social sciences

Parenting in the 21st Century

Edited by
Christy M. Buchanan and Terese Glatz

Printed Edition of the Special Issue Published in *Social Sciences*

www.mdpi.com/journal/socsci

MDPI

Parenting in the 21st Century

Parenting in the 21st Century

Editors

Christy M. Buchanan
Terese Glatz

MDPI

Editors

Christy M. Buchanan
Department of Psychology
Wake Forest University
Winston Salem
United States

Terese Glatz
School of Law, Psychology
and Social Work
Örebro University
Örebro
Sweden

For citation purposes, cite each article independently as indicated on the article page online and as indicated below:

LastName, A.A.; LastName, B.B.; LastName, C.C. Article Title. *Journal Name* **Year**, *Volume Number*, Page Range.

Contents

About the Editors

Christy M. Buchanan

Christy M. Buchanan is a Professor of Psychology at Wake Forest University, NC, USA. Her research focuses on adolescence and emerging adulthood and has addressed how characteristics of the family (e.g., family structure, family relationships, parenting practices, ethnicity) and of the individual (e.g., beliefs about development, biological change) are associated with one another and with adjustment during this time of life. She has a special interest in predictors of parenting and parent-child relationships during adolescence.

Terese Glatz

Terese Glatz is an Associate Professor of Psychology at Örebro University, Sweden. She studies parenting, parent-child relationships, and children's and adolescents' development. Her main research regards parents'perceptions of their parenting role, what might influence their sense of competence as parents, and how this makes them relate and behave towards their children. Another research area concerns parents' use of the Internet and social media.

Editorial

Introduction to Special Issue "Parenting in the 21st Century"

Christy M. Buchanan [1],* and Terese Glatz [2],*

1   Psychology Department, Wake Forest University, Winston-Salem, NC 27109, USA
2   School of Law, Psychology, and Social Work, Örebro University, 702 81 Örebro, Sweden
*   Correspondence: buchanan@wfu.edu (C.M.B.); terese.glatz@oru.se (T.G.)

1. Introduction

The nature of parenting and parent–child relationships is often dramatically affected by the historical period in which one raises children. Historical changes in a myriad of possible areas, ranging from gender roles and healthcare to technological innovations and globalization, influence values, norms, and expectations for parents as well as the unique opportunities, pressures, and challenges they face in raising healthy children.

Historical and cultural change over the 20th and 21st centuries has been rapid and all-encompassing. The invention, rise, and pervasiveness of smartphones and social media is only one example of a historical development that has rapidly and dramatically changed the landscape of parenting over the first two decades of the 21st century. Many other technological, scientific, and social changes of the 21st century have affected the task of parenting and parent–child relationships directly or indirectly. The impact of these changes has sometimes been positive, sometimes negative, and sometimes both simultaneously. To make things even more complex, the impact sometimes has universal features, or sometimes varies for parents in different demographic (e.g., racial, ethnic, and economic) contexts.

In this Special Issue, we sought to explore some of the distinctive features of and challenges for parents in the 21st century. The papers include review and reflection pieces as well as new empirical pieces addressing historically important aspects of parenting. Each paper contains interesting details that are worth fully exploring. Here, we point to three overlapping themes from these papers, and their relevance for parents, practitioners, and researchers today. These themes are Managing Stress, Supports for Effective Parenting, and Emphasis on Supporting Children's Independence and Competence for an Uncertain Future.

2. Managing Stress

We cannot claim that parenting is more or less stressful during one historical period versus another for many reasons, including that we very seldom have direct historical comparisons of parental stress using comparable measures. Certainly, there have been *different* stresses for parents in different historical periods. For example, advances in science, technology, and globalization have reduced stress for many (though certainly not all) parents when it comes to providing food, education, health care, and opportunity to their children. Some of these same or related changes have created new challenges and different stresses. For example, greater global connectedness and mobility, "expert" scientific medical advice, and "fast" or processed foods have contributed to physical—if not emotional— distance among extended families and new health problems. People can more easily move within or across national borders to pursue what they believe will be better educational or employment opportunities, but if they do, extended family members are less available for help with parenting (Atkinson 2022). Parents who live in contexts where modern vaccines are widely available might have fewer worries about children contracting smallpox or polio, but more worries about conditions related to modern nutrition or lifestyle practices,

such as diabetes or attention deficit hyperactivity disorder (ADHD). Many parents in the 21st century now have the ability to keep close track of their children using cell phones, enhancing safety, but they also have to address how to manage children's access to the internet and social media. Therefore, stresses have changed over time, and we cannot say with confidence that parenting is more stressful in the 21st century than it has been in the past.

However, some of the articles in this Special Issue point to evidence of an objectively high level of stress among parents, and a *perception* that the stress of parenting has increased. For example, a majority of parents in a German sample (Walper and Kreyenfeld 2022) reported feeling high or increasing pressure in multiple domains: time, finances, and education of their children. Additionally, Dupont et al. point to indicators that parental "burnout" (exhaustion due to chronic stress, Mikolajczak et al. 2021) is a historically new phenomenon that has increased over recent decades.

Therefore, at a minimum, it is clear from the papers in this Special Issue that 21st century parents feel stressed and that this stress emanates from current realities that reflect both ongoing and new issues for parents, issues to which practitioners and researchers should attend. One newer issue is an increasingly child-centered culture, dubbed by Dupont et al. as the "cult of the child". These authors provide an intriguing and insightful analysis of historical and societal emphasis on children's interests, and the consequences of excessive emphasis on children's needs for both parents and children. Walper and Kreyenfeld refer to a similar phenomenon when they refer to the "intensification of parenting", which they argue has resulted from changes in gender roles and employment, family structure, and changing norms and expectations for parenting. Importantly, non-resident fathers, who have often been neglected in both research and practice (as have fathers in general, Zimmermann et al. 2022), appear subject to these pressures just as other parents are. It might be worth noting that despite historical changes in parenting and expectations for parenting, Zimmermann et al. do not find corresponding changes in children's behaviors towards parents or relative preference of parents. These authors speculate that children's age-specific needs have not changed over time, although given that research does not address children's perspective on expectations for parenting, historical stability in their expectations remains an untested assumption.

Negotiating changing values can also create stress. Kuczynski et al. illustrate how complex and emotionally challenging it can be to engage in positive parenting, which has received increasing emphasis in recent decades. In valuing children's autonomy and assertiveness, and child-oriented and relational goals rather than parental goals, parents tolerate and give legitimacy to children's right to resist them and to express negative emotions, all of which can be taxing. Lansford et al. similarly point to global social changes that have likely increased the number of parents within many countries who possess a mix of individualistic and collectivistic, or authoritarian and progressive, values. Trying to achieve a complicated mix of sometimes new-fangled values in one's larger cultural context is likely not easy and might easily entail ambivalence and stress.

Twenty-first century technology also presents new and ever-changing stressors (Jensen et al. 2021; Lippold et al. 2022). The omnipresence of smart phones and other portable devices for both parents and children creates challenges for parents as they seek to protect their children and raise them to be physically and mentally healthy. Beyond the challenges involving monitoring and regulating exposure to information on these devices, parents' own use of these ubiquitous devices can compromise their parenting if they are not consciously mindful about usage (Lippold et al. 2022); the stress of finding a personal balance in technology use can itself be mentally and physically exhausting. Once children reach adolescence and emerging adulthood, parents struggle regarding how to use technology in a way that promotes healthy communication and parental support while encouraging healthy autonomy. Parents might find it frustrating when their older children do not offer them information, and they might be inclined to push for or demand information (Jensen et al. 2021). Jensen et al.'s findings suggest that waiting for older youth and young adults

to initiate such contact is ultimately more positive for the relationship. Mindful parenting practices might help parents be patient as they wait for their children to communicate (Lippold et al. 2022). Much more research is needed to help guide parents in the challenges regarding ever-changing technology.

Technology and social media have also given parents incredible access to parenting "wisdom" and advice. Atkinson's engaging photographic history points out that a plethora of parenting "experts" have provided advice that is unfortunately often confusing and stressful for parents, and sometimes outright wrong. The stress such information can create is perhaps especially likely given the historical reality highlighted: trusted experts have often provided guidance that has more to do with "selling" something (from middle-class values to products) than science (Atkinson 2022). Those of us who research parenting clearly believe there is value in gathering scientific data to support effective parenting and healthy child development. Nonetheless, the validity of expert advice that reaches parents—and the motivation for such advice—can be very difficult for parents to discern in the moment. This reality speaks to the continuing importance, in the 21st century, of good communication and collaboration between scientists, practitioners, and policy makers, not only to ensure that the implications and limitations of science are relayed clearly and accurately, but also to implement evidence-based randomized trials that test the effectiveness of practices and programs informed by science.

The research in this volume also highlights how stresses, and effective responses to them, differ for parents of different ethnic and economic groups. Beasley et al.'s work demonstrates how poverty continues to create stressors in many domains (basic food and shelter, education, health care) in the 21st century, and these stressors are a more frequent reality for ethnic and racial minorities as well as parents with lower education (Beasley et al. 2022; Walper and Kreyenfeld 2022). The authors highlight a range of policy measures (e.g., increasing the minimum wage; providing help with childcare and higher education costs) that would help parents in the U.S. to address these stressors.

Several authors (Beasley et al. 2022; Benito-Gomez 2022; Christophe et al. 2022; Updegraff et al. 2022) also address stresses specific to parents who are, and/or whose children are, members of minority and/or marginalized groups. Racism, discrimination, and prejudice in various forms are still facts of life in the 21st century and create stress for parents and children alike. Immigrant parents are commonly confronted with a mismatch between heritage cultural values and the dominant cultural values to which their children are exposed outside of the home (Benito-Gomez 2022), as well as anti-immigrant attitudes and policies that have increased for some groups (Updegraff et al. 2022). Christophe et al.'s work highlights the potential stress of racial socialization required of minority parents, and the value of parents' critical consciousness in helping with this task. Critical consciousness and effective racial socialization add to the array of knowledge and tasks required of parents to raise healthy children, tasks that White parents can ignore without peril if they so choose. Of course, dealing with racism, prejudice, discrimination, and racial socialization in the U.S. and other places is not new for parents. However, in the 21st century, the critical consciousness and related skills needed might be less obvious or easily obtained, given the purported progress that has been made in civil rights over recent decades and the assumption by many that we live in a post-racial society and that racism is a thing of the past. In other words, it might be harder for parents in the 21st century to understand and articulate the dangers that lurk for their children in such a world. Educators, practitioners, and researchers can contribute to addressing this need for parents of diverse backgrounds through the dissemination of research and the development of programs and policies.

Finally, relevant to the theme of parenting stress, Skinner et al.'s work shows how parents can promote resilience when faced with community-wide stressors such as those that the world experienced with COVID-19. In their study of families across nine countries, surprising results revealed that some parenting practices normally seen as negative (i.e., psychological control) might have a beneficial effect for children under especially stressful and uncertain situations. These findings suggest the importance of examining the impact

of parenting in a variety of different circumstances, not just culturally, but with respect to community-wide threats, in order to provide guidance to parents on the most effective strategies for helping their children through such difficult times.

3. Supports for Effective Parenting

Clearly, there are many stresses faced by parents in the 21st century, perhaps at a level that is unprecedented. Fortunately, there are some supports for parenting that are historically new. We recognized a pervasive focus on relational aspects of parenting in the Special Issue, along with tools for enhancing this relationship. For example, despite its drawbacks, technology can be used to enhance the parent–child relationship. Jensen et al. demonstrate that the availability of texting can indeed be used effectively to support children and to enhance the parent–child relationship as children gain independence and spend most of their time outside of the family. Lippold et al. provide a clear and helpful delineation of both the negative and the positive implications of technology use for mindful parenting. Current attention to mindfulness and applying centuries-old practices and understandings of mindfulness to multiple contexts—including parenting—is also a 21st century development in many Western countries. An emphasis on and the availability of mindfulness tools—in general and specifically for parenting—has the potential to be helpful to parents. However, although in-person mindful parenting interventions have shown promising effects (for reviews, see Lippold and Duncan 2018; Townshend et al. 2016), many popular mindfulness apps are not evidence-based and little is known about their effectiveness (Mani et al. 2015; Schultchen et al. 2020), and therefore more research and app development may be needed.

Another potential support for parents in the 21st century is an increased focus among psychologists on positive aspects of psychology, including the promotion of positive behavior in adolescents in particular. Although excessive emphasis on positive parenting and involvement can become debilitating (as covered earlier, Dupont et al. 2022; Kuczynski et al. 2021), evidence also shows that awareness of and reasonable use of these strategies leads to good outcomes. Several of the articles in this issue articulate the value of positive parenting behavior to the emotional security of the parent–child relationship and to child outcomes (Benito-Gomez 2022; Updegraff et al. 2022; Zimmermann et al. 2022). The increasing focus on positive psychology has extended to research on adolescence, which is reflected in other articles within this issue. Kaniušonytė et al. illustrate that positive characteristics in areas such as character and caring early in adolescence can have cascading positive effects on adolescents' later perceptions of their relationship with their parents. Their research suggests that efforts to promote prosocial development (and not only to *avoid* negative developments, which has long been the focus with respect to adolescence) might positively affect the parent–child relationship during a developmental time that has been long stereotyped as a time of risk-taking, rebellion, and distancing—if not outright rejection—of parents (Buchanan and Bruton 2016). The authors also speculate that the increasing emphasis on and opportunities for adolescents to be socially engaged might result in overall improved parent–child relationships in the 21st century, which could be an interesting topic of further research. In a similar vein, Jensen et al. illustrate how judicious use of cell phone technology can promote positive parent–child relationships during emerging adulthood. Given their finding that the majority of parents never sent a text providing emotional/esteem support, encouraging parents to do so could have positive payoffs. In summary, although the *existence* of positive parenting and positive youth development is not historically new, a greater recognition and articulation of positive developments and opportunities—in research, media, parenting resources, and by practitioners—can be encouraging to parents and help, over time, to promote even more positive outcomes among both parents and children.

A final potentially supportive feature of parenting in the 21st century that emerges from these articles is the increasing research, and resulting knowledge, available for parents in contexts other than WEIRD (White, educated, industrialized, rich, democratic; Thalmayer

et al. 2021) or mainstream (e.g., one might add "abled" and "neurotypical" to the list above). Atkinson's article on the history of parenting advice illuminates how, for much of the 20th century, advice and marketing failed to take into account parents outside of the dominant culture. Two multi-country studies in this issue (Lansford et al. 2021; Skinner et al. 2022) illustrate the proliferation of information on parenting outside of the U.S. and other Western cultures, and the growing understanding of important cultural differences and similarities. Other work (Benito-Gomez 2022; Christophe et al. 2022; Updegraff et al. 2022) does the same for parents in minoritized groups within the U.S. McCauley et al.'s work supports the historical move away from negative, "maternal blame" stereotypes in families with autistic children, showing that parents of autistic children look much like parents of non-autistic children with respect to supportive behavior, even despite facing more difficulties engaging their children (McCauley and Solomon 2022), and face more unique parenting challenges in general (Schieve et al. 2007). Overall, the articles give us perspectives on variations in parenting experiences and practices across historical (Atkinson 2022; Dupont et al. 2022), geographic (Lansford et al. 2021; Skinner et al. 2022), family structure (Walper and Kreyenfeld 2022), gender (Dupont et al. 2022; Jensen et al. 2021; Lansford et al. 2021; Walper and Kreyenfeld 2022; Zimmermann et al. 2022), racial/ethnic (Beasley et al. 2022; Benito-Gomez 2022; Christophe et al. 2022; Updegraff et al. 2022), religious (Lansford et al. 2021), socioeconomic (Beasley et al. 2022; Christophe et al. 2022; Lansford et al. 2021; Updegraff et al. 2022; Walper and Kreyenfeld 2022), and neurotypical (McCauley and Solomon 2022) contexts. Such work can potentially help parents in previously neglected or negatively stereotyped groups to feel less alone, less judged, and more understood in their parenting values and practices.

Relevant to the emphasis on diversity and caution about overgeneralizations, several studies in this issue point to the importance of measuring "cultural values" at the individual (parent) level as well as at the group (e.g., ethnic group, country, gender) level (e.g., Benito-Gomez 2022; Lansford et al. 2021; Updegraff et al. 2022). Although both individual and group differences in values such as individualism have no doubt always existed, Lansford et al. point out that the demographic shifts and technological innovations of the 21st century have likely led to increasing variation between individuals within countries. Encouraging parents and those who work with them to recognize that variation might give parents more confidence to trust their instincts, because the standards and values for parenting may feel less monolithic within the larger community or context.

Altogether, these papers indicate a move toward better knowledge and understanding of diverse parenting in the 21st century. This provides hope for a broader array of parents to more easily find support, encouragement, and resources that were not available to them twenty or thirty years ago. For this hope to be realized, efforts are needed to translate research into programs and policies within diverse contexts and populations.

4. Autonomy with Relational Competence: Fostering Competence for an Uncertain Future?

Like parents across the centuries, parents today aim to help their children develop the competencies they will need to be successful adults in the future. In the 21st century, what these competencies are might be less obvious than it has been in earlier times. We noticed that some articles in this Special Issue focused on the development of competencies that might support success in a range of uncertain futures. For the parents reflected in this set of papers, who were predominantly but not exclusively Western, that seemed to include finding a healthy balance between nurturing personal autonomy and relational skills. Allowing children to exercise expression and practice independence arose as a theme, whether in the context of school-aged children resisting parents (Kuczynski et al. 2021) or communication through texting among emerging adult children (Jensen et al.). However, parents emphasized personal expression that was socially skilled and took others into account (Kuczynski et al. 2021). Altogether, the data support parental recognition of the child as an active agent in relationships who needs guidance toward healthy interconnect-

edness (see also Kaniušonytė et al. 2021; Skinner et al. 2022). In general, aiming for this balance seems similar to parenting advice promoted in Western cultures over the past century (i.e., authoritative parenting; Pinquart 2017; Pinquart and Kauser 2018), with the idea that children benefit from independence, but not total freedom, as they learn to engage in socially acceptable ways (Dupont et al. 2022).

However, Lansford et al.'s paper raises the possibility that emphasis on collectivist (e.g., relational) values might be increasing in contexts that were once more individualistic, and that emphasis on individualistic (e.g., personal autonomy) values might be increasing in contexts that were once more collectivistic. Whether this melding of values is reflected in an increasing concern with socializing both independence and relational skills, and whether a balance of these attributes is seen as the best way to position children for success in a rapidly changing world, would be interesting research questions.

5. Conclusions

The set of articles in this Special Issue cover a wide variety of specific topics, and each article articulates in detail the implications of their work for parents, policymakers, practitioners, and researchers in the 21st century. We have identified three themes that emerge across the articles. The first is that there is plentiful evidence for the existence of high parental stress. Whether this stress is higher than in past decades we cannot say, but it is a reality of modern parenting that parents experience and that practitioners and policymakers need to acknowledge and address. Researchers can build on these data to further elucidate and illuminate sources of stress and strategies for management. The second theme is that there are indeed improved supports for 21st century parents in many respects, supports that should be put to use by practitioners and policy makers. However, research is needed that addresses when and how parents in diverse contexts access these supports and use them effectively, and practitioners and policymakers should rely on empirically supported strategies. Additionally, fathers should be included more often in this research (Walper and Kreyenfeld 2022; Zimmermann et al. 2022). Finally, the articles suggest that today's parents continue, like parents in the past, to focus on a balance between socializing children for independence and positive relationships. How parents in the 21st century prioritize these values and attributes might be shifting, perhaps due to uncertainties about the future that awaits 21st century children, but more research is needed to understand how aspects of today's society, within and across cultures, might influence these priorities.

References

Atkinson, V. Sue. 2022. Every Picture Tells a Story: Parenting Advice Books Provide a Window on the Past. *Social Sciences* 11: 11. [CrossRef]

Beasley, Lana O., Jens E. Jespersen, Amanda S. Morris, Aisha Farra, and Jennifer Hays-Grudo. 2022. Parenting Challenges and Opportunities among Families Living in Poverty. *Social Sciences* 11: 119. [CrossRef]

Benito-Gomez, Marta. 2022. Understanding the Role of Parental Control in Early Childhood in the Context of U.S. Latino Families in the 21st Century. *Social Sciences* 11: 96. [CrossRef]

Buchanan, Christy M., and Johna L. Bruton. 2016. Storm and stress. In *Encyclopedia of Adolescence*. Edited by Roger J. R. Levesque. New York: Springer. [CrossRef]

Christophe, N. Keita, Gabriela Livas Stein, Lisa Kiang, Natasha C. Johnson, Shawn C. T. Jones, Howard C. Stevenson, Nkemka Anyiwo, and Riana E. Anderson. 2022. A 21st Century Take on Racial-Ethnic Socialization: Patterns of Competency and Content among Diverse Parents of Color. *Social Sciences* 11: 88. [CrossRef]

Dupont, Serge, Moïra Mikolajczak, and Isabelle Roskam. 2022. The Cult of the Child: A Critical Examination of Its Consequences on Parents, Teachers and Children. *Social Sciences* 11: 141. [CrossRef]

Jensen, Michaeline, Andrea M. Hussong, and Emily Haston. 2021. Digital Parenting of Emerging Adults in the 21st Century. *Social Sciences* 10: 482. [CrossRef]

Kaniušonytė, Goda, Mary Page Leggett-James, and Brett Laursen. 2021. A Longitudinal Examination of Perceived Parent Behavior and Positive Youth Development: Child-Driven Effects. *Social Sciences* 10: 369. [CrossRef]

Kuczynski, Leon, Taniesha Burke, and Pauline Song-Choi. 2021. Mothers' Perspectives on Resistance and Defiance in Middle Childhood: Promoting Autonomy and Social Skill. *Social Sciences* 10: 469. [CrossRef]

Lansford, Jennifer E., Susannah Zietz, Suha M. Al-Hassan, Dario Bacchini, Marc H. Bornstein, Lei Chang, Kirby Deater-Deckard, Laura Di Giunta, Kenneth A. Dodge, Sevtap Gurdal, and et al. 2021. Culture and Social Change in Mothers' and Fathers' Individualism, Collectivism and Parenting Attitudes. *Social Sciences* 10: 459. [CrossRef]

Lippold, Melissa A., and Larissa D. Duncan. 2018. Mindful Parenting. In *Encyclopedia of Adolescence*. Edited by R. Levesque. New York: Springer, pp. 2343–49.

Lippold, Melissa A., Brandon T. McDaniel, and Todd M. Jensen. 2022. Mindful Parenting and Parent Technology Use: Examining the Intersections and Outlining Future Research Directions. *Social Sciences* 11: 43. [CrossRef]

Mani, Madhavan, David J. Kavanagh, Leanne Hides, and Stoyan R. Stoyanov. 2015. Review and evaluation of mindfulness-based iPhone apps. *JMIR mHealth and uHealth* 3: e4328. [CrossRef] [PubMed]

McCauley, James B., and Marjorie Solomon. 2022. Characterizing Parent–Child Interactions in Families of Autistic Children in Late Childhood. *Social Sciences* 11: 100. [CrossRef]

Mikolajczak, Moïra, James J. Gross, and Isabelle Roskam. 2021. Beyond Job Burnout: Parental Burnout! *Trends in Cognitive Sciences* 25: 333–36. [CrossRef]

Pinquart, Martin. 2017. Associations of parenting dimensions and styles with internalizing symptoms in children and adolescents: A meta-analysis. *Marriage & Family Review* 53: 613–40. [CrossRef]

Pinquart, Martin, and Rubina Kauser. 2018. Do the associations of parenting styles with behavior problems and academic achievement vary by culture? Results from a meta-analysis. *Cultural Diversity and Ethnic Minority Psychology* 24: 75–100. [CrossRef]

Schieve, Laura A., Stephen J. Blumberg, Catherine Rice, Susanna N. Visser, and Coleen Boyle. 2007. The relationship between autism and parenting stress. *Pediatrics* 119 (Suppl. 1): S114–21. [CrossRef] [PubMed]

Schultchen, Dana, Yannik Terhorst, Tanja Holderied, Michael Stach, Eva-Maria Messner, Harald Baumeister, and Lasse B. Sander. 2020. Stay present with your phone: A systematic review and standardized rating of mindfulness apps in European app stores. *International Journal of Behavioral Medicine* 28: 552–60. [CrossRef] [PubMed]

Skinner, Ann T., Leyla Çiftçi, Sierra Jones, Eva Klotz, Tamara Ondrušková, Jennifer E. Lansford, Liane Peña Alampay, Suha M. Al-Hassan, Dario Bacchini, Marc H. Bornstein, and et al. 2022. Adolescent Positivity and Future Orientation, Parental Psychological Control, and Young Adult Internalising Behaviours during COVID-19 in Nine Countries. *Social Sciences* 11: 75. [CrossRef]

Thalmayer, Amber Gayle, Toscanelli Cecilia, and Arnett Jeffrey Jensen. 2021. The neglected 95% revisited: Is American psychology becoming less American? *American Psychologist* 76: 116–29. [CrossRef] [PubMed]

Townshend, Kishani, Zoe Jordan, Matthew Stephenson, and Komla Tsey. 2016. The effectiveness of mindful parenting programs in promoting parents' and children's wellbeing: A systematic review. *JBI Evidence Synthesis* 14: 139–80. [CrossRef]

Updegraff, Kimberly A., Adriana J. Umaña-Taylor, Daye Son, and Karina M. Cahill. 2022. Mother–Child Relationships in U.S. Latinx Families in Middle Childhood: Opportunities and Challenges in the 21st Century. *Social Sciences* 11: 8. [CrossRef]

Walper, Sabine, and Michaela Kreyenfeld. 2022. The Intensification of Parenting in Germany: The Role of Socioeconomic Background and Family Form. *Social Sciences* 11: 134. [CrossRef]

Zimmermann, Peter, Laura Elise Mühling, Lucie Lichtenstein, and Alexandra Iwanski. 2022. Still Mother after All These Years: Infants Still Prefer Mothers over Fathers (If They Have the Choice). *Social Sciences* 11: 51. [CrossRef]

Article

Every Picture Tells a Story: Parenting Advice Books Provide a Window on the Past

V. Sue Atkinson (ID)

Department of Teaching, Learning, and Schooling, Binghamton University, Binghamton, NY 13902, USA; atkinson@binghamton.edu

Abstract: This paper comprises a collection of illustrations, along with background information, analysis, and commentary, from "baby books"—advice books published in the United States for a parent audience from the 1890s to the 1980s. These publications, and especially their drawings and photos, provide a window on past child rearing practices and beliefs. The paper provides historical background on parenting behaviors such as toilet training and infant feeding, then traces changes over time through drawings and photos that appeared in parenting advice publications. These publications grew in popularity as changing work and family structures removed traditional sources of information for parents, and scientific information and expert guidance took their place. Publications from a variety of sources, but especially the U.S. Children's Bureau, are explored. A finding of note is that images of babies and their families, which in earlier publications were entirely white and middle class, became more diverse over time. The author concludes that published parental advice from professionals made for a fascinating study, was ideologically driven, and often lacked a basis in empirical scientific knowledge of child development, and therefore asserts that parents may regard such advice conditionally.

Keywords: parenting; historical trends; social change; infant care; parenting advice; child care books

1. Every Picture Tells a Story: Parenting Advice Books Provide a Window on the Past

No exploration of parenting in the 21st century would be complete without a look back at parenting practices, beliefs, and customs of the past. One vehicle for viewing these practices is the printed literature on child-raising marketed to parents, which provided them with information and advice on infant care. This paper utilizes parenting literature printed in the United States from the 1890s to the 1980s aimed at English language readers and selected illustrations from that literature beginning in the 1910s in order to illuminate and analyze child rearing advice and practices.

2. Why Parenting Advice Books?

Baby care advice books were not new to the period studied in this paper. Literate mothers in colonial times in America could avail themselves of publications from England, and by 1800, such books were written and published in the United States (Ryerson 1961). However, a number of factors came together in the early 20th century to create an increased demand for these publications. Industrialization that began in the 19th century had altered division of labor in families. Continuing urbanization, as families increasingly lived in cities rather than on farms, meant that nuclear families were less likely to live close to extended family; therefore, mothers lacked communal parenting support they might have found in earlier times. By 1900, the percentage of families living on farms had decreased to 40% (compared to 64% in 1850), and this decline continued throughout the period studied to 32% in 1920, 17% in 1950, and 2% by 1980 (U.S. Census Bureau 2012). Declining infant mortality (Brosco 1999) also contributed to a changed attitude toward children. In 1800, women gave birth to seven children on average, half of whom did not survive to age five,

but by 1900, the average woman had three and a half children, and hoped for each child not only to survive, but to thrive (Ehrenreich and English 2005).

The early 20th century was a time when the public became increasingly interested in science and impressed by modern ways rather than by tradition. All of these factors helped to create a perceived need for parenting information from experts such as that provided by baby care books. Another factor that helped to create an audience for these books was a trend toward women delivering babies in hospitals, with a decrease in home births from 50% to 15% in the period from 1915 to 1930 alone (Grant 1998), as these hospitals sent new mothers home with doctor-endorsed baby care publications.

3. Do Parenting Advice Books Reflect the Parenting Practices of the Period?

Historians and other scholars disagree on the extent to which parenting advice publications reflected actual parenting practices. Writing about advice to women over two centuries, Ehrenreich and English (2005) assumed that such advice affected behavior, as did developmental child psychologist Bronfenbrenner (1961). Bronfenbrenner wrote, specifically about parenting advice publications, "Mothers not only read these books, but [they] take them seriously, and their treatment of the child is affected accordingly." However, historian Mechling (1975) held that child rearing manuals reflected cultural values rather than actual parenting practices. Grant (1994, 1998), in a study of mothers' groups in Upstate New York in the 1920s found that baby care books provided the basis for discussion of child raising practices; however, she also documented "a mixed response" from mothers to the experts' advice (p. 140). Therefore, while such publications may or may not reflect what parents were actually doing at home, they do provide a window into the past, not a precise record of parenting behavior, but of cultural values and goals. British psychologist and best-selling baby book author Penelope Leach (1977) described published parenting advice as "a complex and . . . entrancing folklore of child care which, once upon a time, you might have received from your own extended family" (p. 26).

4. Methods and Materials

This paper samples "baby books"—printed pamphlets and books from a variety of sources including United States Government publications, pamphlets provided to hospital patients, and popular books from other publishers. Convenience sampling was used in collecting publications for study. Riffe et al. (2019) gave three criteria for choosing convenience sampling when studying media, all of which are met in this study: (1) the material is difficult to obtain, a criterion that often applies to older material for which there is no defined census, (2) random sampling is not possible due to resource limitations or the lack of a defined census, and (3) the sample comes from an important but under-researched area. All sources were assessed for documented popularity in the form of sales and readership by parents, university medical school affiliation of the medical doctor authors, publication by well-reputed sources, such as the Parents Association (publishers of *Parents Magazine),* or publication and distribution by the United States federal agency the Children's Bureau, and only those meeting these criteria were studied. The materials cited span the period from the 1890s to the 1980s. Illustrations that appear in this paper were further selected for their status as public domain or noncopyrighted images. These images were primarily published from the 1910s to the 1980s.

The selection of illustrations within the convenience sample followed three steps outlined by Newbold et al. (2002) for media content sampling: (1) selection of the type of media—in this study, books and pamphlets; (2) selection of time period—illustrations were found in publications beginning in 1910 and were present in publications throughout the period studied; and (3) sampling of relevant content from within those media. Step three used particularistic sampling, as I chose those items that I believed best illustrated the content being studied and potentially held interest for my audience. An analysis of the illustrations consisted of direct interpretation (Stake 1995); a method used primarily in case study research. For a more detailed, nonpictorial analysis of some of this literature, see

Atkinson (2017). The illustrations are organized by parenting practices including infant feeding, toilet training, and daily care, and other topics, such as the government's role in providing parenting advice literature and prevalent images in the literature, and are presented chronologically within each topic section.

5. "Uncle Sam Will Help You Raise [Your] Baby"

The United States government played an important role in expanding the reach of parenting advice literature, beginning with the founding of the Children's Bureau in 1912 (National Archives 2016), which reflected a new role for the federal government—the provision of expert child care information and advice for parents. Figure 1 shows the cover of the first edition of the Bureau's flagship publication, the popular and frequently reissued *Infant Care* pamphlet (U.S. Department of Health, Education, and Welfare, Children's Bureau 1965; U.S. Department of Labor, Children's Bureau 1914).
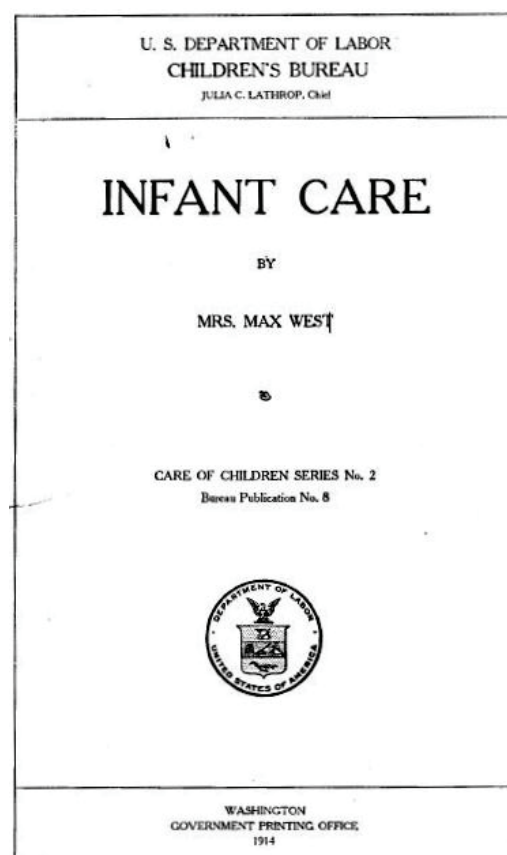
Figure 1. Cover of First Edition of *Infant Care,* published in 1914.

Unlike most baby care books, which were authored by male doctors, Children's Bureau publications were written by the Bureau's mostly female staff. Figure 2 shows a response in the popular press to the new government-issued baby care bulletin. "Do you want your baby to be big and strong and healthy, sound of mind as well as body? Uncle Sam will help you raise just that sort of baby; the kind he wants for future citizens" (Caring for Baby: Suggestions from Uncle Sam 1915, p. 16).

THE READING EAGLE.

READING, PA., SUNDAY, JANUARY 10, 1915—22 PAGES.

CARING FOR the BABY. Suggestions from Uncle Sam.

New Government Bulletin, Just Issued, Contains Many Hints For the Mother —Feeding and Clothing the Baby — His Nursery and Accessories—How to Keep Him Healthy.

Do you want your baby to be big and strong and healthy; normal of mind as well as body? Uncle Sam will help you raise just that sort of baby; the kind he wants and needs for future citizens.

He has wakened to the fact that what the child is, so will the man be; that the most valuable building material in the United States lies in the tiny plastic children who will one day grow into men and women. Wherefore, he has delved deep into the subject of the perfect baby, has investigated, studied and planned just what regime will produce the most desirable child, in the end the most satisfactory citizen.

The sum of his knowledge has been boiled down, put into readable and easily understandable shape, and is now ready to be placed in the hands of every mother and prospective mother in his broad domain.

BABY'S REFRIGERATOR

HOME PASTEURIZER 95¢

refrigerator consists of 1 lb. butter firkin, n pails and a cover for one of with sawdust under and round outer pail.

This pasteurizing consists of 1 tin pail and cover, pie-plate with holes punched in. The pie-plate rests on the bottom

back yard or any protected place, but— and mark this well—see that his eyes are protected from direct sunlight—this is as important sleeping as waking—

Figure 2. 10 January 1915 Edition of the *Reading* (Pennsylvania) *Eagle*.

Infant Care was sold for 10 cents per copy or was distributed free of charge by government agencies, health departments, well-baby clinics, and members of Congress (Hymes 1978), such as North Carolina Congressman Charles Raper Jonas (see Figures 3 and 4).

Infant care

FROM CHARLES RAPER JONAS
MEMBER OF CONGRESS
TENTH DIST. NORTH CAROLINA
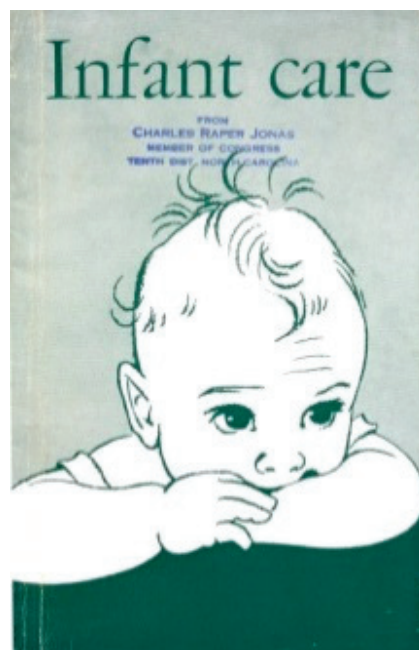
Figure 3. *Infant Care* Cover—1951—Stamped by Congressman.
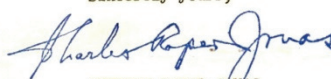
Figure 4. Letter from Congressman to Constituent Accompanying *Infant Care* Booklet.

By 1929, the *Infant Care* booklet had been sold or distributed to parents of 50% of American infants (Ladd-Taylor 1986). The publication was revised and reissued periodically through 1989 (Deavers and Kavanagh 2010).

6. Feeding the Baby

"The Breastfed Baby Is the Best Fed Baby" . . . ?

Throughout history, babies consumed breast milk, either from their own mothers or from a wet nurse (a lactating woman hired to breastfeed a baby other than her own). By the 1890s, "formula" feeding (mixing cow's milk with other substances following a *formula* that would best supply a particular baby's needs) provided an alternative to wet nursing (Wolf 1999). While formula was intended to substitute when mother's milk was unavailable, an odd reversal occurred in that experts' recommendations aimed to make breastfeeding mimic artificial feeding, rather than the other way around. Scheduled breastfeeding began to be recommended in the mid-19th century as experts blamed infant deaths from intestinal infections on contaminated milk (Frant and Abramson 1937; Midsummer Mortality 1899) and on incorrectly mixed formula (Ryerson 1961), but also, in a twist of logic that defies current understanding, on irregularly timed feeding of breastfed babies.

Experts of this period, such as Herman Bundesen (1927, p. 18), quoted above, gave lip service to breastfeeding as the preferred method of infant feeding, while undercutting their stated support with extensive detailed information on formula preparation. Popular baby advice-giver Dr. Emmet Holt (1894) published a pamphlet that he called a "catechism" for mothers entitled *The Care and Feeding of Children*. With 12 revisions and 75 printings, his publisher termed the book the "infant bible of the nation." The new specialty of pediatrics expanded the role of doctors beyond the treatment of ill children to include well-baby and child care, and along with this change, their advice-giving role expanded beyond health

issues. These male physicians, such as Dr. Holt, authored most of the parenting advice literature of the period (Atkinson 2017).

Holt's book recommended strictly scheduled feedings, so the clock, rather than the baby, dictated when these feedings would occur. Babies were to be nursed every 2 h during the day and twice during the night, and these breastfeeding sessions were to last no more than 20 min. Holt's recommendations were identical to his schedule and intervals for bottle feeding. He stressed "regularity; it is just as important as in the case of bottle feeding." Moreover, similar to bottle feeding, "the nipples should be kept clean by being washed after every nursing" (Holt 1894, pp. 20–21). Holt provided detailed information on how to mix the baby's formula: top milk (obtained from having the milk sit for six hours before skimming it off), barley water (boil 2 tablespoons of barley in a quart of water for six to eight hours, then strain through a cloth) combined with sugar in varying proportions (or formulas) as the baby grew (pp. 20–28). This detailed, doctor-endorsed information on a new feeding method exploited the public's new-found interest in modern and scientific ways.

Holt's book contained no illustrations, but in the 1920s, some baby book authors began to include drawings to support their recommendations, as in Figure 5 (Richardson 1925, p. 131).
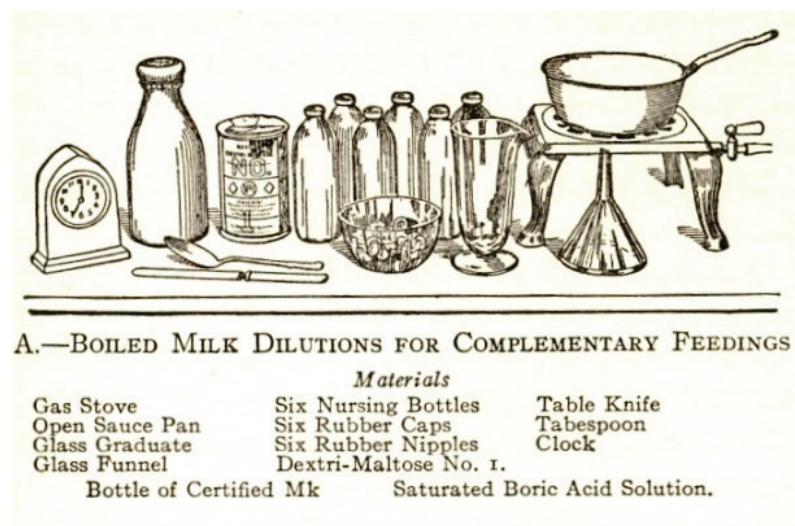
Figure 5. How to Make Baby Formula.

The 1926 and 1935 editions of the US government publication *Infant Care*, recommended limiting nursing to scheduled 20 min sessions every 3–4 h, notably less frequent than the 2 h interval Holt recommended in the 1890s. Figure 6, an illustration from the 1935 issue of *Infant Care* (U.S. Department of Labor, Children's Bureau 1935, p. 70), alluded to this scheduled breastfeeding.

Feed the baby regularly

Figure 6. Nursing "By the Clock".

Richardson (1925) advised mothers to nurse the baby in a quiet place, with no one else in the room, after washing her hands, cleaning her fingernails, and washing her nipples. Mothers were advised to eat fruit and green vegetables, and to drink milk, as long as the quality was good. "If she lives in the country and keeps her own cow . . . she is indeed fortunate" (p. 81). Few mothers could meet these requirements for privacy, cleanliness, timing, and diet, and breastfeeding rates declined during this period (Wolf 2003).

Breastfeeding mothers troubled by sore nipples were advised to use nipple shields to provide relief. "One made of lead is on the market, and can be recommended" wrote Dr. Griffith (1921, p. 27; see Figure 7).
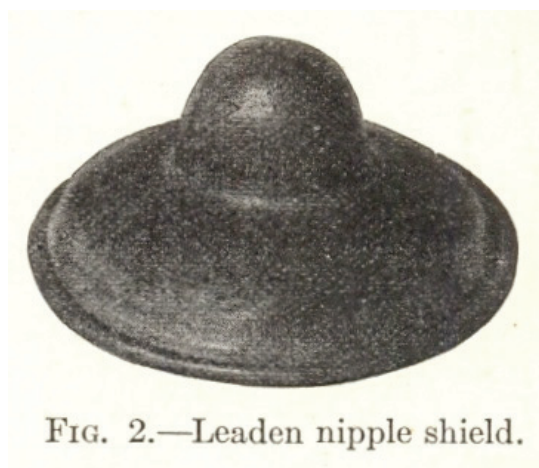
FIG. 2.—Leaden nipple shield.

Figure 7. Lead Nipple Shield, Recommended for Nursing Mother to Shape and Protect Her Nipples.

By mid-century, recommendations for nipple shields made from other materials were accompanied by a warning, "A lead nipple shield should not be used, as it is dangerous" (U.S. Department of Health, Education, and Welfare, Children's Bureau 1951, p. 131).

Mothers were provided with feeding instructions upon leaving the hospital after giving birth. Figure 8 shows a formula card (name and birth date redacted) with recipe, 4 h feeding intervals prescribed, and advertising sent home with a baby born at St. Vincent's Hospital in Bridgeport, Connecticut in 1952.

Figure 8. Recipe, or "Formula," for Baby's Food.

Figure 8 notwithstanding, by the mid-20th century, many experts recommended a more relaxed approach to feeding schedules, with growing emphasis on psychosocial aspects of infant feeding. Child developmental pediatricians Gesell and Ilg (1943) and the very popular Dr. Spock (1946) advised mothers to be guided by the baby's hunger, rather than a schedule. "Start with what he seems to need and work toward what is convenient for all" (Spock 1946, p. 26). Like earlier advice-givers, Spock described breastfeeding as natural and healthy; however, those words were undercut by 19 pages devoted primarily to breastfeeding problems, and 29 pages providing detailed instructions on bottle feeding. Breastfeeding rates continued to decline, reaching an all-time low in 1971 (Wolf 2003).

The 1962 Children's Bureau publication, *Your Baby's First Year* (U.S. Department of Health, Education, and Welfare, Children's Bureau 1962) described infant feeding as providing emotional support as well as nourishment, as seen in Figure 9.

Being fed does more than satisfy your baby's hunger. It makes him feel content and happy. It also can be a pleasant time for you and a time to rest. Get comfortable and relax.

his first food is milk

During the first month, he may need to be fed every 3 or 4 hours, more or less. After that, he will begin to settle down to fairly regular feeding times.

Figure 9. Infant Feeding Provides Nourishment and Affection.

The 1989 edition of *Infant Care* recommended breastfeeding only (no solid food) for baby for the first 4 to 6 months, with nursing continuing until age 1 or beyond. Breastfeeding was described as "the most healthful way of feeding your baby" (U.S. Department of HHS 1989, p. 26). Figure 10 accompanied detailed instructions on positioning the baby for nursing.

Figure 10. How to breastfeed.

7. Weaning and Solid Foods for Baby

Prior to 1900, children were given their first solid foods around 1 year of age (Ryerson 1961). In the early decades of the 20th century, concern about overeating and digestive stress lessened. In the context of aggressive advertising by the baby food industry, doctors recommended starting solid food at much earlier ages. In 1894, Holt advised starting solid food at 10 months, and a Parents Association publication (Beery 1917) gave a detailed account of an 8 ½-month-old baby's daily routine with no mention of solid food. By 1925, however, Richardson wrote that "many of the best men" now recommended that mothers "give solid food much earlier in life than used ever to be thought of. According to this new trend, it is now no uncommon thing to begin the feeding of green vegetables, usually spinach, as early as six months of age" (pp. 192–93). Infant mortality rates had dropped overall and, with safer and more reliable milk supply, no longer spiked in the summer, so the "old fear of weaning in the summer" (pp. 198–99) no longer delayed feeding of other

foods (Duffus and Holt 1940). Figure 11 from the 1935 edition of *Infant Care* shows a baby being fed cereal on mother's lap, now recommended at 5 months.

He is learning to like cereal
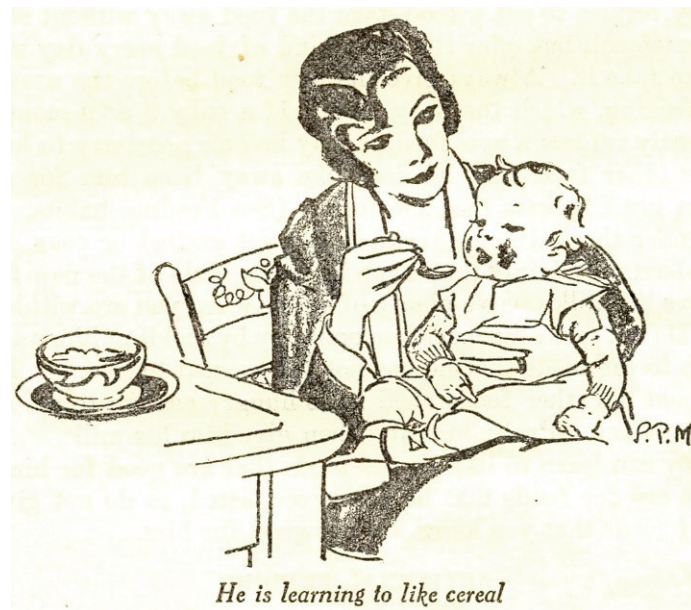
Figure 11. Learning to Like Cereal.

Spock (1946) advised giving the baby orange juice at 6 weeks and starting solid foods between 1 and 4 months of age. By age 6 months, the baby should eat regular meals of fruit, vegetables, meat, cereal, and eggs. Figure 12 from the 1951 edition of *Infant Care* shows baby in a highchair with advice against overreacting to baby's refusal of food.
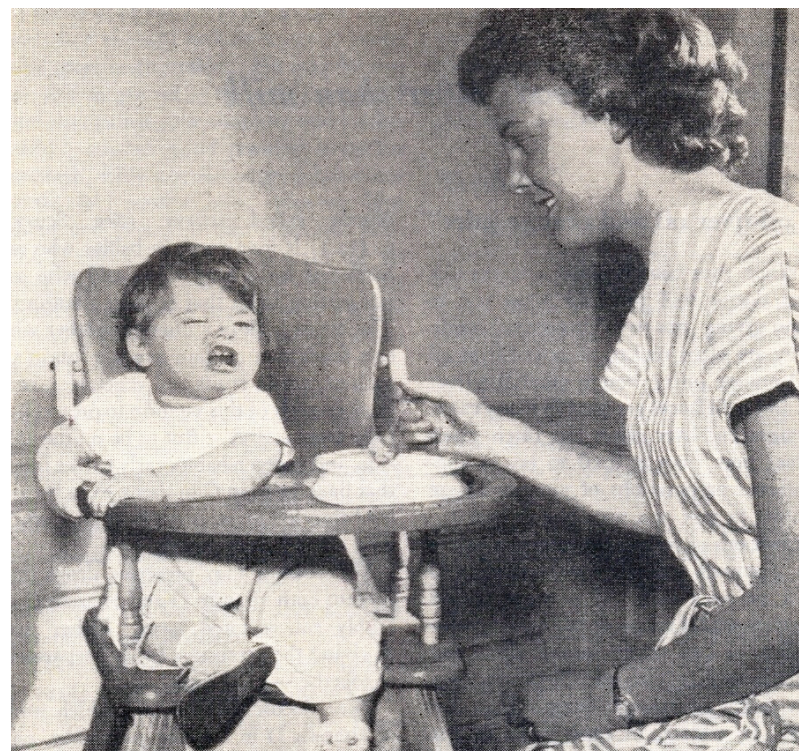
Take turning away from food lightly, and there is little chance of a feeding proble

Figure 12. Photo of Baby Being Fed in Highchair.

Figure 13, from the 1989 edition of *Infant Care*, shows baby in highchair ready for a meal.

Figure 13. Baby Awaits a Meal in Highchair.

8. Toilet Training

In the late 19th century, experts instructed mothers in toilet training, beginning as early as 1 month of age. If mothers encouraged regularity, the baby might be bowel-trained by 3 months, stated Holt (1894). Other advice books also recommended early, but nonpunitive, toilet training. Pediatrician and professor Griffith (1921) recommended that training begin at 3 months, warning, "It need scarcely be remarked that punishment for delinquencies in this line is totally out of the question at any age (pp. 186–87). Richardson (1925) gave detailed, illustrated directions (see Figures 14–17).

Stool Training

It will be well worth while to commence, as early as the 3rd or 4th week, to train him to use

STOOL TRAINING—THE NECESSARY UTENSILS

Knife, any good white soap (preferably not a new cake because the latter breaks when it is whittled to form a suppository), blunt pointed suppository roughly shaped to the size of the little finger, toilet paper, lap chamber.
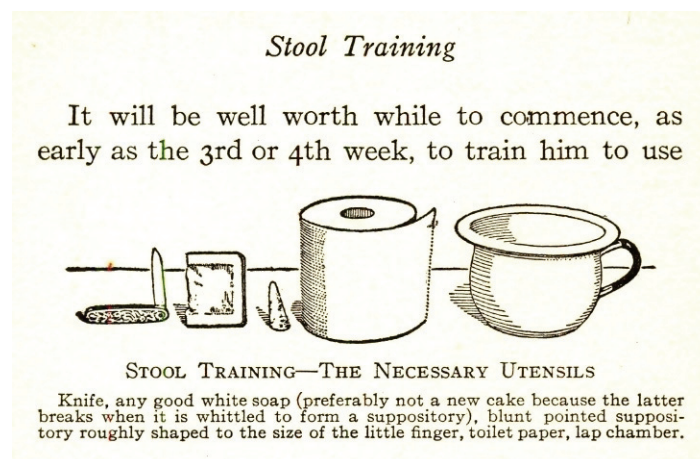
Figure 14. All the Necessary Items for Early Bowel Training.

Mothers were instructed to use the pictured penknife to whittle a small "stick" out of soap and to "apply the chamber." "She should lay him on his back across her lap . . . holding the chamber close up to the buttocks... If, after waiting for a few minutes, the expected stool does not come, she may facilitate matters by inserting the small soap suppository . . . " (pp. 48–50). The contemporary 1926 U.S. government publication, *Infant Care*, advised, "Toilet training may be begun as early as the end of the first month...The first essential in

bowel training IS absolute regularity"(U.S. Department of Labor, Children's Bureau 1926, p. 42–43).

None of the illustrations (uncredited) in Richardson's book show the mother's head.

Mothers were instructed to use the soap suppository if necessary to encourage a timely bowel movement.

STOOL TRAINING—THE PROPER POSITION

The utensils should be placed at the mother's right hand and the child comfortably arranged on the lap upon a towel of ample size, with the head to the mother's left.
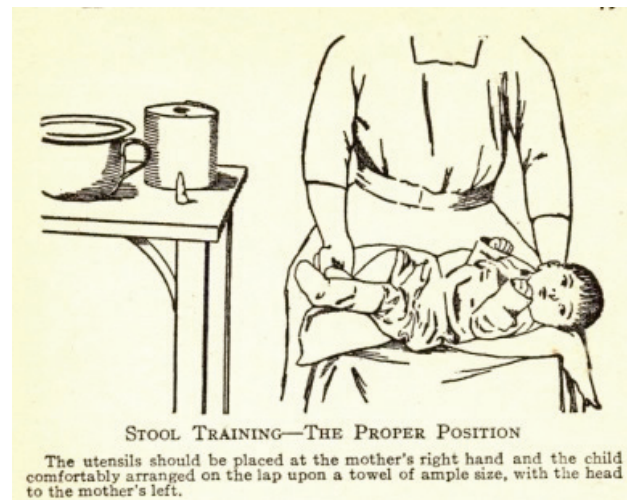
Figure 15. The First Step in Early Bowel Training.

STOOL TRAINING—STIMULATING THE SPHINCTER

The diaper is unpinned; and the soap suppository, held by the large end between the thumb and finger of the right hand, partially inserted into the rectum. The baby's ankles are held by the mother's left hand, with her forefinger held between the ankles. The soap stick is held in place until the first portion of the stool is visible.
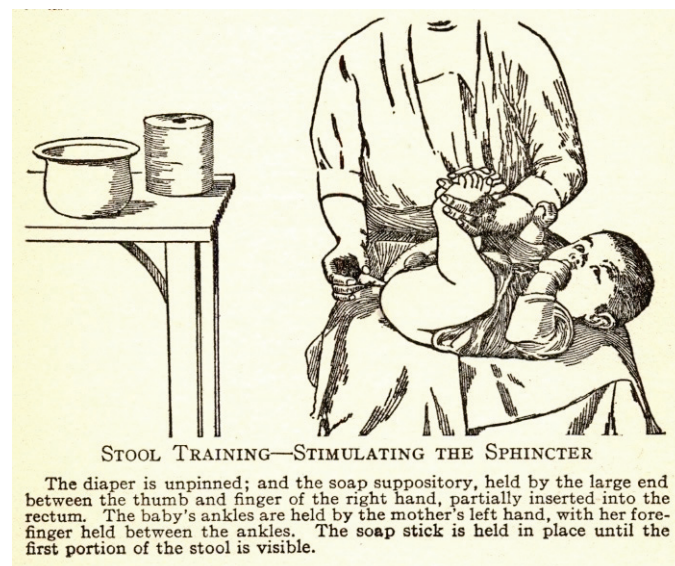
Figure 16. The Next Step in Early Bowel Training–Using the Soap Stick.

STOOL TRAINING—APPLYING THE CHAMBER

As soon as the first portion of the stool appears as the result of the baby's straining in response to the introduction of the soap stick, the mother drops the suppository and applies the chamber to the baby's buttocks. (She does not have the child sit upright upon the chamber but presses the rim of the chamber against the buttocks to induce a bowel movement. Eventually the pressure of the chamber upon the buttocks produces the result unstimulated).

Figure 17. "Applying the Chamber".

The 1935 edition of *Infant Care* (U.S. Department of Labor, Children's Bureau 1935, p. 59) gave similar advice, adding a clock to the necessary utensils and campaign for regularity, as seen in Figure 18.

Start the baby with regular habits
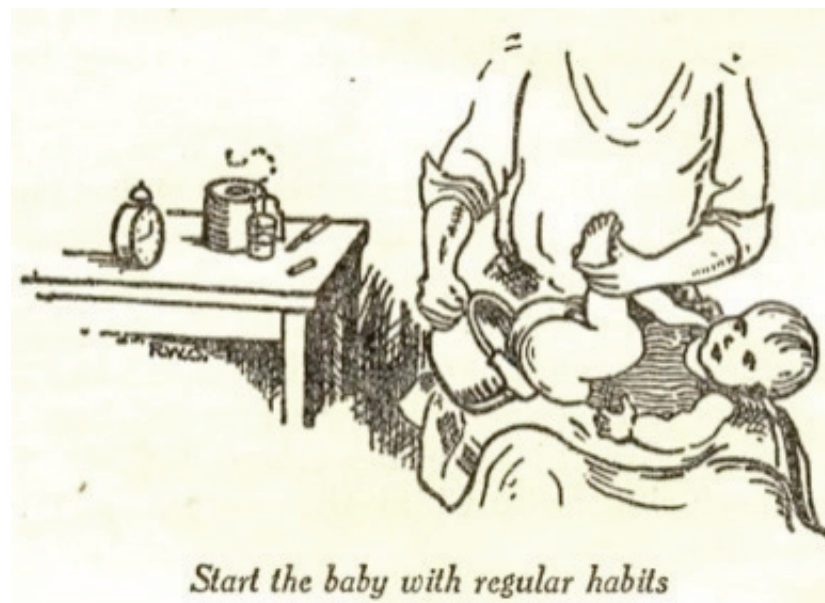
Figure 18. Early Bowel Training.

By the mid-20th century, toilet training advice had changed considerably. Freudian-trained Dr. Spock (1946) urged parents to avoid early and severe toilet training, explaining that "second year possessiveness and balkiness" might actually delay early training efforts. "I don't think there is any one right time or way to begin toilet training," he wrote, providing advice on a variety of methods that began between 12 and 24 months (pp. 190–99). The 1951 edition of *Infant Care,* similar in tone, advised parents to look for readiness and to focus on "having a baby who feels like working with you instead of against you" (p. 87).

The 1962 Children's Bureau publication, *Your Baby's First Year*, advised letting baby set the pace of toilet training (see Figure 19), and by 1989, *Infant Care* included no mention of toilet training.

Figure 19. "Go Slow on Toilet Training".

Some historians have questioned the Freudian explanation for the change in toilet training timeline advice. Gordon (1968) posited the "Maytag hypothesis" (pp. 578–83) that changing technology such as automatic washers and dryers that freed mothers from unpleasant and time-consuming diaper laundering and sterilizing, rather than Freud-inspired expert advice, explained trends toward later toilet training.

9. Fresh Air and Sunshine

"Fresh air is of almost as much importance to the baby as food" (Fischer 1913, p. 5). Starting with the first edition of his book *The Health-Care of the Baby* in 1906, Dr. Fischer, in keeping with his peers, preached the gospel of fresh air as rivaling food in its essentiality. Experts recommended "copious amounts" of fresh air in the baby's room, day and night (Bolt 1924), to purify the blood, provide oxygen, and prevent colds and pneumonia. Fresh air was touted as a cure for many ills, and napping in the open air was recommended, not only in warm weather but during the winter as well. This might take place on a porch, or for city apartment dwellers, in a "window crib" or "balcony cot," a small screened and roofed platform that hung from an apartment window (Hardyment 1983; Richardson 1925). In 1923, Emma Read received a patent for such a "baby cage." Figure 20 shows a drawing from her patent application.
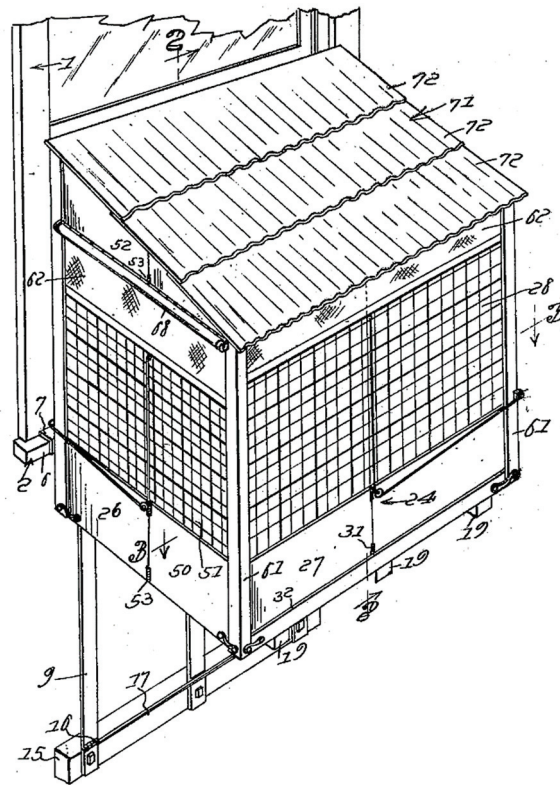
Figure 20. Details from 1922 Patent Application #1448235 for a "Baby Cage" (Read 1923).

The 10th edition of Fischer's book in 1920 included illustrations and an endorsement of the Boggins Window Crib, shown in Figure 21, which Dr. Fischer assessed "absolutely safe."
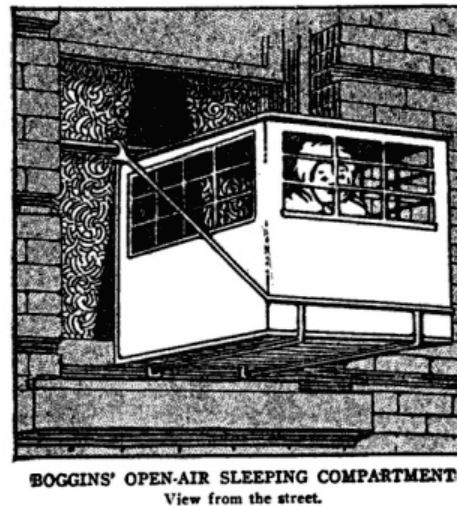
Figure 21. Open Air Window Crib (Fischer 1920, p. 6).

Parenting publications touted the benefits of fresh air and sunshine for general health and well-being as well as for the prevention of rickets, including the U.S. government publication, *Sunlight for Babies* (U.S. Department of Labor, Children's Bureau 1931; Figure 22).

Figure 22. 1931 Children's Bureau Pamphlet.

The 1935 edition of *Infant Care* encouraged sunbathing for baby in order to acquire a healthy tan, as illustrated in Figure 23.
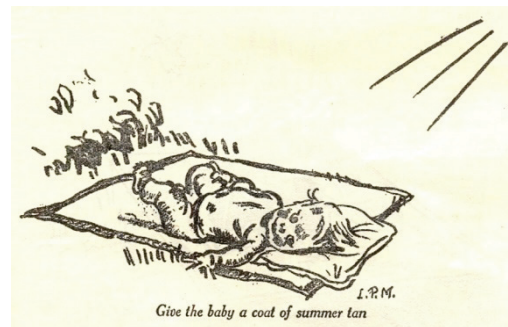
Figure 23. A Summer Tan for Baby.

While recommendations for outdoor naps and open windows in the winter had moderated by the mid-20th century, fresh air and sunshine were encouraged, but with a caveat about "too much sun" (see Figure 24) found in *Your Baby's First Year* (U.S. Department of Health, Education, and Welfare, Children's Bureau 1962).

Figure 24. Fresh Air, but Caution about Too Much Sun.

The 1989 edition of *Infant Care* also recommended fresh air as healthful and as a means of ensuring that the baby would sleep well (U.S. Department of HHS 1989, p. 42).

10. Sleeping and Playing

While expert advice on infant sleep was given independently of advice related to the role of play, those recommendations varied together over time. Early in the period studied, advice-givers focused on ensuring the maximum amount of sleep, and showed no evidence of valuing the infant's daytime experiences in terms of play and learning, as control of the baby's habits took priority (Atkinson 2017).

The term *co-sleeping* (parent(s) and infant sleeping in the same bed) did not appear in printed parenting literature during the period studied. For many centuries, children slept in the parents' bed until age 2 or older, after which they would share a bed with brothers or sisters (Ryerson 1961). Separate beds became common during the 19th century; newborn babies still slept with parents and were moved to their own bed by 1 year of age. In 1878, English doctor Chavasse wrote, "Ought a babe to lie alone from the first? Certainly not . . . he requires the warmth of another person's body" (Chavasse 1878, pp. 3–4). However, by 1984, Holt advised, "Should a child sleep in the same bed with his mother or nurse? Under no circumstances . . . nor should older children sleep together" (p. 50).

Newborn babies were expected to sleep "about nine tenths of the time" and "two thirds of the time" at age 1 year (Holt 1894, pp. 50–51). Holt recommended putting the baby to bed in a crib, awake, in a darkened room. He cautioned that rocking was "by no means [necessary] and a habit easily acquired, but hard to break and a very useless and sometimes injurious one" (p. 51). Crying, he advised, expanded the lungs, and was "necessary for health. It is the baby's exercise" (p. 53). Bolt (1924) warned that, "It is dangerous for it [baby] to go to sleep in the same bed with [mother]. A number of instances have been reported where a mother has unknowingly rolled over on the baby during a sound sleep" (p. 9), evoking a myth debunked by current research (McKenna 2000; McKenna and McDade 2005; McKenna et al. 2007) but persistent into the current era.

Holt's recommendations for regulating and training the young baby's habits contrast with present-day emphasis on the importance of stimulation for intellectual growth. Holt's advice on playing with a baby was, "The less of it at any time the better for the infant" (p. 57). A Parents Association publication (Beery 1917), providing a sample daily routine for 8 ½-month-old "Dickey," assumed a great capacity for the older infant to sleep or to entertain himself for long periods of time, and warned that too much play or excitement might interfere with sleep.

In the 1920s, behavioral psychologist Watson (1928) provided a psychological rationale for discouraging touching, cuddling, or rocking a baby to sleep. That advice was similar to Holt's earlier cautions, though Holt justified his directives with concern for baby's health and mother's workload. Watson claimed that too much handling and kissing was detrimental because it would condition children to expect such treatment as they grew up. In particular, a boy might become a "mama's boy" and expect undue attention and affection from his wife. Watson wrote, "Never hug and kiss them, never let them sit in your lap. If you must, kiss them once on the forehead when they say good night. Shake hands with them in the morning. Give them a pat on the head if they have made an extraordinarily good job of a difficult task" (pp. 81–82).

Watson also viewed excessive handling and attention as a deterrent to an infant exploring and manipulating their environment. This valuing of exploratory play revealed a new perspective on infant development. The contemporary Children's Bureau's *Infant Care* pamphlet (1926) cautioned, "The rule that parents should not play with the baby may seem hard, but it is no doubt a safe one." Playpens became popular, advertised as an alternative to too much handling (see Figure 25; Trimble 1913).
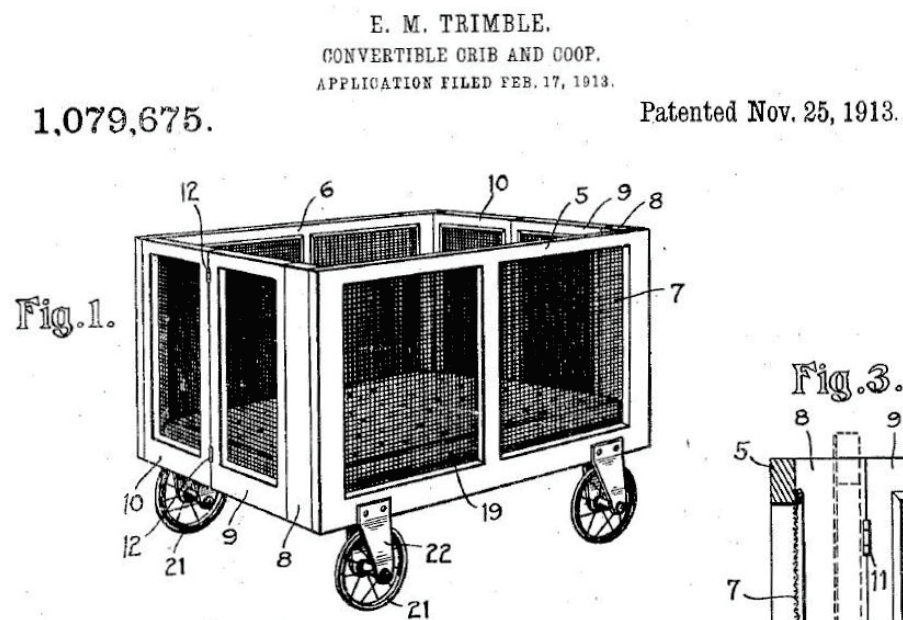
Figure 25. "Kiddie Koop," a Screened Playpen on Wheels, Patented in 1913.

In the 1940s, psychologist and pediatrician Gesell at Yale University Clinic of Child Development and his associate, pediatrician Frances Ilg, advised mothers, "Don't watch the clock, watch the child" (Gesell and Ilg 1943, p. 53). Gesell and Ilg's schedule for a 9-month-old baby differed from that of earlier writers as they recommended flexible times for sleeping (in the parents' room, but not in the parents' bed), waking, and feeding. They described the baby beginning to talk and develop fine motor skills, developmental milestones largely ignored in earlier advice books. Their recommendations validated the baby's needs and preferences, in contrast to earlier advice-givers who interpreted the baby's actions as attempts to manipulate caregivers. Figure 26, from the 1951 edition of *Infant Care*, supports the value of play and exploration by the baby.
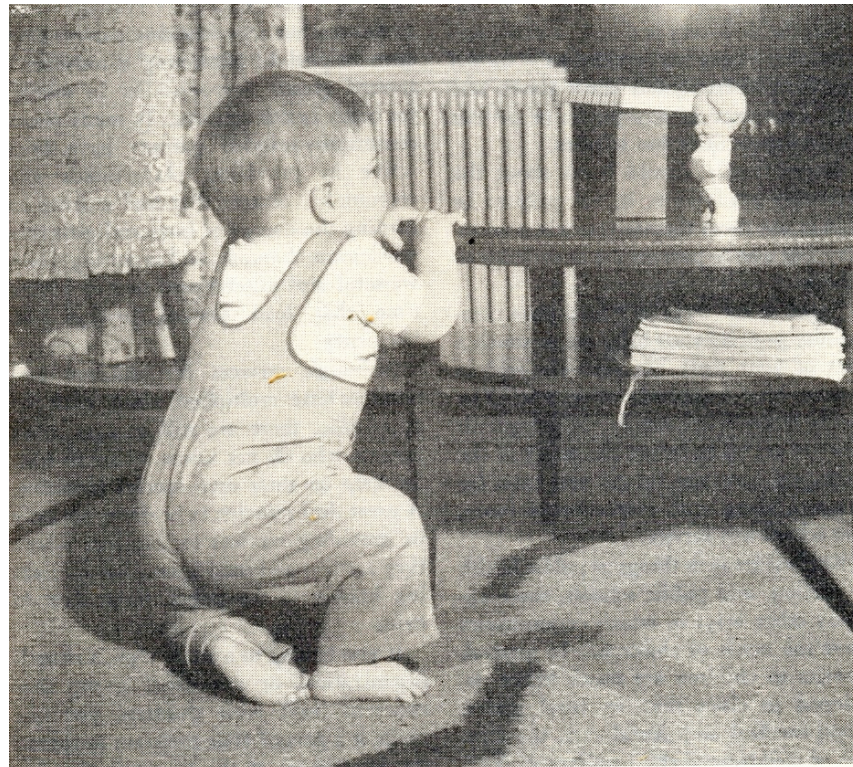
As he grows, baby's really important and exciting job is to explore his surroundings

Figure 26. Baby's Job is Exploring the Environment.

While earlier experts advised against bath toys as a distraction, the 1951 *Infant Care* pamphlet described bath time as a pleasurable activity, as seen in Figure 27.
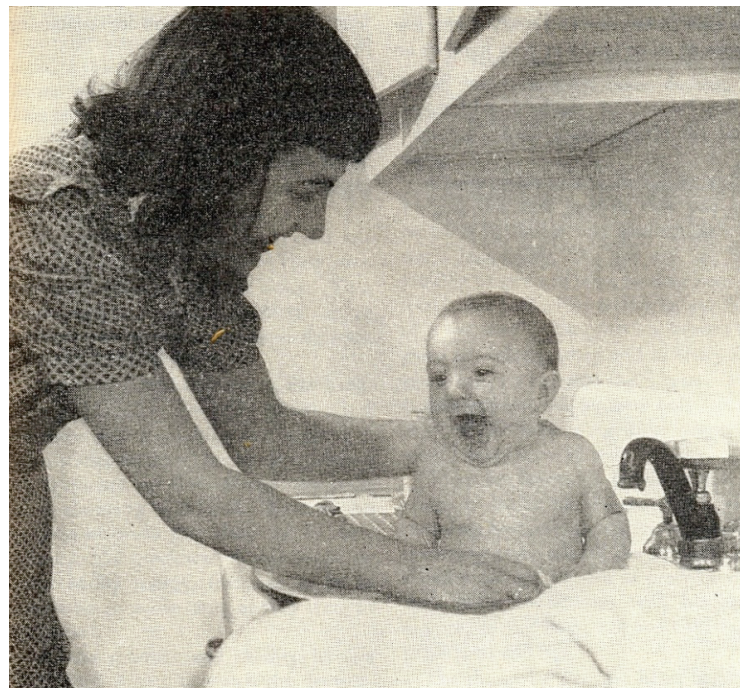
Bath time is play time and one of the day's great pleasures for both mother and baby

Figure 27. Bath Time is Play Time.

By 1962, play was valued not only for enjoyment, but also as a learning activity, as shown in Figure 28 from *Your Baby's First Year* (U.S. Department of Health, Education, and Welfare).

play is a baby's way of learning

When a baby plays, he uses his eyes, mouth, hands, and whole body. Let him have many chances to play. Give him a tin cup, a wooden clothespin, a spool on a looped string, and so on—but not anything sharp, pointed, or small. Best of all, your baby loves to play with you—his parents.

Figure 28. Play is Baby's Way of Learning.

The 1989 edition of *Infant Care* also encouraged play, as shown in Figure 29, encouraging parents to be mindful of safety and aware of developmental changes in the infant.
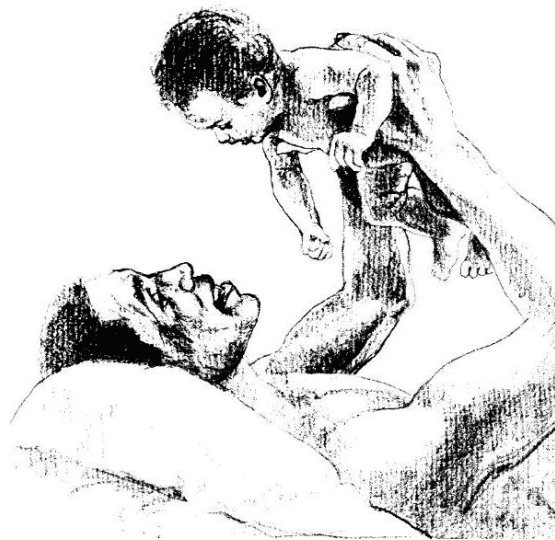
Figure 29. Father plays with baby (U.S. Department of HHS 1989).

11. Images of Babies and Families Overwhelmingly White and Middle Class

The stated aim of the Children's Bureau was to serve "all classes of our people" (U.S. Department of Commerce and Labor, Children's Bureau 1912, p. 2); however, while their publications were affordable and widely distributed (Ladd-Taylor 1986), illustrations showed white, middle-class families exclusively through at least the 1938 edition. Advice books and pamphlets printed by the private sector followed the same pattern. Early publications had no illustrations (U.S. Department of Labor, Children's Bureau 1914; Holt 1894). By the 1920s, drawings were often included, and by the mid-20th century, photographs

appeared in these publications, though by the 1980s, line drawings again predominated in government publications.

Little research exists on the racial and socioeconomic status of baby book consumers. Anderson (1936) found, based on a survey of 3000 American families, that 56.1% of 173 Black parents reported reading at least one book on child rearing in the previous year, in contrast to 49.4% of white parents. Within both groups, parents of higher socioeconomic status read more books than did parents of lower socioeconomic status. Readership of parenting pamphlets was nearly identical across the two groups (65.9% for Black parents and 64.8% for white parents), again with slightly higher readership among parents of higher socioeconomic status in both groups (p. 287). In addition, 78.1% of Black parents and 88.2% of white parents reported reading at least one article on child rearing in a newspaper or magazine (p. 288). Anderson's findings, though based on a small sample of Black parents, documented nonwhite readership of parenting advice publications, despite the fact that these parents were more likely to have purchased the books they read due to less access to public libraries, a source of reading material included in the survey (p. 287).

Sociologists Robert and Helen Merrell Lynd, in their 1929 landmark study of white residents (95%) of a small Midwestern city, *Middletown*, observed growing numbers of new mothers in both working- and middle-class families looking for parenting advice. They noted, "The attitude that child rearing is something not to be taken for granted but to be studied appears in parents of both groups. One cannot talk with Middletown mothers without being continually impressed by the eagerness of many to lay hold of every available resource for help in training their children" (Lynd and Lynd 1929, p. 149). The Lynds enumerated multiple printed sources, some cited in this paper, and noted, "Parents could not help wondering about the efficacy of traditional child–rearing strategies in a modern era," (p. 133) as they viewed their own parents' practices as inadequate for the new generation of children. Ladd-Taylor (1986) also documented readership across social classes and reported on mothers' letters to the Children's Bureau requesting advice publications, many from women in poverty.

Figures 30–32 show early photographs and drawings in publications from the 1920s and 1930s.
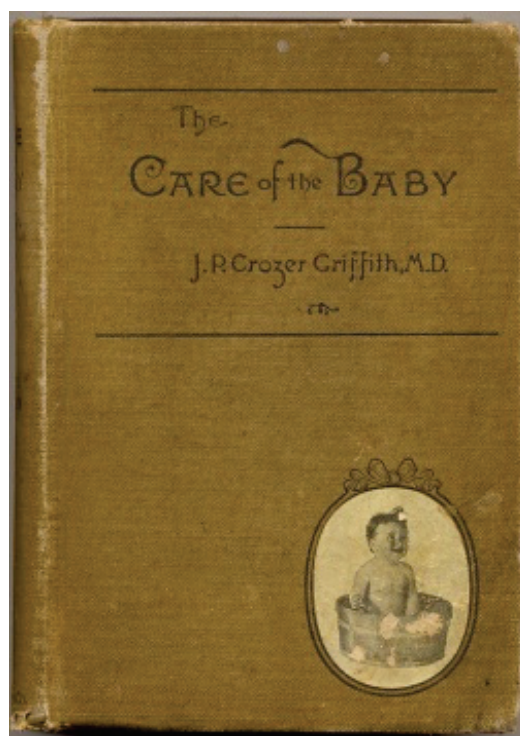
Figure 30. Outside Cover of Griffith's 1921 *The Care of the Baby*.

The front cover of the 1926 edition of *Infant Care* shown in Figure 31 (U.S. Department of Labor) shows a white baby of remarkably similar appearance to the one in Figure 30.
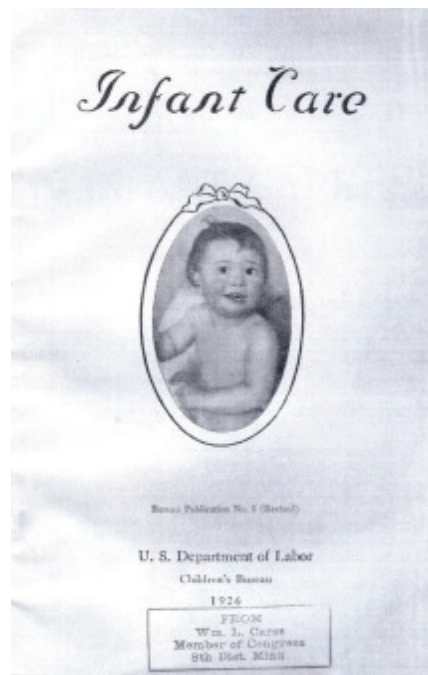
Figure 31. Outside Cover of 1926 edition of *Infant Care*.

The cover of the 1935 edition of *Infant Care* (U.S. Department of Labor) shown in Figure 32 used a drawing, again a white baby, now with mother.
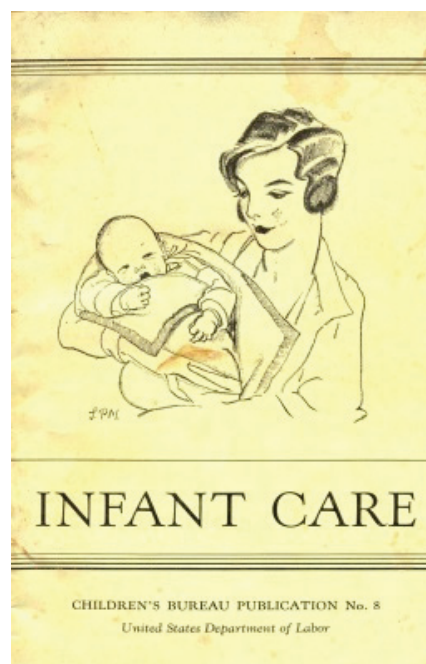
Figure 32. Front Cover of 1935 edition of *Infant Care*.

The 1935 edition of *Infant Care* also included recommendations to families for choosing a home, recommending a well-ventilated house with a sunny yard and healthy surroundings (see Figure 33) without reference to economic or racial barriers to such housing.
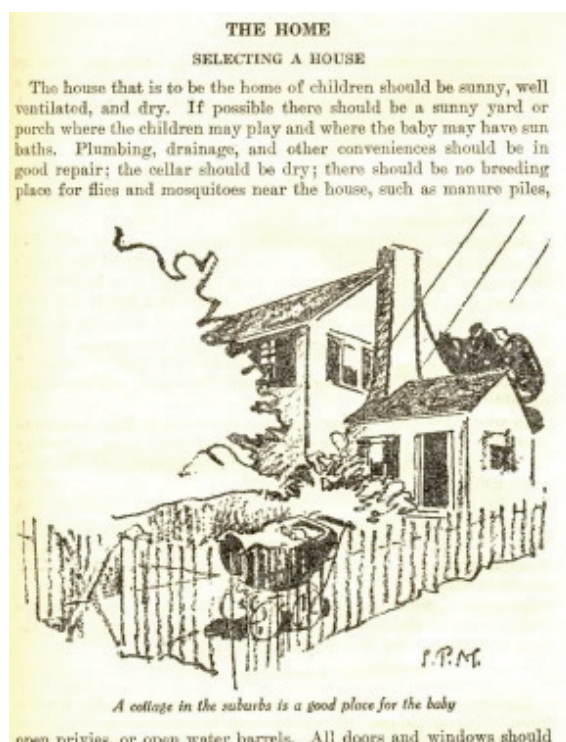
Figure 33. Advice on Choosing a Home.

The 1951 edition of *Infant Care* included some photos of nonwhite parents and babies, as shown in Figures 34 and 35. These photos appeared without any race-specific captioning and were the first use of such photos or illustrations in publications reviewed for this paper. (At this time, according to the U.S. Census Bureau (1951), 89.7% of the population was white, 9.9% was listed as "Negro," and less than 1% were listed as "Other.") Figure 32 also represents a trend toward picturing more fathers in baby care publications.

Fathers can be just as patient as mothers about early attempts at eating solid food
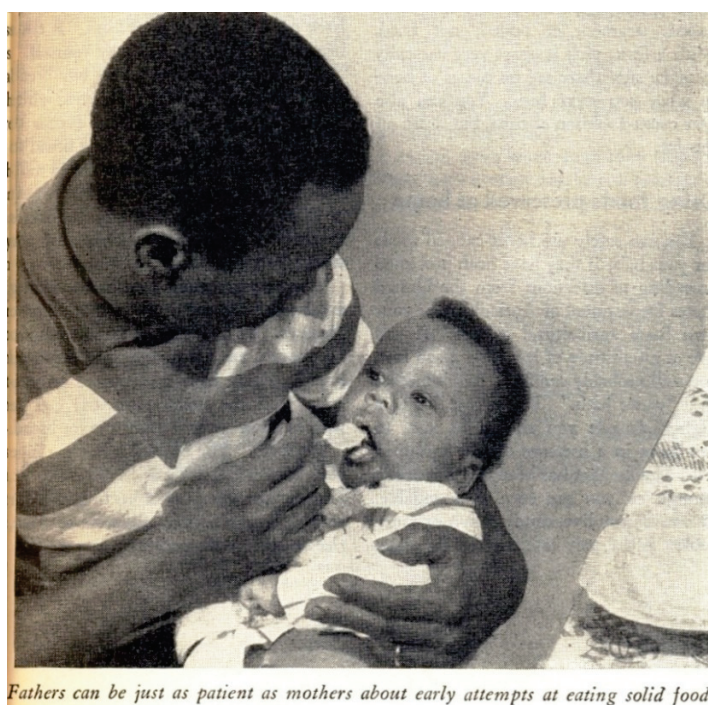
Figure 34. Photo of Black Father Feeding Baby.
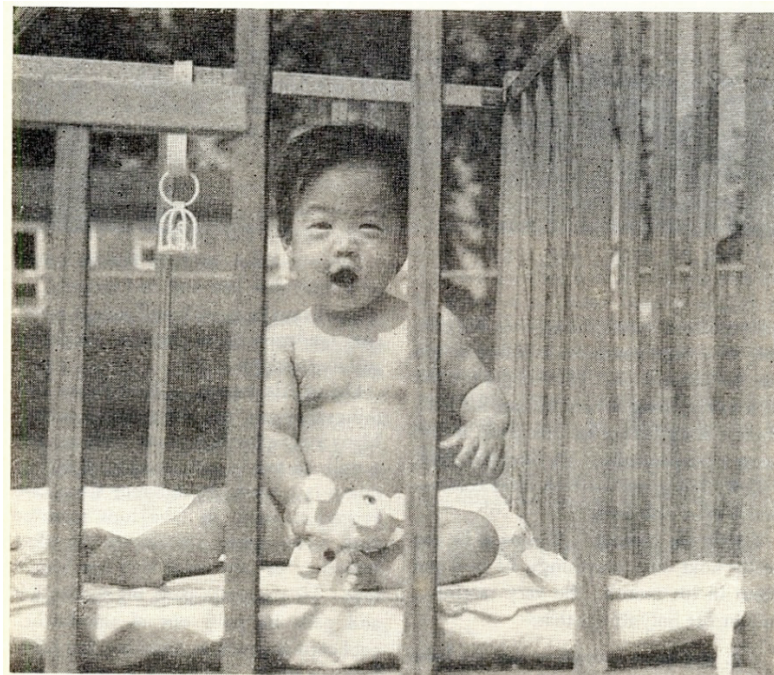
A play pen with a toy or two, sunshine, fresh air, and baby make a fine combination

Figure 35. Photo of Asian-American Baby in Play Pen.

The 1962 Children's Bureau publication, *Your Baby's First Year*, a "short picture leaflet . . . designed for quick reading," used cartoon-style line drawings to depict infants and parents. The 1989 final edition of *Infant Care* used sketches, clearly multiracial but less distinct than photographs, as shown in Figures 36 and 37. Figure 36 accompanied recommendations for allowing the baby time on the floor to roll, kick, and begin to crawl.

Figure 36. Time Out of Crib and Infant Seat.

Figure 37. A Front Pack was Recommended as a Handy Alternative to a Stroller.

Lack of racial representation prior to 1951 occurred despite apparent diversity in readership. Other gaps existed between the lives of many readers and the suburban and middle-class settings overwhelmingly pictured in parenting literature. These publications rarely mentioned external forces that affected families' lives, instead implying that solutions to problems and challenges were to be found in behavior change by parents (Atkinson 2017).

12. Conclusions

This look through the window of baby care books at parenting advice and practices of the past yielded interesting, puzzling, and even head-shaking ideas and illustrations. It was, indeed, an "entrancing look at "the folklore of child care" (Leach 1977, p. 26). However, along with fascinating pictures and descriptions of quaint parenting practices is another story, of the increased revering of all things scientific, and of the rise of experts, who stepped in with advice when grandma could not.

The publications highlighted in this paper met American parents' perceived need for expert advice in an era of increasing specialization and scientific study. Much of that advice changed over the years; in fact, there were many changes over a relatively short time period. In some cases, this reflected new scientific knowledge. For example, as scientists and health professionals learned about the dangers of lead, lead nipple shields fell out of favor with experts. Likewise, advice shaped by serious concern about infant mortality due to contagious disease or contaminated milk changed when immunizations and pasteurization became widely available (U.S. Department of Health, Education and Welfare, Office of Child Development 1977, p. 29). New research about the danger of overexposure to sun also led to changes in recommendations.

However, much of the experts' changing advice was not based on new scientific knowledge. Despite the Archimedean tone of the advice, no underlying basis in empirical science supported many of these recommendations. Infant anatomy and physiology and the timelines of child growth and development did not change over the short span of years covered in this paper; however, experts' advice on infant care and feeding, presented to parents as scientific and universal, changed considerably over that same period. That advice was informed as much by the experts' opinion of what American families should look like as by scientific findings (Atkinson 2017).

In less than a century, infant feeding recommendations transformed from rigidly scheduled feedings, whether breast or bottle, to "demand" feedings based on the baby's hunger. Mothers were advised to introduce solid foods at increasingly earlier ages; over a 60-year time span, the recommended age for starting solid foods decreased from 12 months to 1 month by the mid-20th century, only to be reversed somewhat in recent years. Over

the same period, the recommended age for initiating toilet training changed even more dramatically, though in the opposite direction, from 1 month to 2 or even 3 years of age. Expert recommendations for babies' sleep habits changed from scheduled naps and nighttime sleep that might require a period of crying prior to sleep, to a more flexible "baby led" schedule. As experts came to value play and stimulation over maximizing the amount of baby's sleep, these changing sleep recommendations were accompanied by corresponding recommended changes in daytime practices. At the same time, the dominant characterization of the baby (along with a pronoun change from "it' to "he"; O'Conner and Kellerman 2009; Tieken-Boon van Ostade 2000) changed from a manipulative creature to a developing person with legitimate needs and preferences (Atkinson 2017). Experts' recommendations, in fact, reflected changing patterns of thought in middle-class society rather than an empirical body of knowledge that stood over time (Clark 1951; McKenna 2000), belying the absolutism of the experts' advice.

13. My Story

I was a new mother in the 1980s, at home with a confounding, challenging small baby, wondering why my extensive child development background and the support of family and friends were not enough to make me feel confident and encouraged. I turned, as many parents do, to books written to advise and guide parents, primarily mothers, through those challenging early weeks and months filled with sleep deprivation, confusion, and angst. I found some useful information and reassurance, but also many doubtful ideas and much advice that raised more questions than it answered.

I wondered whether the parenting practices recommended so unequivocally by the experts of the 1980s were the universal truths they purported to be. Did they hold up historically and cross culturally? In the little time I could carve out of my day (actually late at night), I began to search and read. I found that over the years, a wide range of often-contradictory practices had been recommended to parents with just as much certainty. I began to collect old "baby books"—pamphlets distributed by birthing hospitals, government publications, and old copies of Dr. Spock's books. Some years later, I researched the stories behind the items in my collection and those in other advice books for parents. Confirming my earlier, sleep-deprived suspicion, I found that the experts were influenced not only by professional knowledge of the needs of the baby and family, but also by the social and cultural environment in which they lived and wrote.

14. Relevance for Parenting in the 21st Century

Now, in the 21st century, the books and pamphlets cited in this paper, with their captivating illustrations, may seem merely an interesting curiosity. We may be amused, or horrified, or feel satisfaction that we know better now what promotes healthy infant growth and development than did those writers. Indeed, the parental advice-giving profession in the years studied was male dominated, classist, racist, and inconsistent, however we might allow for the fact that the content and style of the books reflected the times in which those people lived and wrote.

At its best, parental advice literature serves an important function in bridging the gap between those who study children and parents who might benefit from information and insights from the field of child development. "What's the use of obtaining fascinating information about bed-wetting if you don't pass it on to the people who wash the sheets?" asked baby book author Penelope Leach (1977).

Of course, many things have changed since the period studied in this paper. The role of women has undergone dramatic change, the rate of maternal employment has increased, and child-rearing literature has also changed. Beginning in the 1970s, more baby books were written by women and nonphysicians. British psychologist Penelope Leach's *Your Baby and Child: From Birth to Age Five*, published in 1977, sold over two million copies. The best-selling *What to Expect . . .* series of books on pregnancy and early child care (Murkoff et al. 2014) are authored by a female medical writer.

Sources of parenting advice are many. Parents can avail themselves of websites, some hosted by popular baby book authors, and can search the internet for answers to questions that arise. Parents can obtain and share information on social networking sites, in a trend toward information sharing rather than a one-way flow from expert to mother. This abundance of sources allows for specialization—information for parents of children with special needs and parents in special situations.

However, baby care books continue to have a role. "The classics still do well," commented a local bookstore clerk, when I asked about preferences of today's parents. A 10th edition of *Dr. Spock's Baby and Child Care* (Spock and Needlman 2018), advertised as "timeless yet up-to-date," with "the latest information on child development from birth through adolescence—including cutting-edge research on topics as crucial as immunizations, screen-time, childhood obesity, environmental health, and more" (Spock and Rothenberg 2018) shares the shelves with newer books. Among these are books from a popular series first published in 1992 by William and Martha Sears, medical professionals and parents of eight children, who describe their *The Baby Book* (Sears and Sears 2013) as "the 'baby bible' of the post Dr. Spock generations." The Sears books support "attachment parenting" practices such as extended breastfeeding and co-sleeping, both highly disapproved by the experts cited in this paper. Specialized books advise parents of children with special needs, such as autism. There are books about raising an only child, being a single parent, gay or lesbian parent, older parent, or custodial grandparent, raising an adopted child, raising a boy, raising a girl, and raising children in the digital age, as well as books targeted to fathers.

Black parents are finally represented on the baby book shelves as well. *The Black Parenting Book: Caring for Our Children in the First Five Years* (Beal et al. 1998) was published in 1999. "I am glad that someone created a book for black parents with pictures of African-American people nursing and caring for their children," commented a reader reviewer (The Black Parenting Book 1998) who clearly would have viewed the parenting literature of the early 20th century with less enthusiasm or identification. Parenting books are also available online and in digital format for reading on a variety of handheld devices, blurring the line between books and online content.

The lesson I learned as a young mother reading old baby books was that parenting advice, however decisively prescribed, deserved scrutiny rather than unqualified acceptance. That same lesson can be applied to the consumption of current advice, printed or online, written or illustrated, professionally sourced or peer-shared. "Trust yourself. You know more than you think" wrote Dr. Spock (1946, p. 3), despite his abundance of decisive advice.

In the end, published recommendations, along with well-meaning advice from older generations and from friends and acquaintances, all resonate when parents make child-rearing decisions. Gaining a historical perspective, such as that presented in this paper, decreases the certainty that printed materials exude, as parents of young children continue to make the best decisions they can with imperfect input and knowledge.

References

Anderson, John E. 1936. *The Young Child in the Home: A Survey of Three Thousand American Families*. Report from the Committee on the Infant and Preschool Child, White House Conference on Child Health and Protection. New York: D. Appleton-Century Company. Available online: https://babel.hathitrust.org/cgi/pt?id=uc1.b4238191&view=1up&seq=278 (accessed on 28 November 2021).

Atkinson, V. Sue. 2017. Shifting sands: Professional advice to mothers in the first half of the twentieth century. *Journal of Family History* 42: 128–46. [CrossRef]

Beal, Anne C, Linda Villarosa, and Allison Abner. 1998. *The Black Parenting Book: Caring for Our Children in the First Five Years*. Collingdale: Diane Publishing Company.

Beery, Ray C. 1917. *Practical Child Training*. Pleasant Hill: The Parents Association.

Bolt, Richard A. 1924. *Baby's Health*. New York: Funk & Wagnall's Company.

Bronfenbrenner, Urie. 1961. The changing American child—A speculative analysis. *Journal of Social Issues* 17: 6–18. [CrossRef]

Brosco, Jeffrey P. 1999. The early history of the infant mortality rate in America: A reflection upon the past and a prophecy of the future. *Pediatrics* 103: 478–85. [CrossRef] [PubMed]

Bundesen, Herman N. 1927. *The Baby Book: A Complete Health Guide in Three Parts*. Chicago: Women's World Magazine Co.

Caring for Baby: Suggestions from Uncle Sam. 1915. *Reading Eagle*, January 10.

Chavasse, Pye Henry. 1878. *Advice to a Mother on the Management of Her Children and on the Treatment on the Moment of Some of Their More Pressing Illnesses and Accidents*, 13th ed. London: Churchill. Available online: https://catalog.hathitrust.org/Record/007678870/Cite (accessed on 20 December 2021).

Clark, Vincent E. 1951. Trends in infant care ideas. *Child Development* 22: 199–209. [CrossRef]

Deavers, Kimberly, and Laura Kavanagh. 2010. *Caring for Infants then and Now: 1935 to the Present*. Health Resources and Services Administration, Maternal and Child Health Bureau. Rockville: U.S. Department of Health and Human Services. Available online: https://www.hrsa.gov/sites/default/files/ourstories/mchb75th/mchbcaringinfants.pdf (accessed on 30 October 2021).

Duffus, Robert Luther, and L. Emmett Holt, Jr. 1940. *L. Emmett Holt: Pioneer of a Children's Century*. New York: D. Appleton-Century Co.

Ehrenreich, Barbara, and Deirdre English. 2005. *For Her Own Good: Two Centuries of the Experts' Advice to Women*. New York: Anchor Books.

Fischer, Louis. 1913. *The Health-Care of the Baby: A Handbook for Mothers and Nurses*, 5th ed. New York: Funk and Wagnalls Company.

Fischer, Louis. 1920. *The Health-Care of the Baby: A Handbook for Mothers and Nurses*, 10th ed. New York: Funk and Wagnalls Company.

Frant, Samuel, and Harold Abramson. 1937. Epidemic diarrhea of the newborn: II. Control and prevention of outbreaks in hospital nurseries. *Journal of Pediatrics* 11: 772–81. [CrossRef]

Gesell, Arnold A., and Frances L. Ilg. 1943. *Infant and Child in the Culture of Today*. New York: Harper & Brothers.

Gordon, Michael. 1968. Infant care revisited. *Journal of Marriage and the Family* 30: 578–83. [CrossRef]

Grant, Julia. 1994. Caught between common sense and science: The Cornell Child Study Clubs, 1925–45. *History of Education Quarterly* 34: 433–52. [CrossRef]

Grant, Julia. 1998. *Raising Baby by the Book: The Education of American Mothers*. New Haven: Yale University Press.

Griffith, J. P. Crozer. 1921. *The Care of the Baby*. Philadelphia: W. B. Saunders Company.

Hardyment, Christina. 1983. *Dream Babies: Three Centuries of Good Advice on Child Care*. New York: Harper & Row.

Holt, L. Emmett. 1894. *The Care and Feeding of Children*. New York: D. Appleton and Company.

Hymes, James. L. 1978. *Early Childhood Education Living History Interviews*. Carmel: Hacienda Press.

Ladd-Taylor, Molly. 1986. *Raising a Baby the Government Way: Mothers' Letters to the Children's Bureau 1915–1932*. New Brunswick: Rutgers University Press.

Leach, Penelope. 1977. *Your Baby and Child: From Birth to Age Five*. New York: Alfred A. Knopf.

Lynd, Robert S., and Helen Merrell Lynd. 1929. *Middletown: A Study in Contemporary American Culture*. New York: Harcourt Brace.

McKenna, James. 2000. Cultural influences on infant and childhood sleep biology and the science that studies it: Toward a more inclusive paradigm. In *Sleep and Breathing in Children and Pediatrics*. Edited by Gerald M. Laughlin, Carol Marcos and John M. Carroll. New York: Marcel-Dekker, pp. 99–130.

McKenna, James J., and Thomas McDade. 2005. Why babies should never sleep alone: A review of the co-sleeping controversy. *Paediatric Respiratory Reviews* 6: 134–52. [CrossRef] [PubMed]

McKenna, James J., Helen L. Ball, and Lee T. Gettler. 2007. Mother-infant co-sleeping, breastfeeding and sudden infant death syndrome (SIDS): What biological anthropology has discovered about normal infant sleep and pediatric sleep medicine. *American Journal of Physical Anthropology* 134: 133–61. [CrossRef]

Mechling, Jay. 1975. Advice to historians on advice to mothers. *Journal of Social History* 9: 44–63. [CrossRef]

Midsummer Mortality. 1899. Relation between "Summer Complaint" and the Effect of hot Weather upon Foods and Drinks. *New York Times*, August 27, p. 10. Available online: https://timesmachine.nytimes.com/timesmachine/1899/08/27/102413307.html?pageNumber=10 (accessed on 30 October 2021).

Murkoff, Heidi, Arlene E. Eisenberg, and Sandee E. Hathaway. 2014. *What to Expect Your Baby's First Year*, 3rd ed. New York: Workman Publishing.

National Archives. 2016. *Records of the Children's Bureau*. Available online: http://www.archives.gov/research/guide-fed-records/groups/102.html (accessed on 30 October 2021).

Newbold, Chris, Oliver Boyd-Barrett, and Hilde Van Den Bulck. 2002. *The Media Book*. London: Arnold.

O'Conner, Patricia T., and Stewart Kellerman. 2009. All-purpose pronoun. *New York Times Magazine*, July 21. Available online: http://www.nytimes.com/2009/07/26/magazine/26FOB-onlanguage-t.html?_r=0 (accessed on 20 December 2021).

Read, Emma. 1923. Portable Baby Cage. U.S. Patent 1,448,235, U.S. Patent and Trademark Office, March 13. Available online: https://commons.wikimedia.org/wiki/File:US1448235_Portable_Baby_Cage_Fig_1.png (accessed on 20 December 2021).

Richardson, Frank Howard. 1925. *Simplifying Motherhood*. New York: G. P. Putnam's Sons.

Riffe, Daniel, Stephen Lacy, Brenda Watson, and Frederick G. Fico. 2019. *Analyzing Media Messages: Using Quantitative Content Analysis in Research*, 4th ed. London: Routledge.

Ryerson, Alice Judson. 1961. Medical advice on childrearing, 1550–1900. *Harvard Educational Review* 31: 302–23. [CrossRef]

Sears, William, and Martha Sears. 2013. *The Baby Book: Everything You Need to Know About Your Baby from Birth to Age Two*. Boston: Little, Brown and Company.

Spock, Benjamin. 1946. *Baby and Child Care*. New York: Pocket Books.

Spock, Benjamin, and Michael B. Rothenberg. 2018. Dr. Spock's Baby and Child Care. Available online: https://www.amazon.com/Spocks-Baby-Child-Care-10th/dp/1501175335 (accessed on 3 December 2021).

Spock, Benjamin, and Robert Needlman. 2018. *Dr. Spock's Baby and Child Care*, 10th ed. New York: Gallery Books.

Stake, Robert. 1995. *The Art of Case Study Research*. New York: Sage Publications.

The Black Parenting Book: Caring for Our Children in the First Five Years. 1998. Available online: https://www.amazon.com/Black-Parenting-Book-Caring-Children/dp/0756794412 (accessed on 24 December 2021).

Tieken-Boon van Ostade, Ingrid. 2000. Female grammarians of the eighteenth century. *Historical Sociolinguistics and Sociohistorical Linguistics* 1. Available online: http://www.let.leidenuniv.nl/hsl_shl/femgram.htm (accessed on 30 October 2021).

Trimble, Edward Maurice. 1913. Convertible Crib and Coop. U.S. Patent 1,079,675, U.S. Patent and Trademark Office, November 25. Available online: https://pdfpiw.uspto.gov/.piw?PageNum=0&docid=01079675&IDKey=5E56884D80F3%0D%0A&HomeUrl=%2F%2Fpatft.uspto.gov%2Fnetahtml%2FPTO%2Fpatimg.htm (accessed on 20 December 2021).

U.S. Census Bureau. 1951. *Statistical Abstract of the United States*. Available online: https://www2.census.gov/prod2/statcomp/documents/1951-02.pdf (accessed on 30 October 2021).

U.S. Census Bureau. 2012. *The 2012 Statistical Abstract of the United States: 2012*. Available online: https://www.census.gov/library/publications/2011/compendia/statab/131ed.html; (accessed on 30 October 2021).

U.S. Department of Commerce and Labor, Children's Bureau. 1912. *The Children's Bureau: Establishment of the Bureau*; U.S. Government Printing Office. Library of Congress. Available online: https://www.loc.gov/item/12029019 (accessed on 30 October 2021).

U.S. Department of Health, Education and Welfare, Office of Child Development. 1977. *200 Years of Children*. DHEW Publication No. (OHD) 77-30103. Washington, DC: U.S. Government Printing Office.

U.S. Department of Health, Education, and Welfare, Children's Bureau. 1951. *Infant Care*. Bureau Publication No. 8. Washington, DC: U.S. Government Printing Office.

U.S. Department of Health, Education, and Welfare, Children's Bureau. 1962. *Your Baby's First Year*. Bureau Publication No. 40. Available online: https://www.mchlibrary.org/history/chbu/20155.pdf (accessed on 30 October 2021).

U.S. Department of Health, Education, and Welfare, Children's Bureau. 1965. *The Story of Infant Care*. Available online: https://www.mchlibrary.org/history/chbu/20102.PDF (accessed on 30 October 2021).

U.S. Department of Health and Human Services. 1989. *Infant Care*. Bureau Publication No. 8. Washington, DC: U.S. Government Printing Office.

U.S. Department of Labor, Children's Bureau. 1914. *Infant Care*. Bureau Publication No. 8. Washington, DC: U.S. Government Printing Office. Available online: https://www.mchlibrary.org/history/chbu/3121-1914.PDF (accessed on 30 October 2021).

U.S. Department of Labor, Children's Bureau. 1926. *Infant Care*. Bureau Publication No. 8. Washington, DC: U.S. Government Printing Office.

U.S. Department of Labor, Children's Bureau. 1931. *Sunlight for Babies*. Bureau Publication No. 5. Washington, DC: U.S. Government Printing Office. Available online: https://www.mchlibrary.org/history/chbu/29412.PDF (accessed on 30 October 2021).

U.S. Department of Labor, Children's Bureau. 1935. *Infant Care*. Bureau Publication No. 8. Washington, DC: U.S. Government Printing Office. Available online: https://www.mchlibrary.org/history/chbu/3121-1935.PDF (accessed on 30 October 2021).

Watson, John B. 1928. *Psychological Care of Infant and Child*. New York: WW Norton & Co.

Wolf, Jacqueline H. 1999. "Mercenary hirelings" or "A great blessing"?: Doctors' and mothers' conflicted perceptions of wet nurses and the ramifications for infant feeding in Chicago, 1871–1961. *Journal of Social History* 33: 97–120. [CrossRef]

Wolf, Jacqueline H. 2003. Low breastfeeding rates and public health in the United States. *American Journal of Public Health* 93: 2000–10. [CrossRef] [PubMed]

Review

The Cult of the Child: A Critical Examination of Its Consequences on Parents, Teachers and Children

Serge Dupont [1,2,*] , Moïra Mikolajczak [1] and Isabelle Roskam [1]

[1] Department of Psychology, 10 Place Cardinal Mercier, Université Catholique de Louvain, 1348 Louvain-la-Neuve, Belgium; moira.mikolajczak@uclouvain.be (M.M.); isabelle.roskam@uclouvain.be (I.R.)

[2] Deparment of Pedagogy, Haute École Galilée, Rue Royale 336, 1030 Brussels, Belgium

[*] Correspondence: s.dupont@uclouvain.be

Abstract: The concept of the "cult of the child" highlights a radical change in child representation. Having been neglected and even disrespected for centuries, children are now valued, and their interests are placed above all others. This change in views of children, reflected in changes in laws, institutions and practices, has also spread to two pillars of our democratic societies, the family and the school, with a number of consequences for parents, teachers and children. The purpose of this article is to (1) describe the changes in thinking that have led to the cult of the child, (2) examine their consequences for children and parents, (3) examine their consequences for students and teachers, and (4) reflect on how to preserve the benefits of these changes while limiting the negative consequences.

Keywords: burnout; authoritative; permissiveness; needs; protection

1. Introduction

Intergenerational studies have presented a worrying picture of the new generation (i.e., iGen/Gen Z, born 1995–2012). Since 2010, researchers have observed a decline in mental health indicators in the United States, i.e., decreased happiness and increased loneliness, anxiety and depressive symptoms (Duffy et al. 2019; Twenge et al. 2018), a decline in vocabulary skills (see (Andreu and Steinmetz 2016) for France and (Twenge et al. 2019) for the United States) and even mixed attitudes similar to those of previous generations toward environmental protection in both Europe and the United States (e.g., Gray et al. 2019; VanHeuvelen and Summers 2019).

One explanation for this trend can be found in the intensive use of new technologies by IGen, born precisely at the time of the rise of social media. Many studies have shown that excessive use of smartphones and social networks has a negative influence on these mental health and cognitive indicators (for a review, see Twenge 2020). This effect is direct, but also indirect, via a disruption of in-person social interactions, interference with sleep time and quality, exposure to a toxic online environment and reduction in time spent in reading books (Twenge 2020; Twenge et al. 2019). However, other recent cultural changes, that may have been neglected so far, can also explain these generational changes, particularly in the educational sphere.

In the current article, we propose that this worrying situation of the new generation could be in part the consequence of what we call, inspired by historian Boas (1966), the "cult of the child", a recent phenomenon that places the interests of children above all others. We suggest that this cult leads to three attitudes towards children: (1) a decrease in the constraints imposed on them; (2) a concern to meet their every need; and (3) an attempt to prevent them from any harm or danger. We do not mean that placing interest in child needs is negative per se; we instead think that this excessive concern, which is becoming more and more popular, may affect mental health, cognitive skills and even the physical health of young people today.

The cult of the child is the consequence of a shift in the representation of children whose roots lie mainly in the 18th century and that has been accelerated in the last two decades through a series of laws and agreements aimed at protecting children's interests. This has changed not only parental practices but also those of teachers in schools, with potential consequences for children and adults, and for society.

In this special issue article, we aim to understand this historical development, to show how it has changed the relations between children and adults at the beginning of the 21st century and to reflect on how to preserve the advantages of the change in the way we think about children while avoiding its current pitfalls. We begin by describing the shift in representations of childhood from a historical perspective. Then, based on research in developmental and educational psychology, we examine the possible consequences of this cult for children and parents and for students and teachers. In the discussion, we reflect on ways to avoid current pitfalls and take a more intercultural perspective and end by underlining the limits of our approach. This narrative review is based on a selection of studies relevant to our theme of interest. No specific criteria for inclusion and exclusion have been pre-defined (Collins and Fauser 2004). Our objective is to stimulate scientific debate and open up new research perspectives.

2. Historical Background

The Ancient Greeks mainly regarded children as physically weak, morally incompetent and mentally incapable (Golden 2015). Aristotle, for example, regarded them as brutes who only pursued their own pleasure (Boas 1966). As a consequence, the main objective of the Greek education was to force the child to become "other". The nature of this other depended on the ideal help up by each city-state: the obedient soldier in the case of Sparta or the enlightened citizen in the case of Athens. Educational institutions, which were created at this time, were all centred around these objectives (Marrou 1982). In other words, there was no concern for children's well-being at that time—something that is underlined by the prevalence of violence as an everyday reality in education (Marrou 1982).

Catholicism historically viewed children in the same way as the Greeks. The infant Jesus was considered an exceptional being, so his veneration did not extend to other children. According to Boas (1966), there was no idealization of the child until the 18th century. The philosopher Pascal likened children to animals and the humanist Erasmus defined them as "half-human" creatures who must be corrected through intense discipline so as to prevent their bestial nature from appearing (Kennedy 2006).

The real and profound change in mentality came with the publication of Rousseau's book *Emile, or on education* (Cunnigham 2020; Koops 2012). Rousseau ([1762] 2010) depicted adults as spoilt by the artifices of civilization and close to death, whereas children were presented as lively, animated and enjoying the fullness of life. According to Rousseau, "Everything is good as it comes from the hands of the Maker of the world, but degenerates once it gets into the hands of man (p. 7)", and education should thus preserve this set of qualities rather than force the child to become other. It was no longer the mature and cultured man who was the model, but the innocent, pure, creative and curious child. To this end, Rousseau ([1762] 2010) proposed major pedagogical innovations based on freedom and the need to start from the child's interests and needs. Traditional education based on harsh discipline was rejected by Rousseau. Instead, he encouraged mothers to care for and be tender with their children (Koops 2012).

The Romantics in the 19th century consolidated Rousseau's vision of childhood (Boas 1966), as can be seen in many poems and tales of that period. This shift in the representation of children can also be seen from the paintings of this period (Koops 2003).

More recently, experts in education have recommended a new, gentler and more respectful way of raising children. Previously, parents were told to put their children to bed and feed them at regular, imposed times and to raise them "the hard way" to face the world. The works of the paediatrician Spock in the United States (Spock 1946) and of neo-Freudians such as Dolto in France (Dolto 1985) and Brown in the US (see Boas 1966)

take the opposite view. They invite parents to consider their children as individuals to whom they should listen and with specific needs that should be satisfied. Since Spitz's work on hospitalism (Spitz 1947), experts have increasingly insisted on the importance of the child's emotional needs and the need to decode and understand these needs.

In the post-Romantic period, pedagogues such as Pestalozzi, Fröbel or Key put forward severe criticisms of traditional teaching (Boas 1966), which they described as annihilating the child's potential: "the ability to act by oneself, the gift of observation, all qualities that children bring with them to school, have, as a rule, disappeared at the end of the school period" (Key 1909, p. 88). If children have lost their intrinsic qualities by the time they have finished school, this is because they have been forced to eat the poisoned fruit of the tree of knowledge (Boas 1966). Dewey ([1916] 2007) shared the same view, describing the traditional teacher as a "dictator" who mutilated the child's abilities. This critique was accompanied by concrete proposals: from now on, school must take into consideration the needs of each child by proposing activities—such as free play or experimentation—that would allow them to bloom.

The image of the child has thus been transformed. These young creatures with great intrinsic qualities must now be protected, listened to and cherished. This new status took concrete form during the 20th century through a series of laws and agreements aimed at protecting children's interests. In the next two sections, on parenting and school, we examine how the cult of the child emerged, how it became enshrined in law, and what its consequences are for practices, for children and for the adults who educate them. We have chosen to examine parenting and school because they are two pillars that shape the adults of tomorrow.

3. The Cult of the Child in Parenting

3.1. The Advent of Child-Centered Parenting

Until the 19th century, the family environment was considered as a place of intimacy with the paterfamilias (who held power over his wife and children) at its head. The state did not intervene.

At the end of the 19th century, children become of greater interest to the state. Poverty, crime and vice were widespread in industrialized cities, and the state began to see children as the future of the nation (Bullard 2015). It became necessary to protect them, not for their own sake, but to change and protect society as a whole. The idea began to gain ground that parents were responsible for the future of their children and that the state could intervene (by force) in families who were unable to ensure that their children survived and were brought up properly (Michel and Varsa 2014).

At the beginning of the 20th century, the First World War led to a fall in the birth rate, leading to a concerted drive to reduce infant mortality. Mothers were perceived as key to children's survival and were therefore encouraged to adopt new hygiene practices and to breastfeed their infants. Because children not only needed to survive but also represented the future of the nation, concrete measures were taken (King 2016), such as regulation of child labour (Somavia 2002), compulsory schooling (Miller 1989), child protection laws (Walsh 2020), the creation of juvenile courts (Thompson and Morris 2016), or the implementation of youth assistance or family support services through which the state could intervene in families that were deemed defective in order to protect children (Walker 2012). At the international level also, crucial political changes occurred, with the recognition for the first time of specific rights of children and the responsibility of adults in upholding these (League of Nations 1924), the creation in 1946 of the United Nations International Children's Fund (UNICEF), the Universal Declaration of Human Rights in 1948 (United Nations 1948), the Declaration of the Rights of the Child (United Nations 1959), and ultimately the International Convention on the Rights of the Child (CRC) (Convention on the Rights of the Child 1989). Besides instituting the rights of children, the CRC outlines the duties of those responsible for them, particularly parents, and the importance of the

role of signatory states in supporting parents in their complex task, monitoring them, and intervening (by force if necessary) when parents are not acting in the child's "best interest".

At the beginning of the 21st century, the Committee for European Social Cohesion published a report aimed at identifying the implications of the CRC for parenting (Daly 2007). This report sought to define the notion of "good parenting" using the concept of "positive parenting". The experts who participated in this committee relied on the scientific knowledge at that time about child development to provide guidelines on the parenting practices to be favoured or proscribed (Daly 2007). They were mainly influenced by two particular fields of research. The first was attachment, where research emphasized the importance of emotional security for optimal social, cognitive, affective and physical development (e.g., van Ijzendoorn et al. 1995), the influence of the caregivers' sensitivity and mentalization competencies, and the lifelong consequences of attachment failure for the child's development and health (e.g., De Wolff and van Ijzendoorn 1997). The second field was that of parenting styles. In reference to Baumrind's seminal work on parenting (Baumrind 1971), the authoritative style (as opposed to authoritarian, indulgent and neglectful styles) was associated with better cognitive, academic, emotional and social development, as well as with greater well-being and health for children. Accordingly, the combination of warmth and democracy seemed to be the formula for optimal parenting.

In this context, laws aimed at regulating parenting started to be introduced. The most emblematic example is undoubtedly the prohibition of spanking, adopted in 37 countries in the last 40 years (Global Partnership to End Violence against Children 2021). Never before in history has parenting been so socially regulated. Parenting is no longer a matter of common sense: it requires reference to the rules enacted by the state and to the knowledge disseminated by experts. These experts hold the keys to positive parenting that respects the rights of children and their best interests and seek to optimize their development. All the conventions, reports, rules and laws described in this section testify to the cult of the child and are the direct product of the development in the representation of the child outlined in the historical background section.

3.2. Development of Parenting Practices

The institutionalization of childhood in international conventions and national laws has led to changing parental practices. This change has occurred in just two generations and has been driven by experts, including both scholars and practitioners, through (1) the production of scientific knowledge about parenting and its relations with child developmental outcomes (Bornstein 2019); (2) the transmission of this knowledge in the form of formulas, recommendations or even injunctions to parents to adopt optimal childrearing behaviours (transmitted through online information, websites, popular scientific books, campaigns, etc.) (Kay 2010); (3) the assessments of parenting practices and the quality of the parent-child relationship by experts working in specialized consultation centres, when the child's development is not considered optimal (Foran et al. 2020); and (4) the growing number of preventive or curative parenting programs, under the guidance of experts or even self-administered, aimed at training parents to adopt optimal practices with respect to their children (e.g., Webster-Stratton 2005). Clearly, parenting experts have become important figures in the educational landscape today (Lee et al. 2014).

It is difficult to objectively state the extent to which parenting practices have really evolved over the last few decades. However, in order to illustrate the cult of the child, i.e., how the changes that have occurred have led to both a decrease in constraints and an increasing concern to meet all children's needs and avoid any dangers, we have gathered a set of indicators from several sources.

3.2.1. Changes in Parenting Practices towards Decreased Constraints

Classifications of parents according to the most documented parenting styles (i.e., authoritative, authoritarian) show an increase in the combination of warmth and democracy, with more parents being classified as authoritative, and a decrease in parents' authority,

with fewer parents being classified as authoritarian. We searched the PsycInfo and PsycArticles databases with the keywords Baumrind*authoritarian*authoritative*cluster. We selected studies published in peer-reviewed journals after the seminal work of Baumrind (1971) and Maccoby and Martin (1983), in which a classification of parenting styles from Western samples was reported. This bibliographical research is not intended to be exhaustive and is not without limitations. It does, however, give an initial hint as to the development of parenting practices. As the frequencies in Table 1 suggest, the percentage of parents classified as authoritative is tending to increase. It averaged 58% (min. 53%–max. 68%) in the studies up to 2000 and 75% (min. 57%–max. 88%) in the studies published in the 21st century, an average increase of 23%. In addition, the percentage of parents classified as authoritarian seems to be decreasing over time. It averaged 42% (min. 32%–max. 47%) in studies up to 2000 and 33% (min. 12%–max. 45%) in studies published in the 21st century, an average decrease of 9%.

Table 1. Frequencies (%) of parents classified under the authoritative and authoritarian parenting styles from 1987 to 2020 [1].

	Authoritative	**Authoritarian**
(Dornbusch et al. 1987) [2]	53	47
(Lamborn et al. 1991)	68	32
(Power et al. 1992) [3]	53	47
(Shucksmith et al. 1995)	61	39
(Aunola et al. 2000)	55	45
(Metsäpelto and Pulkkinen 2003)	69	31
(Wolfradt et al. 2003)	67	33
(Lee et al. 2006)	57	43
(De Bourdeaudhuij et al. 2009) [4]	72/74/83/79	28/26/17/21
(Garcia-Espana et al. 2009)	86	14
(Howenstein et al. 2015)	88	12
(Kuppens and Ceulemans 2019)	81	19
(Parra et al. 2019) [5]	68/69	32/31
(Calders et al. 2020)	80	20

[1] Frequencies did not always add up to 100% because some authors use additional clusters that differ from one study to another (e.g., unclassified). For the purpose of comparison between studies, we have scaled the frequencies to 100%. [2] The authors report the classification of 50% of the sample as pure cases, but for comparison purposes, the frequencies have been recalculated to 100%. [3] The study was conducted in Japan and the United States; the frequencies reported are those for the United States. [4] The study was conducted in Spain, Portugal, the Netherlands and Belgium; four values are reported. [5] The study was conducted in Spain and Portugal; two values are reported. More than 50% of the data were missing, but for comparison purposes, the frequencies were recalculated to 100%.

Although the authoritative style is widely accepted by most scholars and experts as optimal (Daly 2007; OECD 2020), a certain shift towards an approach known as "exclusively positive parenting" (EPP) has been noted among parents and popularized in lay books in very recent years (e.g., Ducharme and Beaumont 2017). EPP is a parenting style almost exclusively based on warmth, support and autonomy of the child, avoiding any form of punishment (such as timeouts or intentional ignoring), discipline or even structure (considered as restrictive to the autonomy and exploration of the child). Although it contradicts the scientific evidence—i.e., authoritative style including firm discipline when needed (Larzelere et al. 2017), EPP is presented as the only possible alternative to maltreatment or downright violence towards children.

Though not without methodological limitations, studies of the intergenerational transmission of child-rearing practices also tend to confirm the development of parenting practices towards fewer disciplinary constraints. Although the correlations between successive generations are rather modest—suggesting that some transmission occurs but that there is also some discontinuity (e.g., Bailey et al. 2009)—intergenerational studies suggest greater continuity for practices such as warmth that have consistently been regarded as

desirable, than for those that have been regarded as more controversial in society, such as strict discipline (Roskam and Stievenart 2013).

3.2.2. Changes in Parenting Practices towards Meeting All Children's Needs

In order to meet their children's needs, parents are expected to be more involved in their parenting role, and in particular to spend more time with their children and be fully emotionally available to them. As early as the end of the 1990s, mothers who were interviewed about their parenting role already reported feeling increasingly under pressure to meet the cultural norms of highly involved parenting aimed at optimizing the child's development (Hays 1996). Hays (1996) proposed the notion of intensive parenting to designate the child-centred, expert-guided, emotionally absorbing, labour-intensive, and financially expensive approach to parenting that began to appear in the 1990s. Intensive parenting has been illustrated by many qualitative analyses of parents' experiences (e.g., Gomez Espino 2013) and confirmed by the increasing amount of time spent daily with children by their parents. In 11 Western countries, between 1965 and 2012, this time increased by 48% for mothers, from 54 min to 104 min on average per day, and by 73% for fathers, from 16 to 59 min (Sani and Treas 2016). This time spent with children has not only quantitatively augmented but is also increasingly used to optimize child development rather than for passive supervision (Craig 2006). While the intensification of parenting has often been considered more typical of mothers, fathers are increasingly involved too (Shirani et al. 2011).

3.2.3. Changes in Parenting Practices towards Avoiding Any Danger

In the 21st century, parents are well informed by experts of the dangers that threaten children. Therefore, to ensure their normal or even optimal development, parents are expected to avoid exposing their children to any known threat, e.g., smoking or drinking alcohol during pregnancy; not breastfeeding; providing food rich in salt, sugar or fat; using strict discipline, exposing children to technology (screens, 5G, cell phones, social media, etc.); or allowing them contact with people who may be a bad influence (Faircloth 2014). Parents who, despite knowing about these dangers, do not take all the necessary precautions to avoid them, are held morally responsible for any consequences. This includes not only about protecting children from immediate dangers present in the environment, but also predicting and preventing any circumstances that might interfere with the child's optimal development (Wolf 2011).

This risk aversion may lead to daily concerns, loss of self-confidence and increased stress in parents. These beliefs have been shown in patterns regarding changes in behaviours. For example, can they still let their children go to school on their own knowing that there is a risk that they will be kidnapped? Studies report that in 1969, 48% of American children walked or cycled to elementary school, whereas in 2009, only 13% did so (Twenge 2017). Moreover, 76% of parents nowadays report that they always know where and with whom their young adolescent is (against 62% in 1999; Twenge 2017). And geographical studies attest to the withdrawal of children from the streets of Western cities, with parents nowadays preferring to watch over them in person (Holt 2011).

Although risks that could potentially interfere with children's optimal development are indeed present in the environment, there is some disparity between the actual occurrence of certain phenomena and the concerns expressed about them (concerning breastfeeding, for example: see Wolf 2007). Thus, certain parental behaviours considered in the 20th century as normal practices or even good practices encouraging autonomy in children (e.g., letting them go to school on their own) are seen in the 21st century as benign neglect, i.e., neglect due to ignorance of the risk. As a corollary, parents considered in the 20th century as "good enough parents" are seen in the 21st century as "at-risk parents" who need to be advised or even trained by experts, and subject to state monitoring. The professionalization of parenthood is thus legitimized and "the task of raising children is turned into a skill" (Macvarish 2014, p. 99).

3.3. Consequences of the Cult of the Child for Children

The changes in institutions and practices described above were all made with a view to the best interest of the child. They have in fact had a number of positive effects, including the prohibition (moral or even legal) of all forms of violence against children, the reduction in the risk of unintentional injuries and falls in childhood, and the related mortality (Grossman 2000), more inclusive education with a greater tolerance for "non-normative" behaviour (e.g., homosexuality), and the increase of intimacy within families and in particular of parent-child quality time (Collishaw et al. 2012). However, and unfortunately, there have also been a number of negative consequences, which are becoming even clearer and more problematic as the cult of the child intensifies. In this section, we focus more specifically on the negative consequences of the above-mentioned changes, for both children and parents.

Although the beneficial effects of positive parenting on children have been widely documented (for a review, see OECD 2020), the intensification of positive parenting may have become counterproductive. While positive parenting aims at optimizing the development and well-being of the child, its intensification and excessive approaches to which it can sometimes lead, such as EPP or hyper- or over-parenting, have negative consequences for the child (Faircloth 2014). The system thus ends up working against those it claims to protect. The negative consequences have been empirically demonstrated in some recent studies that we selectively review below.

We will base our review on the consequences of "helicopter parenting", a typical form of parenting embedded in the cult of the child as characterized by the alleviation of disciplinary constraints and frustrations, the prioritization of meeting all the child's needs, and the focus on child protection. Helicopter parenting is by far the most studied of all the parenting styles that have emerged from the cult of the child. The term was coined in 1969 (Ginott 1969) and has become increasingly popular in the Unites States since 1990 (Cline and Fay 1990). It describes parents who are excessively child-oriented, over-involved, over-caring and over-protective. These parents disagree with the idea of their child being exposed to any risk and therefore behave in an intrusive and controlling way. Prevented from facing any problematic situation and therefore from finding solutions by themselves, overparented children have been called the 'cotton wool kids' (Bristow 2014).

Interestingly, and somewhat paradoxically, helicopter parenting has negative effects on the child's physical health: over-protective parents severely limit the child's possibilities of exploration, resulting in a reduction in motor activity (Janssen 2015). Helicopter parenting also has deleterious effects on the psychological well-being and mental health of children (Kouros et al. 2017). Children of helicopter parents are more anxious (Spokas and Heimberg 2008) and use more medication for depression and anxiety (LeMoyne and Buchanan 2011). They also report higher worries and psychological difficulties in emerging adulthood (Segrin et al. 2015).

Given its excessive focus on the child, it is not surprising that research has found that helicopter parenting is associated with narcissistic traits in children (Eberly-Lewis et al. 2018) and ego inflation (Yılmaz 2020). Moreover, by trying to anticipate and solve difficulties before they affect the child, helicopter parents prevent their children from becoming independent and making autonomous choices (Schiffrin et al. 2015). As a result, these over-parented children consider that they have the right to expect others to solve their difficulties and give them a lot of support of the kind that they received from their parents, creating a general sense of entitlement (Segrin et al. 2012). These children display a more external locus of control (Spokas and Heimberg 2008), procrastinate more (Hong et al. 2015), and show a lower level of school engagement (Padilla-Walker and Nelson 2012).

The finding that over-parented children show lower school engagement (Padilla-Walker and Nelson 2012) is somewhat paradoxical, because another facet of over-parenting is overstimulation. In order to optimize their child's development, parents provide numerous structured activities aimed at developing language quality, cognitive reasoning and so on. To achieve their goal, parents use stimulating materials at home, interact actively with the child's school experience and limit play and informal leisure time in favour of learning

time. While stimulation through participation in structured activities is important for child development, over-stimulation (i.e., excessive stimulation through too many structured activities) may have negative consequences by depleting children's energy, by not teaching children to organize their time by themselves and by exposing children to extremely demanding standards. Although the links with parental over-stimulation have not been formally demonstrated, it is likely that changes in parenting practices have contributed to the increase in perfectionism among young people in recent years. A meta-analysis gathering data from more than 40,000 college students from the United States, Canada and the United Kingdom between 1989 and 2016 has shown that young people perceive others as more demanding of them and are more demanding of themselves and of others (Curran and Hill 2019).

3.4. Consequences of the Cult of the Child for Parents

The increase in parental investment and pressure that has resulted from the cult of the child has most likely resulted in increased parenting stress and parental burnout. We describe this development only as a likelihood because, to the best of our knowledge, there is no cohort study on parental stress/burnout in lay parents. However, two indirect indicators suggest that parental stress and burnout may have increased over the past few decades. First, the notion of parental burnout, coined in 1983, has become increasingly popular with both the lay public and the scientific community, with a twentyfold increase in the number of publications using the term since the 2000s. Parental burnout (see Mikolajczak et al. 2021 for review) has recently been pointed to as an important research direction in psychology (Gruber et al. 2021). Interestingly, the prevalence of parental burnout has been found to be much higher in Western countries (Roskam et al. 2021), i.e., precisely where the cult of the child is the most apparent. The second indirect indicator that parental stress and burnout may be on the increase is a recent retrospective study by Mathy (2019) on 470 parents, suggesting that the prevalence of parental burnout in Belgium may have been eight times lower in the 1960s than nowadays. As the study was retrospective and conducted on a small sample, the results must be taken with great caution. However, they dovetail with those of the studies conducted in the school domain, where the cult of the child seems to have paved the way for teachers' burnout (see below).

3.5. Summary

As the foregoing shows, changes in the representation of the child have been paralleled with changes in parenting practices towards imposing fewer constraints on children and focusing more on their needs and protection. In parallel with this development, cohort studies found a host of negative outcomes for children, and parental burnout is now a hot topic. Based on this evidence, we can only speculate that the cult of the child has brought about these negative consequences. No study so far has directly tested the hypothesis of a direct link between the cult of the child and the negative outcomes observed in children and parents. The next section, showing the negative consequences of child-centred curriculums in schools, provides further evidence of the potential effects of the cult of the child and suggests that studies that directly and thoroughly examine its impact on parenting and schools are needed.

4. Cult of the Child in Schools

4.1. Toward a Child-Centered School

In the 19th century, school systems were established in Europe and the United States. Between 1852 and 1918, American states adopted diverse laws requiring school enrolment for children of 8 years of age and older (Mendez et al. 2017), and between 1881 and 1888, the French parliament approved a series of laws in favour of compulsory education, free primary education and secularism (Hirsch 2016). These projects were the direct result of the Enlightenment; they were aimed at creating citizens who were aware of public issues

and therefore able to take part in public government and debate, in accordance with the fundamental principles of emerging democracies.

At the same time, the child began to take its place in official texts and other pedagogical treaties. For example, the *Dictionnaire de Pédagogie* (Buisson 1911), written by a team led by Buisson, winner of the Nobel Peace Prize, founder of the League of Human Rights and director of French primary education between 1879 and 1896, served as a theoretical and practical guide for teachers (Nora 1997), and was partly based on contributions from Fröbel, Pestalozzi and Rousseau. Several articles reflected the desire to understand the nature of children in order to instruct them better. For example, the article on "school discipline" stated that "complete immobility and absolute silence are incompatible with the nature of childhood" (translated from the French, p. 200).

But it was only at the end of the last century that the child became the centre of some Western school systems. This child-centred school was promoted at the international level by the agencies mentioned above—the OECD, UNESCO and UNICEF—which worked for the acceptance of international conventions upholding the needs and rights of every child, such as the Dakar Framework for Action or the Millennium Development Goals. Their objectives were to advocate access to education for all and combat all forms of discrimination and violence against children, and also to promote child-centred teaching practices (Clair et al. 2012). In line with these principles, UNICEF issued the *Child-Friendly Schools Manual* (UNICEF (United Nations International Children's Emergency Fund) 2009), which states that (1) schools should operate in the best interests of the child; (2) educational environments must be safe, healthy and protective and (3) children's rights must be protected and children's voices heard. These points correspond to our conceptualization of the cult of the child. At the pedagogical level, UNICEF recommends that child-friendly schools should promote active and cooperative methods such as "discovery learning", that learning should be appropriate to the characteristics of each child and that students must be included in all aspect of school life (self-government).

These international agencies also defined the "good teacher". This teacher gives students more freedom, adjusts practices to the characteristics of each student, adopts active methods and is attentive to students' well-being. These criteria were used by the OECD in its Programme for International Student Assessment (PISA) and made it possible to measure the practices of teachers in order to verify how close they came to this ideal.

4.2. The Development of Teacher Practices

The classroom today is very different from that of the first public schools in France and the United States. The teacher who gives lectures and punishes the slightest deviation has been replaced by a more benevolent and caring figure, who leaves much more space and initiative to students. Like the changes in parental practices, these rapid changes can be explained in part by the role played by international agencies such as the OECD, UNESCO and UNICEF (Komatsu et al. 2021). Through PISA, the OECD offers each country a "diagnosis" of their education system (including an evaluation of teachers' practices) and then delivers a set of recommendations (for a review, see Pons 2017). These strategies of assessment, production and diffusion of scientific knowledge, advice and regulation have led, according to some researchers (e.g., Zapp 2021), to an international convergence in the pursuit of schooling goals and a gradual change in teacher training and practices, although this relation is not causal, and differences remain between countries (Pons 2017).

Although it is difficult to objectify these changes in practices—the studies measuring them are too recent—some data are available. For example, traditional practices such as constant monitoring and the extensive use of corporal punishment (Ariès 1973) are distant memories in most Western countries. In a study conducted by UNICEF and UNGEI (2019), less than one percent of 15-year-olds surveyed report having been violented by a teacher in Europe. In terms of pedagogical practices, there has also been, as recent PISA and TIMSS studies have shown, a decline in the West from transmissive practices to a student-centred learning approach that gives students more autonomy and more opportunities to discover

on their own or in groups, and takes their interests into account (OECD 2016), whereas teacher-centred practices remain dominant in Japan, for example (46% of the lesson time devoted to lecture-style presentation against 20% in England, Martin et al. 2008). The growing popularity of child-centred pedagogies such as "flexible classroom," which assigns each child a safe and individualized space in the classroom, is another clue to these changes in practices among teachers.

4.3. Consequences of the Cult of the Child for Students

In this section, we present a representative selection of psychological studies that have examined in greater detail the consequences of these student-centred practices.

4.3.1. Consequences of More Freedom for the Child

The "self-government" movement calls for children to be given more freedom and responsibility in schools. One area of research has examined the effects of giving students more or less freedom. Based on Baumrind's theoretical framework, this area focuses on classroom climate (authoritarian, permissive, autocratic or neglectful).

An authoritative school climate is characterized by a combination of strict but fair discipline and emotional support. This climate appears to reduce the proportion of school bullying (Cornell et al. 2015), violence toward teachers (Berg and Cornell 2016), depressive symptoms and substance abuse (Lau et al. 2017). In contrast, these factors increase in schools where autocratic (strict discipline without emotional support), permissive (emotional support without discipline), or neglectful (neither discipline nor emotional support) climates are observed. Interestingly, the highest scores for violence, bullying, depression and substance abuse are registered where the climate is permissive or neglectful (Lau et al. 2017). In short, these problems increase when discipline is absent.

4.3.2. Consequences of the Focus on the Child's Needs and Interests

The teacher today, encouraged by laws and international agencies, tries to respect the specific needs of each child. After all, numerous quantitative studies published in the field of motivational psychology have shown the positive influence of practices that respect the basic needs of autonomy, competence and belonging on both academic (i.e., school performance) and personal (i.e., self-esteem) factors (for a review, see Ryan and Deci 2020). The potential adverse effects of increased attention to children's needs have not yet, to our knowledge, been rigorously studied. However, some pedagogues in the United States have raised some concerns. Biesta (2017, cited in Floom and Janzen 2020) states: "A student-centred approach encourages that all of the attention be given to students' thoughts and feelings, with little mention of how these thoughts and feeling exist in relation to others and in the world around them. Further, when thinking about the world, child-centred learning creates a dynamic in which the children are relating everything back to themselves—an egotistical way of being". In line with this statement, recent preliminary findings collected in several countries (based on OECD data) have shown strong positive correlations between the student-centred approach and individualism (Komatsu et al. 2021).

This focus on child needs and interests has also led many Western countries to reduce the amount of knowledge in their curriculum and to replace it with activities that are more respectful of children's supposed nature (Hirsch 2016). However, cognitive psychology has shown that this strategy may hinder the development of skills that are considered crucial in the 21st century, such as reading comprehension and critical thinking (for a review, see Tricot and Sweller 2014). For example, readers who have knowledge of a topic consistently perform better in reading about it than those who are less informed; they also make more inferences and learn new words more easily (for a review, see Smith et al. 2021). To give a concrete example, to understand an article about the climate crisis, a person must be familiar with the concepts and methods specific to the discipline; this expertise will make it easier for this person to follow new events about this crisis and to distinguish between what is true and what is false (Byrnes and Dunbar 2014).

Based on this research, one may doubt the effectiveness of new schools' curricula that have emerged in this child-centred perspective. France provides a case study. The country was at the top of the international rankings in reading comprehension in 1991 (Raudenbush et al. 1996), just before the new school curricula, following the child-centred "Jospin Law", introduced in 1989, came into effect; in the latest international PIRLS study, France was ranked second-last in Europe (Colman and Cam 2017). National intergenerational studies have shown a similar decline (a 60% increase in the rate of errors on the same task) between 1987 and 2015 (Andreu and Steinmetz 2016). These studies further reveal a widening gap between students from advantaged and disadvantaged backgrounds, presumably because schools no longer compensate for initial family differences in knowledge (Gilkerson et al. 2017; Hart and Risley 1995). These curricula reforms are now the most compelling explanation for this phenomenon (Hirsch 2016).

4.3.3. Consequences of the Discovery Learning Approach

As stated above, the discovery learning approach has gained some acceptance in education policy in many Western countries (OECD 2016). However, the international PISA and TIMSS studies have shown that discovery learning is negatively associated with student performance (Hwang et al. 2018), whereas lecture-style presentation is positively associated with math and science performance (Schwerdt and Wuppermann 2011).

Alfieri et al. (2011) meta-analysed the results of 164 studies that compared the effectiveness of different instructional methods. Their results show that pure discovery (where students work on their own or in groups on problem-solving tasks, for example) is less effective for learning than enhanced discovery (with more guidance). These researchers also highlighted various factors that facilitate learning: precise feedback on the work done, working examples and scaffolding. Another meta-analysis by Stockard et al. (2018), which included 400 studies, confirmed the effectiveness of direct instruction on students' learning in different disciplines—reading, math or spelling—but also on the development of their self-esteem and on classroom behaviour. Finally, a study by Andersen and Andersen (2017), which included 56,000 Danish students, found that discovery learning increased achievement gaps between students from advantaged and disadvantaged backgrounds.

4.4. Consequences of the Cult of the Child for Teachers

The cult of the child and the associated pedagogical innovations place great demands on teachers: they must respect the needs and interests of each student, devise interesting activities and create a less structured classroom climate. The profession has become more complex and faces new demands. One of the possible consequences of this development is the increased incidence of burnout among teachers.

The first research on this topic dates back to the last two decades of the 20th century (for a review, see Chang 2009), precisely when children were acquiring a new status in many school systems; the number of studies then multiplied in the 2000s, possibly because of the high number of teachers affected by burnout. In a meta-analysis, García-Carmona et al. (2018) showed that 28.1% of the teachers' sample examined suffered from severe emotional fatigue, 37.9% from a high level of depersonalization, and 40.3% from a low level of personal accomplishment. This is especially worrying as teachers' burnout has been associated with absenteeism, difficulty in performing job duties, health problems (Chang 2009), and ultimately lower student performance (Madigan and Kim 2021). Burnout is also one of the reasons for which many teachers, especially younger ones, leave or consider leaving their profession (OECD 2018).

Researchers have identified many personal (e.g., personality) and organizational (e.g., class size) factors that lead to burnout. In a meta-analysis, Aloe et al. (2014) showed that disruptive students' behaviour was an important predictor of burnout among teachers. If we consider that in France, for example, 41% of secondary school teachers feel that their classes are disrupted by "a lot" of noise (OECD 2018); this gives an idea of how high the risk of teachers' burnout may be.

Based on this evidence, though, it is only possible to speculate that the cult of the child is responsible for this phenomenon. The hypothesis of a direct link between the two has not been directly tested so far.

4.5. Summary

Child-centred practices (self-government, a focus on students' needs and interests and discovery learning) are becoming increasingly popular in Western countries. The studies presented in this section show, however, that possible consequences of these practices are a decrease in student learning and performance and an increase in student depressive symptoms, disruptive behaviour and adherence to individualistic values. Teachers, on the other hand, may become exhausted in their efforts to get closer to students. Further research is needed to estimate more precisely the prevalence of the cult of the child in schools and confirm the associations presented in this section.

5. Discussion

Children are the product of our imagination (Koops 2003). If we perceive them as animals or sub-humans, we may legitimately be violent towards them, prevent them from expressing themselves or ignore their needs. Decades of research in psychology taught us that these strategies can seriously hinder children's development. Conversely, if children are seen as innocent, pure and curious, it is important to cherish them, to protect them and to satisfy their every need. In this article, we have argued that the latter view of the child, which has its roots in the 18th century and has had many benefits, has reached an extreme in the last two decades (an extreme that we have called the cult of the child) that may partly explain why the new generations show more symptoms of mental illness and less verbal competence than previous generations.

The fact that the cult of the child occurs both at home and at school is particularly noteworthy. First, it makes it difficult for parents and teachers to escape it, as each party will tend to reinforce it. Second, the fact that the cult of the child manifests itself in the two spheres in which the child spends the most time (i.e., family and school) probably increases its impact.

We also hypothesize that the cult of the child may affect the relationship between children and adults. Adults may become exhausted in their efforts to relate to and protect children, with potential consequences for their mental health, but also for the quality of the education they give to their children. In other words, the cult of the child may well backfire on adults too.

In addition to the above-mentioned consequences for children and adults, we identify an additional risk to be aware of. By getting too close to children, we risk neglecting the ultimate purpose of education: to create citizens. Nussbaum (2010) proposed that a citizen should be able to: understand the issues that affect the city and the world; criticize politicians who betray democracy; examine, argue and debate about different topics; recognize fellow citizens as equals; and ultimately prioritize the general interest over his or her own interest. It is only by producing citizens of this kind that a democracy will be able to face the main challenges of the present times. If the cult of the child creates individuals who are far from this ideal, i.e., more individualistic, more self-focused, less cultivated, and more reluctant to make an effort, this may complicate future struggles for a more sustainable, democratic and egalitarian society.

5.1. Limitations and Directions for Future Research

This article is intended as a first step in understanding the cult of the child and its possible consequences for children and adults. Further research is clearly needed to sustain our hypotheses. A first step would be to document the cult of the child more precisely. From a historical point of view, a comparative analysis of parental and teacher practices over time would inform us more clearly about this new view of childhood and its prevalence today. It is also necessary to examine the differences between socioeconomical levels and

between countries. The majority of the arguments presented in this article are justified via studies conducted among middle- and upper-class people from Western countries. It is likely that the cult of the child is much less present in countries with more collectivist values. We have seen, for example, that teaching in Japan is much more teacher-centred than student-centred (Martin et al. 2008). Similarly, parental burnout, which we assume is linked to the cult of the child, is higher in individualistic countries than in Japan (Roskam et al. 2021).

At the methodological level, we suggest creating measurement tools to identify and evaluate practices of parents and teachers that correspond to the three dimensions that we have identified in this article: (1) a decrease in constraints; (2) a concern to meet children every need; and (3) a concern to avoid any danger. These new tools would then allow for a more accurate examination of the associations between such practices and their consequences for children and adults.

We also recommend using longitudinal methods. For example, current studies tend to show that educational games (Ryan and Rigby 2019), a practice close to the cult of the child, because play is in children's nature, have positive effects on motivation and learning. However, what about the long-term effects? Is there not a risk that the child will have difficulty in the future taking an interest in something that does not match his or her immediate interests? It may also be because of the cult of the child that a decline in motivation during the school career has been observed in many countries (Scherrer and Preckel 2019). Ryan and Deci (2020) argue that this phenomenon is a consequence of the lack of consideration of students' basic needs. The data identified in this article suggest that the opposite hypothesis is plausible: if teachers make students the centre of attention too much, students may lose the will to engage with new subjects.

Finally, we recommend examining the interrelations between parental and teacher practices and how they may influence children's development. We have seen that helicopter parenting was associated with a decrease in student engagement. This may ultimately affect teachers' practices and mental health. Similarly, student-centred approaches may also affect the practices of parents, who may try to compensate for their children's deficiencies as students. As schools and parents are the two pillars that create future citizens, it is important to study these two domains in concert and from an interdisciplinary perspective.

5.2. Implications for Parenting and Parent–Child Relationship in the 21st Century

The "spirit of child protection" has certainly brought about salutary advances, but its extreme version—the cult of the child—may have many drawbacks. The ideal would be to find a fair balance between the immediate interests of the child and those of society. This new balance would require a change in parental practices that would take into account the data we have presented in this article. Concretely, and if the ultimate purpose is to create citizens in line with Nussbaum's conceptualization, we would encourage parents to:

- Take a long-term perspective. The immediate interest of the child is not always the interest of the future adult and of society.
- To balance children's needs with those of others and of the world around them. This entails restoring discipline and standing firm on certain key principles in line with a democratic, sustainable and inclusive society.
- Combine firmness with benevolence in order to achieve this balance. Far from being opposed to benevolence, firmness is its natural ally. Without it, benevolence is a source of insecurity for children, making them incapable of relating to others and their environment with respect (Larzelere et al. 2020).
- Let children breathe, have their own experiences and overcome difficulties without the stifling presence of parents.

The first three points also apply in a similar form to teachers. We further recommend that teachers focus more on knowledge, as it is essential for the development of 21st century skills such as reading comprehension and critical thinking. In addition, teachers should not underestimate their role. Explaining, modelling, giving feedback and providing

scaffolding are essential for student learning, especially for students from a disadvantaged background or with learning disabilities. Letting these students work on problem-solving tasks without guidance may well create a situation of cognitive overload that has deleterious consequences for learning (Kirschner and Hendrick 2020).

5.3. Contribution of This Article and Conclusion

The benefits of the shift in views of children over the last century appear so obvious that the possibility of negatives consequences of the current representations and practices (referred to collectively here as the "cult of the child") have been possibly underestimated and under-researched. The preliminary evidence gathered in this article suggests that research is urgently needed on this issue.

The cult of the child has been promoted at various levels of power in the hope of creating a more democratic and inclusive society. However, such an assumption is not borne out by the facts. Based on the evidence reviewed here, Emile, Rousseau's ward, is unlikely to become a citizen who is concerned with the issues affecting the city, who is critical and who puts the common good first. His most likely fate is to become immature, ignorant and selfish. If, on the other hand, we want parents and teachers to raise children to the rank of citizens capable of meeting ecological, economic, health and social challenges, the goal is to strike a fair balance between the interests of the child and the interests of society.

References

Alfieri, Louis, Patricia J. Brooks, Naomi J. Aldrich, and Harriet R. Tenenbaum. 2011. Does discovery based instruction enhance learning? *Journal of Educational Psychology* 103: 1–18. [CrossRef]

Aloe, Ariel M., Shannon M. Shisler, Benjamin D. Norris, Amanda B. Nickerson, and Tyler W. Rinker. 2014. A multivariate meta-analysis of student misbehavior and teacher burnout. *Educational Research Review* 12: 30–44. [CrossRef]

Andersen, Ida Gran, and Simon Calmar Andersen. 2017. Student-centered instruction and academic achievement: Linking mechanisms of educational inequality of schools' instructional strategies. *British Journal of Sociology of Education* 38: 533–50. [CrossRef]

Andreu, Sandra, and Claire Steinmetz. 2016. «Les Performances en Orthographe des Élèves en fin D'école Primaire (1987–2007–2015)». Ministère de L'éducation Nationale. Available online: https://www.education.gouv.fr/les-performances-en-orthographe-des-eleves-en-fin-d-ecole-primaire-1987-2007-2015-1991 (accessed on 17 September 2021).

Ariès, Philippe. 1973. *Centuries of Childhood: A Social History of Family Life*. London: Harmondsworth.

Aunola, Kaisa, Hakan Stattin, and Jari-Erik Nurmi. 2000. Parenting styles and adolescents' achievement strategies. *Journal of Adolescence (London, England)* 23: 205–22. [CrossRef]

Bailey, Jennifer A., Karl G. Hill, Sabina Oesterle, and J. David Hawkins. 2009. Parenting practices and problem behavior across three generations: Monitoring, harsh discipline, and drug use in the intergenerational transmission of externalizing behavior. *Developmental Psychology* 45: 1214–26. [CrossRef]

Baumrind, Diana. 1971. Current patterns of parental authority. *Developmental Psychology* 4: 1–103. [CrossRef]

Berg, Juliette K., and Dewey Cornell. 2016. Authoritative school climate, aggression toward teachers, and teacher distress in middle school. *School Psychology Quarterly* 31: 122–39. [CrossRef]

Biesta, Gert. 2017. *The Rediscovery of Teaching*. New York: Taylor & Francis.

Boas, George. 1966. *The Cult of Childhood*. London: Warburg Institute.

Bornstein, Mark. 2019. *Handbook of Parenting: Children and Parenting*, 3rd ed. New York: Lawrence Erlbaum Associates Publishers, vol. 1.

Bristow, Jennie. 2014. The double bind of parenting culture: Helicopter parents and cotton wool kids. In *Parenting Culture Studies*. Edited by Ellie Lee, Jennie Bristow, Charlotte Faircloth and Jan Macvarish. New York: Palgrave Macmillan, pp. 200–15.

Buisson, Ferdinand. 1911. *Dictionnaire de Pédagogie et d'Instruction Primaire*. Paris: Librairie Hachette et Cie.

Bullard, Katharine S. 2015. *Civilizing the Child: Discourses of Race, Nation, and Child Welfare in America*. Plymouth: Lexington Books.

Byrnes, James P., and Kevin N. Dunbar. 2014. The nature and development of critical-analytic thinking. *Educational Psychology Review* 26: 477–93. [CrossRef]

Calders, Filip, Patricia Bijttebier, Guy Bosmans, Eva Ceulemans, Hilde Colpin, Luc Goossens, Wim Van Den Noortgate, Karine Verschueren, and Karla Van Leeuwen. 2020. Investigating the interplay between parenting dimensions and styles, and the association with adolescent outcomes. *European Child and Adolescent Psychiatry* 29: 327–42. [CrossRef]

Chang, Mei-Lin. 2009. An appraisal perspective of teacher burnout: Examining the emotional work of teachers. *Educational Psychology Review* 21: 193–218. [CrossRef]

Clair, Nancy, Shirley Miske, and Deepa Patel. 2012. Child Rights and Quality Education. *European Education* 44: 5–22. [CrossRef]

Cline, Foster, and Jim Fay. 1990. *Parenting with Love and Logic: Teaching Children Responsibility*. Colorado Springs: Piñon Press.

Collins, Jhon A., and Bart C. J. M. Fauser. 2004. Editorial: Balancing the strengths of systematic and narrative reviews. *Human Reproduction Update* 11: 103–10. [CrossRef]

Collishaw, Stephane, France Gardner, Barbara Maughan, Jacqueline Scott, and Andrew Pickles. 2012. Do historical changes in parent-child relationships explain increases in youth conduct problems? *Journal of Abnormal Child Psychology* 40: 119–32. [CrossRef]

Colman, Marc, and Marion Le Cam. 2017. PIRLS 2016: Evaluation Internationale des Elèves de CM1 en Compréhension à l'écrit. Évolution des Performances sur Quinze ans. Ministère de L'éducation Nationale. Available online: https://www.education.gouv.fr/pirls-2016-evaluation-internationale-des-eleves-de-cm1-en-comprehension-de-l-ecrit-evolution-des-11429 (accessed on 17 May 2021).

Convention on the Rights of the Child. 1989. Treaty No. 27531. United Nations Treaty Series 1577. pp. 3–178. Available online: https://treaties.un.org/doc/Treaties/1990/09/19900902%2003-14%20AM/Ch_IV_11p.pdf (accessed on 18 June 2021).

Cornell, Dewey, Kathan Shukla, and Timothy Konold. 2015. Peer victimization and authoritative school climate: A multilevel approach. *Journal of Educational Psychology* 107: 1186–201. [CrossRef]

Craig, Lyn. 2006. Does Father Care Mean Fathers Share?: A Comparison of How Mothers and Fathers in Intact Families Spend Time with Children. *Gender & Society* 20: 259–81. [CrossRef]

Cunnigham, Hugh. 2020. *Children and Childhood in Western Society Since 1500*, 3rd ed. London: Routledge.

Curran, Thomas, and Andrew P. Hill. 2019. Perfectionism Is Increasing Over Time: A Meta-Analysis of Birth Cohort Differences From 1989 to 2016. *Psychological Bulletin* 145: 410–29. [CrossRef]

Daly, Mary. 2007. *Parenting in Contemporary Europe. A Positive Approach*. Strasbourg: Council of Europe Publishing.

De Bourdeaudhuij, Ilse, Saskia J. te Velde, Lea Maes, Carmen Pérez-Rodrigo, Maria D. V. de Almeida, and Johannes Brug. 2009. General parenting styles are not strongly associated with fruit and vegetable intake and social–environmental correlates among 11-year-old children in four countries in Europe. *Public Health Nutrition* 12: 259–66. [CrossRef]

De Wolff, Marianne, and Marinus H. van Ijzendoorn. 1997. Sensitivity and attachment: A meta-analysis on parental antecedents of infant attachment. *Child Development* 68: 571–91. [CrossRef]

Dewey, John. 2007. *Democracy and Education*. Teddington: Echo Library. First published 1916.

Dolto, Françoise. 1985. *La Cause des Enfants*. Paris: Robert Laffont.

Dornbusch, Sanford M., Philip L. Ritter, P. Herbert Leiderman, Donald F. Roberts, and Michael J. Fraleigh. 1987. The Relation of Parenting Style to Adolescent School Performance. *Child Development* 58: 1244–57. [CrossRef]

Ducharme, Charlotte, and Camille Beaumont. 2017. *Cool Parents Make Happy Kids*. Vanves: Marabout.

Duffy, Mary, Jean Twenge, and Thomas Joiner. 2019. Trends in mood and anxiety symptoms and suiciderelated outcomes among U.S. undergraduates, 2007–2018: Evidence from two national surveys. *Journal of Adolescent Health* 65: 590–98. [CrossRef]

Eberly-Lewis, Mary B., Melissa Vera-Hughes, and Taryn M. Coetzee. 2018. Parenting and Adolescent Grandiose Narcissism: Mediation through Independent Self-Construal and Need for Positive Approval. *The Journal of Genetic Psychology* 179: 207–18. [CrossRef]

Faircloth, Charlotte. 2014. Intensive parenting and the expansion of parenting. In *Parenting Culture Studies*. Edited by Ellie Lee, Jennie Bristow, Charlotte Faircloth and Jan Macvarish. Hampshire: Palgrave Macmillan, pp. 25–50.

Floom, Rachael, and Melanie Janzen. 2020. A critique of child-centered curriculum. *Journal of Childhood Studies* 45: 56–64. [CrossRef]

Foran, Heather M., Iris Fraude, Christian Kubb, and Marianne Z. Wamboldt. 2020. Assessment of the Parent-Child Relationship. In *The Handbook of Systemic Family Therapy*. Edited by Karen S. Wampler and Lenore M. McWey. Hoboken: Wiley-Blackwell, pp. 35–54.

García-Carmona, Marina, Maria Dolores Marín, and Raimundo Aguayo. 2018. Burnout syndrome in secondary school teachers: A systematic review and meta-analysis. *Social Psychology of Education* 22: 189–208. [CrossRef]

Garcia-Espana, J. Felipe, Kenneth R. Ginsburg, Denis R. Durbin, Michael R. Elliott, and Flaura K. Winston. 2009. Primary access to vehicles increases risky teen driving behaviors and crashes: National perspective. *Pediatrics* 124: 1069–75. [CrossRef]

Gilkerson, Jill, Jeffrey A. Richards, Steven F. Warren, Judith K. Montgomery, Charles R. Greenwood, D. Kimbrough Oller, John H. L. Hansen, and Terrance D. Paul. 2017. Mapping the early language environment using all-day recordings and automated analysis. *American Journal of Speech-Language Pathology* 26: 248–65. [CrossRef]

Ginott, Haim G. 1969. *Between Parent and Teenager*. New York: Macmillan.

Global Partnership to End Violence against Children. 2021. Available online: https://endcorporalpunishment.org/europe-and-central-asia/ (accessed on 12 September 2021).

Golden, Mark. 2015. *Children and Childhood in Classical Athens*. Baltimore: Johns Hopkins University Press.

Gomez Espino, Juan Miguel. 2013. Two sides of intensive parenting: Present and future dimensions in contemporary relations between parents and children in Spain. *Childhood* 20: 22–36. [CrossRef]

Gray, Sara Goto, Kaitlin T. Raimi, Robin Wilson, and Joseph Arvai. 2019. Will Millennials save the world? The effect of age and generational differences on environmental concern. *Journal of Environnemental Management* 242: 394–402. [CrossRef] [PubMed]

Grossman, David C. 2000. The History of Injury Control and the Epidemiology of Child and Adolescent Injuries. *The Future of Children* 10: 23–52. [CrossRef]

Gruber, June, Mitchell J. Prinstein, Lee Anna Clark, Jonathan Rottenberg, Jonathan S. Abramowitz, Anne Marie Albano, Amelia Aldao, Jessica L. Borelli, Tammy Chung, Joanne Davila, and et al. 2021. Mental health and clinical psychological science in the time of COVID-19: Challenges, opportunities, and a call to action. *American Psychologist* 76: 409–26. [CrossRef]

Hart, Betty, and Todd R. Risley. 1995. *Meaningful Differences in the Everyday Experience of Young American Children*. Baltimore: Brookes.

Hays, Sharon. 1996. *The Cultural Contradictions of Motherhood*. London: Yale University Press.

Hirsch, Eric Donald. 2016. *Why Knowledge Matters: Rescuing Our Children from Failed Educational Theories*. Cambridge: Harvard Education Press.

Holt, Louise, ed. 2011. *Geographies of Children, Youth & Families*. London: Routledge.

Hong, Jon-Chao, Ming-Yueh Hwang, Yen-Chun Kuo, and Wei-Yeh Hsu. 2015. Parental monitoring and helicopter parenting relevant to vocational student's procrastination and self-regulated learning. *Learning and Individual Differences* 42: 139–46. [CrossRef]

Howenstein, Jeff, Ashok Kumar, Paul S. Casamassimo, Dennis McTigue, Daniel Coury, and Han Yin. 2015. Correlating parenting styles with child behavior and caries. *Pediatric Dentistry* 37: 59–64.

Hwang, Jihyun, Kyong Mi Choi, Yejun Bae, and Dong Hoon Shin. 2018. Do teachers' instructional practices moderate equity in mathematical and scientific literacy? An investigation of the PISA 2012 and 2015. *International Journal of Science and Mathematics Education* 16: 25–45. [CrossRef]

Janssen, Ian. 2015. Hyper-parenting is negatively associated with physical activity among 7–12 year olds. *Preventive Medicine* 73: 55–59. [CrossRef]

Kay, Carolyn. 2010. How Should We Raise Our Son Benjamin? Advice Literature for Mothers in Early Twentieth-Century Germany. In *Raising Americans–Raising Europeans in the 20th Century*. Edited by Dirk Schumann. Washington, DC: Berghahn Books.

Kennedy, David. 2006. *Changing Conceptions of the Child from the Renaissance to Post-Modernity: A Philosophy of Childhood*. Lewiston: Edwin Mellen Press.

Key, Ellen. 1909. *The Century of the Child*. New York: GP Putman's Sons.

King, Laura. 2016. Future Citizens: Cultural and Political Conceptions of Children in Britain, 1930s–1950s. *Twentieth Century British History* 27: 389–411. [CrossRef]

Kirschner, Paul A., and Carl Hendrick. 2020. *How Learning Happens: Seminal Works in Educational Psychology and What They Mean in Practice*. London: Routledge.

Komatsu, Hikaru, Iveta Silova, and Jeremy Rappleye. 2021. Student-Centered Learning and Sustainability: Solution or Problem? *Comparative Education Review* 65: 6–33. [CrossRef]

Koops, Willem. 2003. Imaging childhood. In *Beyond the Century of the Child. Cultural History and Developmental Psychology*. Edited by Willem Koops and Michael Zuckerman. Philadelphia: University of Pennsylvania Press, pp. 1–18.

Koops, Willem. 2012. Jean Jacques Rousseau, modern developmental psychology, and education. *European Journal of Developmental Psychology* 9: 46–56. [CrossRef]

Kouros, Chrystyna D., Megan M. Pruitt, Naomi V. Ekas, Romilyn Kiriaki, and Megan Sunderland. 2017. Helicopter Parenting, Autonomy Support, and College Students' Mental Health and Well-being: The Moderating Role of Sex and Ethnicity. *Journal of Child and Family Studies* 26: 939–49. [CrossRef]

Kuppens, Sofie, and Eva Ceulemans. 2019. Parenting Styles: A Closer Look at a Well-Known Concept. *Journal of Child and Family Studies* 28: 168–81. [CrossRef]

Lamborn, Susie D., Nina S. Mounts, Laurence Steinberg, and Sanford M. Dornbusch. 1991. Patterns of Competence and Adjustment among Adolescents from Authoritative, Authoritarian, Indulgent, and Neglectful Families. *Child Development* 62: 1049–65. [CrossRef]

Larzelere, Robert E., Marjorie Lindner Gunnoe, Mark W. Roberts, and Christopher J. Ferguson. 2017. Children and Parents Deserve Better Parental Discipline Research: Critiquing the Evidence for Exclusively "Positive" Parenting. *Marriage & Family Review* 53: 24–35. [CrossRef]

Larzelere, Robert E., Marjorie Lindner Gunnoe, Mark W. Roberts, Hua Lin, and Christopher J. Ferguson. 2020. Causal Evidence for Exclusively Positive Parenting and for Timeout: Rejoinder to Holden, Grogan-Kaylor, Durrant, and Gershoff (2017). *Marriage & Family Review* 56: 287–319. [CrossRef]

Lau, Claudia, Mitchell Wong, and Rebecca Dudovitz. 2017. School disciplinary style and adolescent health. *The Journal of Adolescent Health: Official Publication of the Society for Adolescent Medicine* 62: 136–42. [CrossRef]

League of Nations. 1924. Geneva Declaration of the Rights of the Child. Available online: http://www.un-documents.net/gdrc1924.htm (accessed on 12 September 2021).

Lee, Elie, Jennie Bristow, Charlotte Faircloth, and Jan Macvarish. 2014. Experts and parenting culture. In *Parenting Culture Studies*. Edited by Elie Lee, Jennie Bristow, Charlotte Faircloth and Jan Macvarish. New York: Palgrave Macmillan, pp. 51–75. [CrossRef]

Lee, Sang Min, M. Harry Daniels, and Daniel B. Kissinger. 2006. Parental Influences on Adolescent Adjustment: Parenting Styles Versus Parenting Practices. *The Family Journal* 14: 253–59. [CrossRef]

LeMoyne, Terri, and Tom Buchanan. 2011. Does "hovering" matter? helicopter parenting and its effect on well-being. *Sociological Spectrum* 31: 399–418. [CrossRef]

Maccoby, Eleanor E., and John Martin. 1983. Socialization in the context of the familiy: Parent-child interaction. In *Handbook of Child Psychology*. Edited by Paul Henry Mussen. New York: Wiley.

Macvarish, Jan. 2014. The politics of parenting. In *Parenting Culture Studies*. Edited by Elie Lee, Jennie Bristow, Charlotte Faircloth and Jan Macvarish. New York: Palgrave Macmillan, pp. 25–50.

Madigan, Daniel J., and Lisa E. Kim. 2021. Does teacher burnout affect students? A systematic review of its association with academic achievement and student-reported outcomes. *International Journal of Educational Research* 105: 101714. [CrossRef]

Marrou, Henri Irene. 1982. *A History of Education in Antiquity*. Translated by George Lamb. Madison: University of Wisconsin Press.

Martin, Michael O., Ina V. S. Mullis, Pierre Foy, John F. Olson, Ebru Erberber, Corinna Preuschoff, and Joseph Galia. 2008. TIMSS & PIRLS International Study Center. Available online: https://timssandpirls.bc.edu/timss2007/intl_reports.html (accessed on 12 January 2022).

Mathy, Elise. 2019. Prévalence "vie entière" du burnout parental via une étude rétrospective et quantitative sur des personnes âgées entre 60 et 100 ans [Lifetime" Prevalence of Parental Burnout via a Retrospective, Quantitative Study of Individuals Aged 60 to 100 Years]. Unpublished Master's thesis, Université catholique de Louvain, Ottignies-Louvain-la-Neuve, Belgium.

Mendez, Sylvia L., Monica S. Yoo, and John L. Rury. 2017. A brief history of public education in the United States. In *School Choice: A Handbook for Researchers, Policy Makers, Practitioners, and Journalists*. Edited by Robert A. Fox and Nina K. Buchanan. Hoboken: Wiley Blackwell.

Metsäpelto, Riitta-Leena, and Lea Pulkkinen. 2003. Personality traits and parenting: Neuroticism, extraversion, and openness to experience as discriminative factors. *European Journal of Personality* 17: 59–78. [CrossRef]

Michel, Sonya, and Eszter Varsa. 2014. Children and the National Interest. In *Raising Citizens in the Century of the Child*, 1st ed. Edited by Dirk Schumann. New York: Berghahn Books.

Mikolajczak, Moïra, James J. Gross, and Isabelle Roskam. 2021. Beyond Job Burnout: Parental Burnout! *Trends in Cognitive Sciences* 25: 333–36. [CrossRef]

Miller, Pavla. 1989. Historiography of compulsory schooling: What is the problem? *History of Education* 18: 123–44. [CrossRef]

Nora, Pierre. 1997. Lavisse, instituteur national, Le « Petit Lavisse » évangile de la République, in Nora Pierre. In *Les Lieux de Mémoires t.1*. Paris: Quarto, Gallimard.

Nussbaum, Martha C. 2010. *Not for Profit: Why Democracy Needs the Humanities*. Princeton: Princeton University Press.

Organisation for Economic Cooperation and Development (OECD). 2016. *PISA 2015 Results, Volume II: Policies and Practices for Successful Schools*. Paris: OECD Publishing. Available online: https://www.oecd.org/publications/pisa-2015-results-volume-ii-9789264267510-en.htm (accessed on 17 May 2021).

Organisation for Economic Cooperation and Development (OECD). 2018. *TALIS Survey 2018*. Available online: https://stats.oecd.org/index.aspx?queryid=97209 (accessed on 17 May 2021).

Organisation for Economic Cooperation and Development (OECD). 2020. Why Parenting Matters for Children in the 21st Century. An Evidence-Based Framework for Understanding Parenting and Its Impact on child Development. Available online: https://www.oecd.org/publications/why-parenting-matters-for-children-in-the-21st-century-129a1a59-en.htm (accessed on 27 August 2021).

Padilla-Walker, Laura M., and Larry J. Nelson. 2012. Black Hawk down? Establishing helicopter parenting as a distinct construct from other forms of parental control during emerging adulthood. *Journal of Adolescence* 35: 1177–90. [CrossRef]

Parra, Águeda, Inmaculada Sánchez-Queija, Maria del Carmen García-Mendoza, Susana Coimbra, José Egídio Oliveira, and Marta Díez. 2019. Perceived Parenting Styles and Adjustment during Emerging Adulthood: A Cross-National Perspective. *International Journal of Environmental Research and Public Health* 16: 2757. [CrossRef]

Pons, Xavier. 2017. Fifteen Years of Research on PISA Effects on Education Governance: A Critical Review. *European Journal of Education* 52: 131–44. [CrossRef]

Power, Thomas G., Hiroko Kobayashi-Winata, and Michelle L. Kelley. 1992. Childrearing Patterns in Japan and the United States: A Cluster Analytic Study. *International Journal of Behavioral Development* 15: 185–205. [CrossRef]

Raudenbush, Stephen W., Yuk Fai Cheong, and Randall P. Fotiu. 1996. Social Inequality, Social Segregation, and Their Relationship to Reading Literacy in 22 Countries. In *Reading Literacy in an International Perspective*. Edited by Marilyn Binkley, Keith Rust and Trevor Williams. Washington, DC: NCES, pp. 3–62.

Roskam, Isabelle, and Marie Stievenart. 2013. Intergenerational transmission within the family: A special issue. *Psychologica Belgica* 53: 3–5. [CrossRef]

Roskam, Isabelle, Joyce Aguiar, Ege Akgun, Gizem Arikan, Mariana Artavia, Hervé Avalosse, Kaisa Aunola, Michel Bader, Claire Bahati, Elizabeth J. Barham, and et al. 2021. Parental Burnout Around the Globe: A 42-Country Study. *Affective Science* 2: 58–79. [CrossRef]

Rousseau, Jean-Jacques. 2010. *Émile, ou de L'éducation*. Paris: Flammarion, vol. 2. First published 1762.

Ryan, Richard M., and C. Scott Rigby. 2019. Motivational foundations of game-based learning. In *Handbook of Game-Based Learning*. Edited by Jan L. Plass, Richard E. Mayer and Bruce D. Homer. Cambridge: The MIT Press, pp. 153–76.

Ryan, Richard M., and Edward L. Deci. 2020. Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology* 61: 101860. [CrossRef]

Sani, Giulia M. Dotti, and Judith Treas. 2016. Educational Gradients in Parents' Child-Care Time Across Countries, 1965–2012. *Journal of Marriage and Family* 78: 1083–96.

Scherrer, Vsevolod, and Franzis Preckel. 2019. Development of motivational variables and self-esteem during the school career: A meta-analysis of longitudinal studies. *Review of Educational Research* 89: 211–58. [CrossRef]

Schiffrin, Holly H., Hester Godfrey, Miriam Liss, and Mindy J. Erchull. 2015. Intensive parenting: Does it have the desired impact on child outcomes? *Journal of Child and Family Studies* 24: 2322–31. [CrossRef]

Schwerdt, Guido, and Amelie C. Wuppermann. 2011. Sage on the Stage: Is Lecturing Really All That Bad? *Education Next* 11: 63–67.

Segrin, Chris, Alesia Woszidlo, Michele Givertz, Amy Bauer, and Melissa Taylor Murphy. 2012. The Association Between Overparenting, Parent-Child Communication, and Entitlement and Adaptive Traits in Adult Children. *Family Relations* 61: 237–52. [CrossRef]

Segrin, Chris, Michele Givertz, Paulina Swaitkowski, and Neil Montgomery. 2015. Overparenting is Associated with Child Problems and a Critical Family Environment. *Journal of Child and Family Studies* 24: 470–79. [CrossRef]

Shirani, Fiona, Karen Henwood, and Carrie Coltart. 2011. Meeting the Challenges of Intensive Parenting Culture: Gender, Risk Management and the Moral Parent. *Sociology* 46: 25–40. [CrossRef]

Shucksmith, James, Leo B. Hendry, and Anthony Glendinning. 1995. Models of parenting: Implications for adolescent well-being within different types of family contexts. *Journal of Adolescence* 18: 253–70. [CrossRef]

Smith, Reid, Pamela Snow, Tanya Serry, and Lorraine Hammond. 2021. The Role of Background Knowledge in Reading Comprehension: A Critical Review. *Reading Psychology* 42: 214–40. [CrossRef]

Somavia, Juan. 2002. A Future without Child Labor: Global Report under the Follow-Up to the ILO Declaration on Fundamental Principles and Rights at Work. Available online: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwi_1fq1zq_xAhUResAKHXslANQQFjAOegQIIBAD&url=https%3A%2F%2Fwww.ilo.org%2Fwcmsp5%2Fgroups%2Fpublic%2F%40dgreports%2F%40dcomm%2F%40publ%2Fdocuments%2Fpublication%2Fwcms_publ_9221124169_en.pdf&usg=AOvVaw0g6fXpZHLzR5UmYfz6FYMF (accessed on 23 August 2021).

Spitz, René A. 1947. *De la Naissance à la Parole*. Paris: Presses Universitaires de France.

Spock, Benjamin. 1946. *The Common Sense Book of Baby and Child Care*. New York: Duell, Sloan and Pearce.

Spokas, Megan, and Richard G. Heimberg. 2008. Overprotective Parenting, Social Anxiety, and External Locus of Control: Cross-sectional and Longitudinal Relationships. *Cognitive Therapy and Research* 33: 543. [CrossRef]

Stockard, Jean, Timothy W. Wood, Cristy Coughlin, and Caitlin Rasplica Khoury. 2018. The effectiveness of direct instruction curricula: A meta-analysis of a half century of research. *Review of Educational Research* 88: 479–507. [CrossRef]

Thompson, Kristin C., and Richard J. Morris. 2016. History of the Juvenile Justice System. In *Juvenile Delinquency and Disability*. Edited by Kristin C. Thompson and Richard J. Morris. Cham: Springer, pp. 55–72.

Tricot, André, and John Sweller. 2014. Domain-Specific Knowledge and Why Teaching Generic Skills Does not Work. *Educational Psychology Review* 26: 265–83. [CrossRef]

Twenge, Jean M. 2017. *iGen: Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy—and Completely Unprepared for Adulthood*. New York: Atria Books.

Twenge, Jean M. 2020. Why increases in adolescent depression may be linked to the technological environment. *Current Opinion in Psychology* 32: 89–94. [CrossRef] [PubMed]

Twenge, Jean M., Gabrielle N. Martin, and W. Keith Campbell. 2018. Decreases in psychological well-being among American adolescents after 2012 and links to screen time during the rise of smartphone technology. *Emotion* 18: 765–80. [CrossRef]

Twenge, Jean M., W. Keith Campbell, and Ryne A. Sherman. 2019. Declines in vocabulary among American adults within levels of educational attainment, 1974–2016. *Intelligence* 76: 101377. [CrossRef]

United Nations. 1948. Universal Declaration of Human Rights. Available online: https://www.un.org/en/about-us/universal-declaration-of-human-rights (accessed on 3 September 2021).

United Nations. 1959. Declaration of the Rights of the Child. Available online: http://www.cirp.org/library/ethics/UN-declaration/ (accessed on 3 September 2021).

UNICEF (United Nations International Children's Emergency Fund). 2009. *Child Friendly Schools Manual*. New York: UNICEF. Available online: http://67.199.83.28/doc/Child%20Friendly%20Schols%20-%20Manual.pdf (accessed on 17 May 2021).

UNICEF and UNGEI. 2019. *Ending School-Related Gender-Based Violence*; United Nations Girls' Education Initiative. Available online: http://www.ungei.org/EndingSRGBV-thematic-briefs-UNGEI-Dec-2019(2).pdf (accessed on 17 May 2021).

van Ijzendoorn, Marinus, Jarissa Dijkstra, and Adriana G. Bus. 1995. Attachment, intelligence, and language: A meta-analysis. *Social Development* 4: 115–28. [CrossRef]

VanHeuvelen, Tom, and Nick Summers. 2019. Divergent roads: A cross-national intercohort analysis of affluence and environmental concern. *Social Science Research* 82: 72–91. [CrossRef]

Walker, Steven. 2012. Family support services. In *The SAGE Handbook of Social Work*. Edited by Mel R. Gray, James Midgley and Stephen A. Webb. London: SAGE Publications, pp. 613–26.

Walsh, Kieran. 2020. *The Development of Child Protection Law and Policy*. London: Routledge.

Webster-Stratton, Carolyn. 2005. The Incredible Years: A training series for the prevention and treatment of conduct problems in young children. In *Psychosocial Treatments for Child and Adolescent Disorders: Empirically Based Strategies for Clinical Practice*, 2nd ed. Edited by Carolyn Webster-Stratton. Washington, DC: American Psychological Association, pp. 507–55.

Wolf, Joan. 2007. Is breast really best? Risk and total motherhood in the National Breastfeeding Awareness Campaign. *Journal of Health Politics, Policy and Law* 32: 595–636. [CrossRef]

Wolf, Joan. 2011. *Is Breast Best? Talking on the Breastfeeding Experts and the New High Stakes of Motherhood*. New York: New York University Press.

Wolfradt, Uwe, Susanne Hempel, and Jeremy N. V. Miles. 2003. Perceived parenting styles, depersonalisation, anxiety and coping behavior in adolescents. *Personality and Individual Differences* 34: 521–32. [CrossRef]

Yılmaz, Hasan. 2020. Possible result of extreme parenting: Power of helicopter parenting attitude to predict ego inflation. *Pegem Journal of Education and Instruction* 10: 523–54. [CrossRef]

Zapp, Mike. 2021. The Authority of Science and the Legitimacy of International Organisations: OECD, UNESCO and World Bank in Global Education Governance. *Compare, A Journal of Comparative and International Education* 51: 1022–41. [CrossRef]

Article

Still Mother after All These Years: Infants Still Prefer Mothers over Fathers (If They Have the Choice)

Peter Zimmermann * , **Laura Elise Mühling, Lucie Lichtenstein and Alexandra Iwanski**

Department of Psychology, University of Wuppertal, 42119 Wuppertal, Germany;
muehling@uni-wuppertal.de (L.E.M.); lichtenstein@uni-wuppertal.de (L.L.); iwanski@uni-wuppertal.de (A.I.)
* Correspondence: pzimmermann@uni-wuppertal.de

Abstract: Fathering and mothering have changed in many ways within the last decades. Earlier studies showed a clear hierarchy in infant attachment figures with a preference for mothers. This study examined whether infants in the 21st century still prefer mothers over fathers in their expression of attachment behaviors, whether differences in parental involvement still exist, and whether this will result in differences in attachment security to mother and father. A total of 50 German families with infants between 10 and 19 months were observed in an experimental setting and during home visits. Parents reported on their involvement. The results revealed a clear hierarchy with regard to the duration of attachment behaviors directed towards mothers, followed by fathers and strangers. Mothers reported to be more involved in child care on weekdays compared to fathers. Involvement was not associated with attachment variables. Attachment security to mother and father was positively related and did not differ significantly. Infants in the 21st century in a Western country still prefer mothers over fathers in their expression of attachment behaviors. Mothers were more involved in child care than fathers. However, these differences did not result in differences in attachment security to mother and father.

Keywords: mother attachment; father attachment; involvement; attachment behavior; attachment security; AQS; early childhood

1. Introduction

1.1. Historical Changes in Parenting and Parenting Roles

Societal changes in economic, political, or educational conditions and affordances and their effects on the living conditions and arrangements of families can result in changes in individual developmental processes over time (Bronfenbrenner and Crouter 1983; Sameroff 1990). In many Western countries, family constellations, family life, and the corresponding parenting roles and styles have changed in many ways within the last decades (Cowan and Cowan 2019; Walker 2008). Trifan et al. (2014) reported a change from traditional complementary family roles of fathers as decision makers and mothers as caregivers to a more egalitarian household decision-making between parents comparing three cohorts of families from the 1950s until 2011 studying 207 to 457 Swedish families. In parallel, authoritarian parenting also declined, and a more egalitarian family life between parents and children has been established at least in Sweden. Collishaw et al. (2012) reported increases in parents' monitoring and expectations about children's behavior but also increases in quality time that both mothers and fathers spend with their children in the United Kingdom comparing self-reports of adolescents and their parents in two national samples between 1986 and 2006. Several representative surveys in the United States, Australia, and Germany also reported an increase in time that mothers and fathers spend in intense and supportive interaction with their children (Ramey and Ramey 2009; Dotti Sani and Treas 2016; Craig et al. 2014; BMFSFJ 2021). Although more parents in many Western countries seem to spend more time with their children than in former decades, they do not necessarily seem

to feel more self-reliant or comfortable in doing so. Glatz and Buchanan (2021) reported a decline in parental self-efficacy in the beginning of the 21st century in the United States. Parental self-efficacy assesses parents' beliefs in their ability to influence their child in ways that foster positive child development (Jones and Prinz 2005). Thus, the historical trend to more intense parenting may not be paralleled by feeling more secure or competent in caregiving and support. This may be of special relevance for fathers, as a higher rate of father involvement increases the importance of parenting efficacy in fathers (Rominov et al. 2016; Donithen and Schoppe-Sullivan 2021).

1.2. Father Involvement in Child Care

Father involvement includes paternal engagement, accessibility, and responsibility for child care (Lamb et al. 1985). Pleck (2010) proposed a revised conceptualization of father involvement with the components of positive engagement and activities, warmth and responsiveness, and control. Cabrera et al. (2000) especially emphasized the importance of qualitative characteristics of parent–child interactions such as warmth, affect, sensitivity, as well as participation in specific activities with the child for positive child development.

There are some historical changes in popular opinion or expectations regarding father involvement. In an analysis of cultural models of father involvement from the 1920s to 2006, Milkie and Denny (2014) reported a shift from an ideal of enjoyment of fathering to an ideal of paternal involvement as fulfillment in the Unites States. Moreover, fathering ideals may differ (Iwanski et al. Forthcoming). Father involvement also became a hot topic in the scientific literature on family characteristics, parenting, or child development within the last decades. A Web of Science search on the number of articles on father involvement reveals an increase from one article in 1962 to 502 listed articles in 2020.

In popular publications as well as in scientific studies, fathers are increasingly expected to show more involvement in child care and more shared responsibilities. In the literature on parenting or child development, this is mainly associated with positive developmental outcomes for children (Cabrera et al. 2018; Jia et al. 2012). However, there is variability in the actual amount of father involvement depending on specific characteristics of the family, the age of the child, maternal depression, parental conflicts, or the father's personality (Planalp et al. 2013; Planalp and Braungart-Rieker 2016; Donithen and Schoppe-Sullivan 2021). In many countries, fathers still spend less time with their children than mothers and engage more in play activities than in caregiving with their children (Dotti Sani and Treas 2016; Mehall et al. 2009; Robinson et al. 2021; BMFSFJ 2021). So, there may still be differences in the effects of maternal and paternal involvement on child development. Nevertheless, the trends to more paternal involvement and changing family roles in many Western societies may also affect the social and emotional experiences of children with their fathers and, as a consequence, may also influence children's attachment relationship to their fathers.

1.3. Early Research on Attachment to Fathers: Are Fathers Attachment Figures?

Early research on infant–father attachment examined whether fathers are attachment figures at all. In one of the fundamental studies, Cohen and Campos (1974) used an experimental design similar to the one that Harlow had developed for rhesus monkeys (Harlow and Zimmermann 1959) to test whether "the father is an attachment object in infancy" (p. 154). Mother, father, and a stranger sat within equal distance to the infant, and the infant's attachment and affiliation behavior was observed. Infants showed a shorter latency and a longer duration of attachment behaviors towards their mothers compared to their fathers, but both parents were preferred over the stranger in this study with 60 infants in the United States. Infants stayed 66% of the time close to their mothers and 33% of the time close to their fathers. However, vocal signs of distress on separations from mother or father did not differ. Thus, Cohen and Campos (1974) concluded that fathers are attachment figures for infants and remarked that some infants of their study even preferred their fathers over their mothers, which is similar to observations reported by Ainsworth (1967). Another

early study on attachment to father in the UK found that 75% of the infants showed signs of attachment to father at 18 months but not yet at 10 months of age where only 30% showed signs of attachment to their fathers in reaction to different forms of separations (Schaffer and Emerson 1964). Lamb (1976) reported similar proportions of attachment behaviors of infants towards mothers and fathers during home visits in a smaller sample of 20 families in the United States. Subsequent studies on attachment to mothers and fathers using the Strange Situation Paradigm (SSP) in Germany, the United States, and Israel showed that patterns of attachment to mothers and fathers are comparable in percentage and are independent (Grossmann et al. 1981; Steele et al. 1996; Sagi et al. 1985). These early studies on infant–father attachment were conducted during times where fathers were less involved in caregiving than today and when infant daycare was not common. Given this low amount of caregiving by fathers in the last decades, it may seem somehow surprising that infants did show attachment behaviors towards their fathers and that the percentage of secure attachment patterns to fathers was comparable to that of infant–mother attachment already in these early studies.

1.4. Child–Father Attachment: The Role of Paternal Involvement and Paternal Sensitivity

Theorizing and empirical literature on factors influencing the development of attachment security to fathers and on characteristics of the emotional relationship between children and fathers are quite diverse (Paquette 2004; Grossmann et al. 2008; Brown et al. 2007; Cabrera 2020; Ahnert and Schoppe-Sullivan 2020). One major topic refers more to the quantity of the father–child interaction, focusing on father involvement, parental responsibility, and caregiving time. The other major influential factor is the quality of father–child interaction.

Shared time with infants is a widely used operationalization of father involvement (Pleck 2012). Research in the United States shows that fathers spend more time with older children and also increase their number of shared activities from infancy to toddlerhood (Planalp et al. 2013). However, the quantity of paternal involvement is not always positively associated with children's attachment security nor with sensitive or appropriate fathering (Lickenbrock and Braungart-Rieker 2015; Grossmann et al. 2002). Brown et al. (2007) showed that the amount of time that fathers spent with their children was negatively associated with children's attachment security to fathers. This is especially the case when the time spent together is characterized by poor interactive play quality, bad paternal mood, and high paternal intrusiveness. Lickenbrock and Braungart-Rieker (2015) reported that paternal involvement was not significantly associated with attachment security to father and paternal sensitivity. Moreover, Brown et al. (2012) reported no associations or even negative associations between paternal involvement and paternal sensitivity. Some theorists on fathering and empirical evidence suggest that many fathers tend to shape their interaction with their children in a more active and challenging form than mothers (Paquette 2004; Grossmann and Grossmann 2020; StGeorge et al. 2021). Therefore, some studies differentiate between caregiving and play when assessing paternal involvement (Planalp and Braungart-Rieker 2016). However, this has not yet been clearly differentiated in attachment research.

Beside quantitative aspects of fathering, the quality of the father–child interaction may also influence the development of secure attachment to fathers. Children need their attachment figures as a secure haven in times of challenging distress but also as a secure base to explore the surroundings when experiencing more positive affect (Ainsworth 1989; Bowlby 1982; Grossmann et al. 2008). Parents can offer both safe haven and secure base behavior by showing both sensitivity and sensitive exploration support (Grossmann et al. 2008; Kerns et al. 2015). Thus, the quality of caregiving is relevant for attachment security. There is ample evidence that maternal sensitivity and not maternal involvement is a central factor for an infant's attachment security (Ainsworth et al. 1978; Grossmann et al. 1981; Leerkes 2011). However, studies on paternal sensitivity as a predictor of attachment security and other developmental outcomes do not reveal identical effects as for maternal sensitivity

(Grossmann et al. 2002; Rodrigues et al. 2021). The mean effect size of the association between maternal sensitivity and child's attachment security to mother is moderately strong (r = 0.24), while associations of paternal sensitivity as providing a safe haven with attachment security to father are less strong (r = 0.12) (Lucassen et al. 2011; Zimmermann 2017). Earlier studies only showed small positive and negative associations of father involvement and attachment security, and the associations with paternal sensitivity are smaller compared to results from research on mother–infant attachment. If the current historical trend to more father involvement fosters the development of secure attachment, this might be seen in an increase of specific attachment behaviors that infants express directed to their fathers and in more attachment security to fathers.

1.5. Caregiver Preference and Attachment Security to Mother and Father

Attachment research has shown that infants expressed their attachment behaviors longer to their mothers compared to their fathers if the experimental situation forces a choice (Cohen and Campos 1974) and in natural observations including separations that activate the attachment system (Schaffer and Emerson 1964) but not in non-distressing situations (Lamb 1976; Umemura et al. 2013). These results suggest an attachment hierarchy at least in early childhood, with a preference of proximity to mother over father when the attachment system is activated. However, the duration of proximity seeking or bodily contact to a caregiver is no sufficient indicator of attachment security, as security also includes the regulation of negative affect with the caregiver and exploration (Ainsworth et al. 1978). In order to put the preference of proximity to one caregiver in attachment-related situations into context, it is important to examine whether this is also an indicator of differences in attachment security and whether attachment security can be found more often for infant–mother compared to infant–father attachment.

Already the first studies on infant attachment quality with both parents using the SSP showed a quite comparable distribution of attachment patterns to mother and father (Grossmann et al. 1981; Steele et al. 1996). A review of attachment patterns to fathers in early childhood including 15 studies assessing and reporting the SSP with both mothers and fathers, including 1155 families, found a comparable rate of secure attachment patterns (66.5% to father; 67% to mother). Moreover, an odds ratio of 1.16 (95% CI [0.96 to 1.41], $p = 0.12$) also suggests independence of attachment patterns to mother and father in infancy in the same family (Zimmermann 2017). Comparably, the mean attachment security score to mother and father using the Attachment Q-Sort (AQS) shows no general significant difference (Cadman et al. 2018). Studies on infant and toddler attachment security do not show more attachment security to either mother or father. Therefore, it is important to examine whether the duration of expressed attachment behaviors is an indicator of attachment security and whether this is similar for mothers and fathers.

In a historical perspective, the comparable percentages of secure attachment patterns to mothers and fathers may seem somehow surprising given the fact that many studies on attachment to father were conducted within the last decades, which were characterized by lower paternal involvement for child care compared to the 21st century. Interestingly, a recent study on infant attachment also reports comparable rates of 66% and 63% secure infant attachment patterns to mother and father, respectively (Kuo et al. 2019), as found in earlier studies.

Therefore, a study examining potential caregiver preferences in expressing attachment behaviors comparable to the early studies in father attachment can offer insights in whether changes in parenting roles and involvement over time also lead to changes in preferences of mothers over fathers. The currently reported increase in father involvement in many Western societies might increase infants' tendencies to direct their attachment behaviors towards their fathers. This may especially be the case in situations that activate the attachment system (e.g., stranger approach, negatively valenced stimuli). Moreover, if the amount of involvement is a relevant variable for the development of attachment security, this might be relevant for both mothers and fathers. However, a complete interpretation

of an attachment preference for one caregiver needs the inclusion of overall attachment security to mother and father within the same family.

1.6. Aims of the Study

If fathers in the 21st century spend more time with child care, this might affect infants' reactions towards their fathers, perhaps also in the attachment domain. Thus, our study had four aims.

(1)   First, we wanted to replicate and expand an earlier study on characteristics of infant–father and infant–mother attachment conducted more than 40 years ago (Cohen and Campos 1974). More precisely, we wanted to examine whether infants in the 21st century still prefer mothers over fathers in their expression of attachment behaviors in direct triadic interactions. Thus, we expected infants to show a comparable duration of attachment behaviors towards mothers and fathers. However, both parents still should be preferred over strangers.

(2)   Second, we examined differences in involvement between mothers and fathers in the sample to test whether we find empirical evidence for the general trend in society in community samples of current parents. We specifically studied different domains of involvement.

(3)   Third, we studied more closely whether the duration of infants' attachment behaviors and also whether attachment security (assessed by the AQS) are associated with involvement in mothers and fathers.

(4)   Fourth, as an extension to our earlier research questions, we examined whether infant attachment security (AQS) differs between mothers and fathers. We did not expect differences in attachment security between parents.

2. Materials and Methods

2.1. Participants

The sample consisted of 50 infants (52% female) and their mothers and fathers from Germany. Infants' age ranged from 10 to 19 months with a mean age of 14.07 months (SD = 2.89 months). Mothers' age ranged from 21 to 40 years (M = 30.88 years; SD = 4.42 years) and fathers' age from 22 to 53 years (M = 33.62 years; SD = 6.08 years). Most parents were highly educated with 76% of the mothers and 62% of the fathers reporting a general university entrance qualification (German Abitur or Fachabitur). Twenty-two percent of the mothers and 34% of the fathers reported a secondary school certificate or at least ten years of school (German Realschulabschluss), and only 2% of the mothers and 4% of the fathers had no educational qualification. Most parents finished professional education (58% of the mothers and 66% of the fathers). Approximately one third of the parents reported a university degree (38% of the mothers and 28% of the fathers). Only 4% of the mothers and 6% of the fathers had no professional qualifications. In 49 out of the 50 participating families, parents reported the mother to be the primary caregiver, whereas one family reported the father to be the primary caregiver.

Approximately half of the mothers (46%) were employed with an average working time of 10.85 hours per week (SD = 13.84 hours), but nearly all fathers (92%) were working with an average of 38.89 working hours per week (SD = 14.96 hours). All mothers took parental leave with a range from eight to 78 weeks (M = 46.66 weeks, SD = 17.02 weeks), whereas only half of the fathers (48%) reported parental leave ranging from two to 60 weeks (M = 4.64 weeks; SD = 8.91 weeks). We recruited families in public kindergartens, daycare facilities, and via social media.

2.2. Procedure and Measures

Two experimenters visited all families at home and videotaped an experimental interaction similar to Cohen and Campos (1974) and family interactions including dyadic tasks between the infant and only one parent, short separations, and triadic tasks. The home visits lasted about 1.5 h.

Attachment security was observed by six independent raters based on the complete home visit by use of the AQS. The duration of single attachment behaviors was only observed during the experimental interaction using an event-sampling procedure by two different and independent raters who did not also score the AQS and did not observe the complete home visit. Parental involvement was assessed by self-reports, separately by mothers and fathers.

2.2.1. Observation of Attachment Behaviors

Infants' attachment behaviors were observed in interaction with the infant, both parents, and a female stranger, for a total of four experimental trials (adapted from Cohen and Campos 1974). The presence of the stranger (in the first two trials) combined with presenting audiotaped infant cries for emotion contagion (in the last two trials) served to activate the infant's attachment system, consequently eliciting attachment behaviors (Geangu et al. 2010).

Procedure: Both parents and the stranger were seated on the floor in front of the infant at a 1.5 m distance on marked spots. The positions of mother and father (to the left or to the right of the stranger) were counterbalanced across subjects. At the beginning of each trial, the experimenter seated the infant on a specific spot on the floor. The stranger showed a neutral facial expression and did not interact with the infant or the parents during the trials. The parents were instructed to react to their infants' signals as they would usually do but not to initiate interaction by themselves and not to leave their assigned spots during trials. The infant was free to move throughout the room during trials. Each trial lasted one minute. The total duration of the observation was about five minutes.

Coding: We observed the duration of three attachment behaviors: (1) proximity seeking, (2) bodily contact, and (3) distress vocalization, and, in addition, (4) duration of looks. All behaviors were coded independently directed to either the mother, the father, or the stranger by two independent raters with extensive training. One rater coded two trials per infant. The second rater independently coded the other two trials. The interrater reliability was good with K > 0.65.

2.2.2. Observation of Attachment Security

Infant's attachment security to mother and father was assessed by use of the Attachment Q-Sort (Waters 1995). The AQS consists of a set of 90 cards that each contain a written characteristic of child attachment behavior as well as affective reactions and explorative behaviors in their familiar home environment. In order to describe a particular infant based on the video tapes of the conducted home visits, reliable coders sorted these 90 items equally into nine categories ranging from 1 = "not at all characteristic" through 5 = "neither characteristic nor uncharacteristic" to 9 = "very characteristic" with 10 items per category depending on how characteristic these behaviors were for the observed infant. Each infant's Q-Set was correlated with the prototype for attachment security (Waters 1995), resulting in scores ranging from −1.00 to 1.00 with higher scores indicating higher attachment security.

Six raters, who received extensive training, coded attachment security to mother and father separately and independently. Interrater reliability was good with a mean agreement of r = 0.75 on all Q-Sort-items and a maximum mean deviation of 0.10 with regard to attachment security prototypicity.

2.2.3. Self-Report of Parental Involvement

We assessed parental involvement by the use of six items with an open-response format. Two questions asked how much time the respective parent spends at home on average during the week and on weekends (e.g., "On average, how much time do you spend at home during the week?"). The other four items asked about the amount of time spent in direct interaction with the infant. Two items asked how much time on average parents spent reading to the infant during the week and on weekends. Two further items

asked how much time on average parents spent caring for the infant, also during the week and on weekends.

One father did not provide information on his involvement. Thus, the analyses were based on 49 father-involvement data.

2.3. Data Analysis

Data were analyzed with SPSS28 (IBM Corporation 2021). As the participants in our study came from families, data for infants, mothers, and fathers were not independent. Therefore, we analyzed infants' attachment behaviors and their attachment security to their mother and father as a within-subject MANOVA design. We used paired *t*-tests for expected differences between attachment behaviors directed to mother compared to father within the same family and differences to the expression towards the stranger. We first report results for infants' attachment behaviors towards the mother, the father, and the stranger examining differences of the person towards whom infants directed their attachment behaviors. Second, we used paired *t*-tests to examine differences in involvement between parents. Third, we report zero-order correlations between infant´s attachment behavior, attachment security, and parental involvement. Finally, we examined differences in infant attachment security towards mother and father using a paired *t*-test.

3. Results

3.1. Differences in Duration of Observed Infant Attachment Behaviors towards Mother, Father, and Stranger

A repeated-measures MANOVA showed a significant effect of the person towards whom the infant expressed attachment behaviors, $F(2,48) = 19.64$, $p < 0.0001$, $\eta^2 = 0.345$ (see Figure 1). Posthoc paired *t*-tests showed that the duration of attachment behaviors towards the mother was significantly longer compared to the duration of attachment behaviors towards the father, $t(49) = 3.26$, $p = 0.002$, Cohen's d = 0.75, and the stranger, $t(49) = 5.32$, $p < 0.001$, Cohen's d = 1.12. Additionally, the duration of attachment behaviors towards the father was significantly longer compared to behaviors towards the stranger, $t(49) = 2.69$, $p = 0.010$, Cohen's d = 0.55.
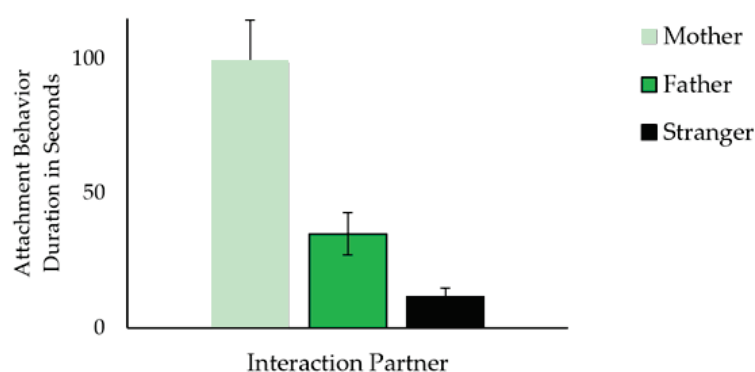
Figure 1. Duration of attachment behaviors towards mother, father, and stranger (means and SE).

3.2. Differences in Proximity Seeking, Bodily Contact, Distress Vocalization, and Looks towards Mother, Father, and Stranger

Next, we examined differences in the duration of the three observed attachment behaviors: proximity seeking, bodily contact, and distress vocalization towards mother, father, and stranger. Furthermore, we tested differences in the duration of looks to mother, father, and stranger. Therefore, we present results comparable to the original study by Cohen and Campos (1974) (see Figure 2). Paired *t*-tests revealed that infants showed significantly longer proximity seeking, bodily contact, and distress vocalization towards mother than father (proximity seeking: $t(50) = 3.27$, $p = 0.002$, Cohen's d = 0.75; bodily contact: $t(50) = 3.10$, $p = 0.003$, Cohen's d = 0.69; distress vocalization: $t(50) = 2.27$, $p = 0.028$,

Cohen's d = 0.37) and stranger (proximity seeking: t(50) = 4.94, *p* < 0.001, Cohen's d = 1.03; bodily contact: t(50) = 5.51, *p* < 0.001, Cohen's d = 1.14; distress vocalization: t(50) = 3.15, *p* = 0.003, Cohen's d = 0.46). Furthermore, infants sought proximity (t(50) = 1.80, *p* = 0.077, Cohen's d = 0.36) and bodily contact (t(50) = 3.41, *p* = 0.001, Cohen's d = 0.73) longer towards father than stranger. The duration of distress vocalization towards father and stranger did not differ significantly. Paired *t*-tests showed that the duration of looks to mother compared to father did not differ significantly. In contrast, looks to stranger were significantly longer than looks to mother, t(50) = −3.29, *p* = 0.002, Cohen's d = −0.60), and the father, t(50) = −4.21, *p* < 0.001, Cohen's d = −0.64).
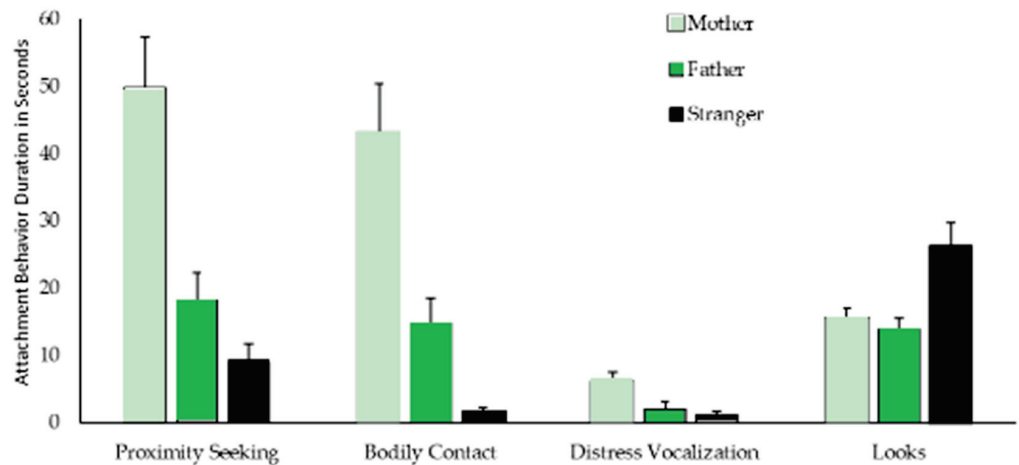
Figure 2. Duration of observed attachment behaviors and looks to mother, father, and stranger (means and SE).

3.3. Differences in Maternal and Paternal Involvement

Mothers reported to spend significantly more time at home on weekdays (t(49) = −2.38, *p* = 0.021, Cohen's d = 0.36) than fathers, but not on weekends. Mothers also reported to spend more time reading and caring for the infant than fathers (t(50) = 5.10, *p* < 0.001, Cohen's d = 0.60) (see Figure 3).
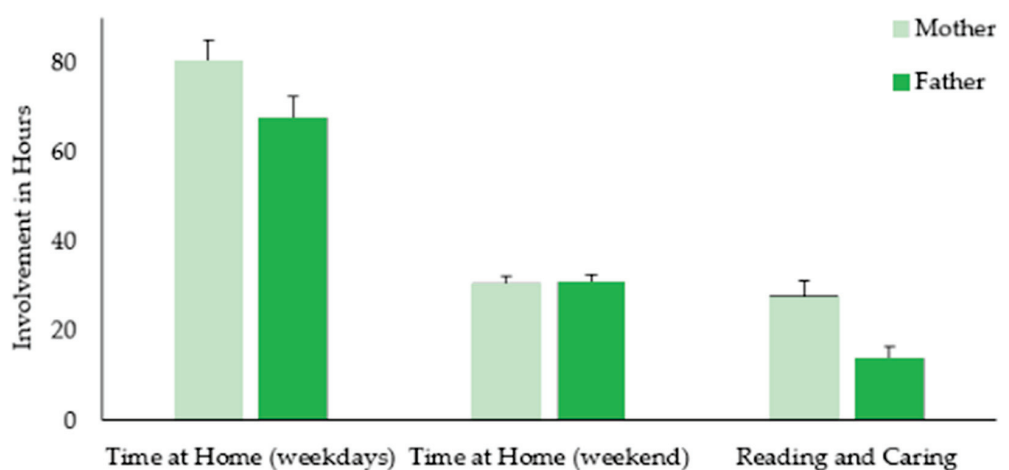
Figure 3. Self-reported parental involvement by mothers and fathers (means and SE).

3.4. Correlational Analyses

Table 1 shows zero-order correlations between all study variables. Correlation coefficients for mother variables are presented below the diagonal, whereas father variables are presented above the diagonal.

Infants' attachment security to father measured with the AQS was significantly positively related to the observed duration of infant attachment behaviors towards father. There were no other significant associations between father variables.

For mothers, the reported time spent at home during weekdays and weekends was significantly positively correlated. The attachment security (AQS) to mother was significantly negatively related to the duration of looks to mother during the experimental task. There were no other significant associations between the mother variables.

Table 1. Correlations of all variables (correlations for mothers below diagonal, correlations for fathers above diagonal).

	Involvement				Duration of	
	Time at Home (weekdays)	Time at Home (weekends)	Reading and Caring	Attachment Security (AQS)	Attachment Behaviors Towards Parent	Looks
Involvement:						
Time at Home (weekdays)	-	0.18	0.16	−0.21	−0.27	−0.08
Time at Home (weekends)	0.66 ***	-	−0.15	−0.17	0.02	−0.09
Reading and Caring	0.06	−0.14	-	−0.26	−0.05	−0.14
Attachment Security (AQS)	−0.15	−0.12	−0.26	-	0.38 **	0.20
Duration of Attachment Behaviors	−0.10	0.00	−0.11	0.08	-	0.14
Duration of Looks	0.13	0.19	−0.17	−0.31 *	0.03	-

N = 49–50; *** $p < 0.0001$, ** $p < 0.01$, * $p < 0.05$.

3.5. Differences in Infant Attachment Security to Mother and Father

Finally, we tested for differences in infant attachment security to mother and father (AQS). A paired t-test revealed no significant differences in attachment security to mother and father. Thus, infants are comparably securely attached to mother and father (see Figure 4). Attachment security scores in the AQS were significantly positively associated ($r(50) = 0.47$, $p < 0.001$).
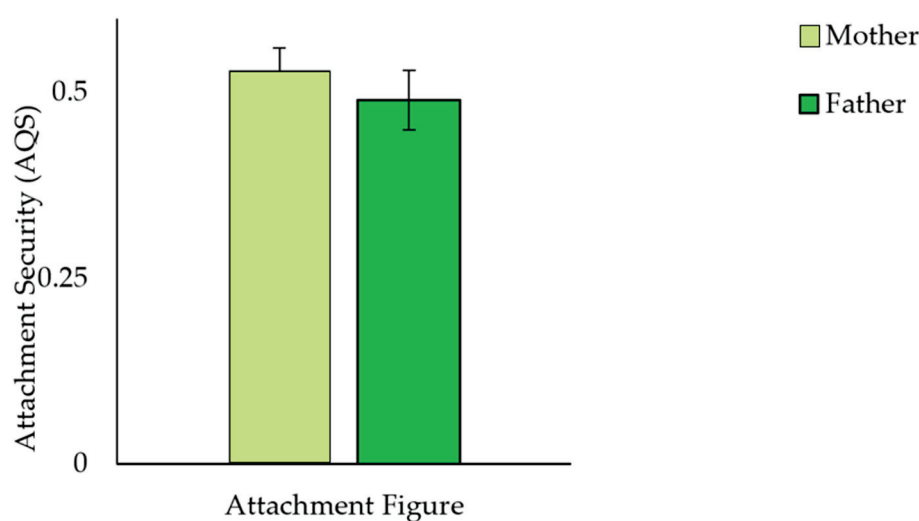
Figure 4. Attachment security (AQS) to mother and father (means and SE).

4. Discussion

The current study had four aims: (1) We wanted to examine whether infants in the 21st century still prefer mothers over fathers in their expression of attachment behaviors, (2) to

examine differences in involvement between mothers and fathers, (3) to study whether the duration of infants' attachment behaviors and also whether attachment security are associated with maternal and paternal involvement, and (4) to examine whether infant attachment security differs between mothers and fathers.

4.1. Caregiver Preference

In this study, we aimed to replicate and expand an earlier study on characteristics of infant–father and infant–mother attachment conducted more than 40 years ago in the United States (Cohen and Campos 1974) now in the 21st century. Cohen and Campos (1974) reported that infants prefer their mothers over their fathers as attachment figures by showing more proximity seeking and bodily contact towards mothers in an experimental study. Given the many changes in family life within the last decades and empirical studies reporting an increasing number of fathers who are willing to show more involvement in child care, we wanted to examine whether in attachment contexts it is still the mother who is preferred over the father after all these years.

Actually, the results of the study suggest no change in infants' preferences to stay closer to their mothers compared to their fathers in more than 40 years of change in family life. Even in the 21st century, infants show a longer duration of attachment behaviors directed to their mothers compared to their fathers. Infants stayed longer in close proximity, had longer bodily contact, and also directed their vocal signs of distress longer to their mothers compared to their fathers.

The experimental design of the study with equal distance to the mother and the father, counterbalancing the location of the parents during the trials and reducing and controlling active initiation of interactions by both parents, increased the probability that the observed duration and the direction of attachment behaviors depend on the infant's choice. This is similar in the SSP, which is designed to make the infant's attachment pattern salient and not the infant's reaction to the parent's caregiving in that specific moment (Ainsworth et al. 1978). In contrast, during natural observations, parents usually differ in their distance and activity when interacting with the child, as reported by Lamb (1977) who found that fathers vocalized more than mothers to their children during home visits. Therefore, in natural observations, parental behavior may influence infants' proximity seeking, and consequently the results are confounded. Moreover, attachment behaviors can only validly be assessed by proximity seeking or bodily contact when the attachment system is activated and infants are mildly distressed (Ainsworth et al. 1978; Waters and Sroufe 1983). Indeed, differences in preference of close contact to one parent over the other are mainly shown when children are distressed but not when they are content (Umemura et al. 2013). In this study, we used the stranger and negative-emotion contagion by playing audio-taped infant cries as mild-distress elicitors. Thus, we conclude that staying closer to one parent compared to the other may not be elicited by a parental difference in offers to play or to interact. The results of our study on the duration of attachment behaviors towards mothers and fathers might be interpreted as indicating an attachment hierarchy favoring mothers. Umemura et al. (2013) similarly interpreted their results in this direction showing that mothers were preferred over fathers in their study. This study also reveals evidence that infants in the 21st century prefer one parent over the other when feeling distressed, resulting in an individual attachment hierarchy towards the primary caregiver during distress (Umemura et al. 2013). However, there is no preference when the infant's attachment system is not activated (i.e., infants are content).

Our study also showed that infants expressed their attachment behaviors longer towards parents compared to the stranger. The clear preference of parents over strangers in attachment-behavior duration also replicates the results by Cohen and Campos (1974). However, infants looked longer towards the stranger compared to both parents, showing that the stranger is of interest to them. Long looks of infants to the stranger have also been reported by Lamb (1976) during home visits. However, looking without signaling distress

has been interpreted as affiliative behavior or a sign of curiosity and not as attachment behavior (Lamb 1977).

Our results also revealed that infants show longer durations of proximity seeking, bodily contact, and distress vocalization towards their mothers compared to their fathers. The effect sizes of these differences were greater for proximity seeking and bodily contact than for distress vocalization. We assume that distress vocalization is a parent-activating attachment behavior signaling the need for external support. In contrast, the other two forms of attachment behaviors are autonomous actions of the infants. Moreover, distress vocalization has a shorter mean duration compared to proximity seeking and bodily contact suggesting that children directed their attachment needs to both parents but then did not remain passively seated but moved closer to one attachment figure. One of the most intriguing results of this study is the preference of proximity and close bodily contact to mothers over fathers. This may be a result of still-existing differences in interaction styles between parents. Many studies showed that mothers provide more affection and offer more proximity towards their children, while the father's interaction style is more characterized by active play and structuring (Sabey et al. 2018; Barnett et al. 2008; Starrels 1994; StGeorge et al. 2021). Children's expectations regarding their parents' behavior are based on their experiences with each parent. We therefore assume that young children expect more closeness and regulation via body contact from their mothers compared to their fathers. Moreover, mothers may also influence the longer duration of bodily closeness by intentionally maintaining physical contact with their children. In some cases, the duration of bodily contact may not only reflect the decision of the child but also a decision of the mother.

4.2. Parental Involvement

The second aim of our study was to examine whether the participating parents indeed live according to the postulated trend towards more paternal involvement and shared responsibilities. The results showed that mothers spend more time at home with the child and spend more time with child care during the week compared to fathers. In contrast, during weekends, the time with child care and reading is similar. However, the effect sizes of these differences are small to moderate. We conclude that the families studied here do not equally share responsibility for child care, but the time difference is not huge. This distribution of child care is rather common for German families and seems similar to other studies showing that although there is a historic increase in paternal involvement or attitudes that favor more paternal involvement, mothers still spend more time with child care than fathers in many Western countries (McMunn et al. 2017; Dotti Sani and Treas 2016; Walper and Lien 2018; BMFSFJ 2021).

4.3. Involvement and Attachment

Third, we examined associations of attachment behaviors and attachment security with parental involvement. We tested whether high paternal involvement would promote infants' attachment behavior towards their fathers or attachment security to their father. The results showed no significant association between any of the father-involvement variables and the duration of attachment behaviors expressed towards him. Moreover, paternal involvement showed negative but non-significant associations with attachment security to the father as assessed with the AQS. This is in line with earlier research on involvement and attachment to father showing no significant associations or even negative associations (Brown et al. 2007; Lickenbrock and Braungart-Rieker 2015). Thus, fathers' time spent at home or even time spent with reading and caring seems to be no guarantee that infants seek them as attachment figures when the mother is available at the same time. Father involvement also does not promote infants' attachment security to their fathers, as assessed during home visits. Thus, as research on infant–father attachment has shown, fathers' quality of interaction and not quantity of interaction seems to be relevant for infant–father attachment security (Brown et al. 2007; Grossmann et al. 2002).

However, the results are similar for mothers. Maternal involvement is also not significantly associated with the duration of infants' attachment behaviors directed to them and also not with infant–mother attachment security in the AQS. The rich literature on maternal sensitivity and attachment security quite early focused on the quality of interaction (Ainsworth et al. 1978; Grossmann et al. 1981; Leerkes 2011) and not on involvement or time spent with the infant. However, the associations between maternal involvement and infant attachment are also diverse and differ between studies and samples. Fuertes et al. (2016) reported that mothers of securely attached children showed higher involvement in play and lower involvement in primary care than mothers of insecurely attached children. As we had no longitudinal or intervention design, we cannot interpret the results as causal associations.

4.4. Attachment Security and Attachment Behaviors to Mothers and Fathers

The fourth aim of our study was to examine whether infant attachment security differs between mothers and fathers. The duration of single attachment behaviors alone does not represent the complete organization of attachment security as a balance of proximity seeking and exploration (Ainsworth et al. 1978). Securely attached infants seek proximity when distressed but recover quickly in contact to the caregiver. Insecure-ambivalently attached infants also show a long duration of attachment behaviors, keeping them close to their caregiver but without effective regulation and exploration. We therefore also examined whether attachment security to mothers and fathers assessed with the AQS differs between parents. Interestingly, and in contrast to the observed duration of attachment behaviors when infants have to choose between their mother and their father in the experimental interaction task, infants showed similar attachment security to mothers and fathers. This is in line with the results of the meta-analysis by Cadman et al. (2018) reporting similar mean AQS scores for attachment to mothers and fathers from mainly independent samples. This is one of the few studies that assessed infants' AQS attachment security to mothers and fathers in the same family at the same time. Similar to the results of our study, Umemura et al. (2013) showed that attachment security (assessed in the SSP) was not associated with caregiver preference when distressed. We conclude that even if infants still express longer attachment behaviors towards their mothers compared to their fathers, this does not mean that they are less securely attached to their fathers.

Interestingly, the duration of attachment behaviors expressed to fathers was positively associated with infants' attachment security to fathers in the AQS. However, this was not the case for attachment security to mothers, suggesting differences in the meaning of duration of expressed attachment behaviors for infants when both parents are present. Especially the duration of proximity seeking and bodily contact in contrast to expressions of secure base behavior in contact with mothers and fathers needs to be explored (Grossmann and Grossmann 2020).

Finally, the only moderate positive association between attachment security to mother and father in the AQS suggests that some infants show quite different attachment security scores to mother than to father. However, this differentiation is not associated with quantitative involvement. Shared time alone does not guarantee attachment security.

4.5. Summary

Taken together, we found a preference for the mother over the father when infants have the choice to address their attachment behaviors to one of their two caregivers when both are closely available. We cannot interpret this attachment preference as an effect of primary caregiver status alone as differences in involvement do not explain this preference. However, when observing infants' interaction during the home visits for a longer period and in other interaction contexts using the AQS, the infant's attachment security to father is not lower than to mother. This shows that mothers and fathers similarly can provide attachment security for their infants, probably functioning as a safe haven as well as a secure base, and independent of the status as primary or secondary attachment figure.

Thus, time for child care does not automatically cause the status as the primary caregiver or an attachment figure for the infant. Additional aspects, e.g., the quality of interaction or the effectiveness of emotion regulation by each parent, might be more significant. Especially for family court decision-making, it is important not to interpret such differences in caregiver preference or attachment behavior duration in one specific context as a valid indicator of a general and overall difference in attachment security to mother and father (Forslund et al. 2021). Nevertheless, the results also show that in such mildly distressing situations when the infant has the immediate choice between both caregivers, the duration of proximity seeking to father is an indicator of attachment security to him. In contrast, AQS attachment security to mother is not associated with the duration of attachment behaviors to her. As the difference of these associations was marginal given the sample size ($p = 0.06$), we conclude that given the general preference of mother over father in this immediate triadic interaction, the duration of attachment behaviors to father might be a valid indicator of attachment security to father but not that much to mother. However, this warrants replications as a certain duration of attachment behaviors when distressed can be observed in the case of insecure-ambivalent attachment as well as secure attachment and may also depend on sample characteristics. Finally, the study does not support the idea that higher paternal involvement supports the development of attachment security to father. However, there still may be a difference between a positive attitude towards fathering and the actual amount of daily fathering.

4.6. Limitations

Although the current study yielded some important and unique findings, it also has limitations. First, the measure used in the study to assess parental involvement is a self-report, which may be affected by social desirability. Infants' attachment security to both parents was assessed using the Q-Sort methodology. During the home visits, both parents were present. Therefore, no conclusions can be made about how infants would behave and show attachment behaviors with only one parent present. Further studies investigating attachment security to both parents in separate settings using the Q-Sort methodology comparing dyadic and triadic interactions are necessary. We can only report concurrent associations between variables. As the present study lacks longitudinal data or an intervention design for improving involvement, we cannot interpret any causal relationships between parental involvement, attachment behaviors, and attachment security. Therefore, future longitudinal studies are needed. The participants in this study came from Germany, were mainly Caucasian, and were highly educated, which limits the generalizability of our findings. Future research may therefore investigate whether comparable results can be found in other samples.

4.7. Implications for Parenting in the 21st Century

This study showed that despite the historical trend of changes in fathering, mothering, family structure, and individual expectations regarding involvement, infants in the 21st century in a Western country still prefer mothers over fathers in their expression of attachment behaviors. We found a clear attachment hierarchy towards mothers, followed by fathers and strangers. It may well also be that in the 21st century several types of fathers still exist that have already been identified in the 1990s, differentiating caretakers, playmates-teachers, disciplinarians, and disengaged dads (Jain et al. 1996). Therefore, a more differentiated assessment of fathering beyond the time spent with the child might be more appropriate (Schoppe-Sullivan and Fagan 2020). However, although mothers are still more involved in child care on weekdays compared to fathers, in Germany, as in many countries, this neither explains infants' preference or the duration of attachment behavior nor the attachment security to mother or father. If replicated, this might be a relief for current mothers and fathers given that it is not the quantity of time but providing emotional security to infants during distress and during exploration when interacting that fosters attachment security.

References

Ahnert, Lieselotte, and Sarah J. Schoppe-Sullivan. 2020. Fathers from an attachment perspective. *Attachment and Human Development* 22: 1–3. [CrossRef] [PubMed]

Ainsworth, Mary Dinsmore Salter. 1967. *Infancy in Uganda: Infant Care and the Growth of Love*. Baltimore: John Hopkins Press, pp. 1–471.

Ainsworth, Mary Dinsmore Salter. 1989. Attachments beyond infancy. *American Psychologist* 44: 709–16. [CrossRef]

Ainsworth, Mary Dinsmore Salter, Mary Blehar, Everett Waters, and Sally Wall. 1978. *Patterns of Attachment*. Mahwah: Lawrence Erlbaum, pp. 1–405.

Barnett, Melissa A., Min Deng, W. Roger Mills-Koonce, Michael Willoughby, and Martha Cox. 2008. Interdependence of parenting of mothers and fathers of infants. *Journal of Family Psychology* 22: 561–73. [CrossRef] [PubMed]

BMFSFJ. 2021. *Elternsein in Deutschland—Ansprüche, Anforderungen und Angebote bei Wachsender Vielfalt. Empfehlungen für eine Wirksame Politik für Familien. 9. Familienbericht*. Berlin: Bundesministerium für Familie, Senioren, Frauen und Jugend.

Bowlby, John. 1982. Attachment and loss: Retrospect and prospect. *American Journal of Orthopsychiatry* 52: 664–78. [CrossRef]

Bronfenbrenner, Urie, and Ann C. Crouter. 1983. Evolution of environmental models in developmental research. In *Handbook of Child Psychology: Formerly Carmichael's Manual of Child Psychology*. Edited by Paul H. Mussen and Leonard Carmichael. New York: Wiley, pp. 357–414.

Brown, Geoffrey L., Brent A. McBride, Nana Shin, and Kelly K. Bost. 2007. Parenting Predictors of Father-Child Attachment Security: Interactive Effects of Father Involvement and Fathering Quality. *Fathering: A Journal of Theory, Research and Practice about Men as Fathers* 5: 197–219. [CrossRef]

Brown, Geoffrey L., Sarah C. Mangelsdorf, and Cynthia Neff. 2012. Father involvement, paternal sensitivity, and father−child attachment security in the first 3 years. *Journal of Family Psychology* 26: 421–30. [CrossRef]

Cabrera, Natasha J. 2020. Father involvement, father-child relationship, and attachment in the early years. *Attachment and Human Development* 22: 134–38. [CrossRef]

Cabrera, Natasha J., Brenda L. Volling, and Rachel Barr. 2018. Fathers are parents, too! Widening the lens on parenting for children's development. *Child Development Perspectives* 12: 152–57. [CrossRef]

Cabrera, Natasha J., Catherine S. Tamis-LeMonda, Robert H. Bradley, Sandra Hofferth, and Michael E. Lamb. 2000. Fatherhood in the twenty-first century. *Child Development* 71: 127–36. [CrossRef]

Cadman, Tim, Peter R. Diamond, and Pasco Fearon. 2018. Reassessing the validity of the attachment Q-sort: An updated meta-analysis. *Infant and Child Development* 27: e2034. [CrossRef]

Cohen, Leslie J., and Joseph J. Campos. 1974. Father, mother, and stranger as elicitors of attachment behaviors in infancy. *Developmental Psychology* 10: 146–54. [CrossRef]

Collishaw, Stephan, Francis Gardner, Barbara Maughan, Jacqueline Scott, and Andrew Pickles. 2012. Do historical changes in parent–child relationships explain increases in youth conduct problems? *Journal of Abnormal Child Psychology* 40: 119–32. [CrossRef] [PubMed]

Cowan, Carolyn Pape, and Philip A. Cowan. 2019. Enhancing parenting effectiveness, fathers' involvement, couple relationship quality, and children's development: Breaking down silos in family policy-making and service-delivery. *Journal of Family Theory and Review* 11: 92–111. [CrossRef]

Craig, Lyn, Abigail Powell, and Ciara Smyth. 2014. Towards intensive parenting? Changes in the composition and determinants of mothers' and fathers' time with children 1992–2006. *The British Journal of Sociology* 65: 555–79. [CrossRef] [PubMed]

Donithen, Reed, and Sarah Schoppe-Sullivan. 2021. Correlates and predictors of parenting self-efficacy in new fathers. *Journal of Family Psychology*, *in press*. [CrossRef]

Dotti Sani, Giulia M., and Judith Treas. 2016. Educational gradients in parents' child-care time across countries, 1965–2012. *Journal of Marriage and Family* 78: 1083–96. [CrossRef]

Forslund, Tommie, Pehr Granqvist, Marinus H. van IJzendoorn, Avi Sagi-Schwartz, Danya Glaser, Miriam Steele, Mårten Hammarlund, Carlo Schuengel, Marian Bakermans-Kranenburg, Howard Steele, and et al. 2021. Attachment goes to court: Child protection and custody issues. *Attachment and Human Development* 24: 1–52. [CrossRef]

Fuertes, Marina, Anabela Faria, Marjorie Beeghly, and Pedro Lopes-dos-Santos. 2016. The effects of parental sensitivity and involvement in caregiving on mother–infant and father–infant attachment in a Portuguese sample. *Journal of Family Psychology* 30: 147–56. [CrossRef]

Geangu, Elena, Oana Benga, Daniel Stahl, and Tricia Striano. 2010. Contagious crying beyond the first days of life. *Infant Behavior and Development* 33: 279–88. [CrossRef]

Glatz, Terry, and Christy M. Buchanan. 2021. Trends in parental self-efficacy between 1999 and 2014. *Journal of Family Studies* 28: 1–16. [CrossRef]

Grossmann, Karin, and Klaus E. Grossmann. 2020. Essentials when studying child-father attachment: A fundamental view on safe haven and secure base phenomena. *Attachment and Human Development* 22: 9–14. [CrossRef]

Grossmann, Klaus E., Karin Grossmann, Franz Huber, and Ulrike Wartner. 1981. German children's behavior towards their mothers at 12 months and their fathers at 18 months in Ainsworth's Strange Situation. *International Journal of Behavioral Development* 4: 157–81. [CrossRef]

Grossmann, Karin, Klaus E. Grossmann, Elisabeth Fremmer-Bombik, Heinz Kindler, Hermann Scheuerer-Englisch, and Peter Zimmermann. 2002. The uniqueness of the child-father attachment relationship: Fathers' sensitive and challenging play as a pivotal variable in a 16-year longitudinal study. *Social Development* 113: 307–31. [CrossRef]

Grossmann, Karin, Klaus E. Grossmann, Heinz Kindler, and Peter Zimmermann. 2008. A wider view of attachment and exploration: The influence of mothers and fathers on the development of psychological security from infancy to young adulthood. In *Handbook of Attachment: Theory, Research, and Clinical Applications*. Edited by Jude Cassidy and Phillip R. Shaver. New York: The Guilford Press, pp. 857–79.

Harlow, Harry F., and Robert R. Zimmermann. 1959. Affectional responses in the infant monkey. *Science* 130: 421–32. [CrossRef]

IBM Corporation. 2021. *IBM SPSS Statistics for Windows. Version 28.0.* Armonk: IBM Corp.

Iwanski, Alexandra, Laura-Elise Mühling, and Peter Zimmermann. Forthcoming. Do ideal fathers differ from ideal mothers? A study on sensitivity, challenging, and sensitive challenging behavior. *Psicologia*, *under revision*.

Jain, Anju, Jay Belsky, and Keith Crnic. 1996. Beyond fathering behaviors: Types of dads. *Journal of Family Psychology* 10: 431–42. [CrossRef]

Jia, Rongfang, Letitia E. Kotila, and Sarah J. Schoppe-Sullivan. 2012. Transactional relations between father involvement and preschoolers' socioemotional adjustment. *Journal of Family Psychology* 26: 848–57. [CrossRef] [PubMed]

Jones, Tracy L., and Ronald J. Prinz. 2005. Potential roles of parental self-efficacy in parent and child adjustment: A review. *Clinical Psychology Review* 25: 341–63. [CrossRef]

Kerns, Kathryn A., Brittany L. Mathews, Amanda J. Koehn, Cierra T. Williams, and Shannon Siener-Ciesla. 2015. Assessing both safe haven and secure base support in parent–child relationships. *Attachment and Human Development* 17: 337–53. [CrossRef]

Kuo, Patty X., Ekjyot K. Saini, Elizabeth Tengelitsch, and Brenda L. Volling. 2019. Is one secure attachment enough? Infant cortisol reactivity and the security of infant-mother and infant-father attachments at the end of the first year. *Attachment and Human Development* 21: 426–44. [CrossRef]

Lamb, Michael E. 1976. Twelve-month-olds and their parents: Interaction in a laboratory playroom. *Developmental Psychology* 12: 237–44. [CrossRef]

Lamb, Michael E. 1977. The development of mother-infant and father-infant attachments in the second year of life. *Developmental Psychology* 13: 637–48. [CrossRef]

Lamb, Michael E., Joseph H. Pleck, Eric L. Charnov, and James A. Levine. 1985. The role of the father in child development: The effects of increased paternal involvement. In *Advances in Clinical Child Psychology*. Edited by Benjamin B. Lahey and Alan E. Kazdin. New York: Plenum, pp. 229–66.

Leerkes, Esther M. 2011. Maternal sensitivity during distressing tasks: A unique predictor of attachment security. *Infant Behavior and Development* 34: 443–46. [CrossRef] [PubMed]

Lickenbrock, Diane M., and Julia M. Braungart-Rieker. 2015. Examining antecedents of infant attachment security with mothers and fathers: An ecological systems perspective. *Infant Behavior and Development* 39: 173–87. [CrossRef] [PubMed]

Lucassen, Nicole, Anne Tharner, Marinus H. van IJzendoorn, Marian J. Bakermans-Kranenburg, Brenda L. Volling, Frank C. Verhulst, Mijke P. Lambregtse-van den Berg, and Henning Tiemeier. 2011. The association between paternal sensitivity and infant–father attachment security: A meta-analysis of three decades of research. *Journal of Family Psychology* 25: 986–92. [CrossRef] [PubMed]

McMunn, Anne, Peter Martin, Yvonne Kelly, and Amanda Sacker. 2017. Fathers' involvement: Correlates and consequences for child socioemotional behavior in the United Kingdom. *Journal of Family Issues* 38: 1109–31. [CrossRef] [PubMed]

Mehall, Karissa Greving, Tracy L. Spinrad, Nancy Eisenberg, and Bridget M. Gaertner. 2009. Examining the relations of infant temperament and couples' marital satisfaction to mother and father involvement: A longitudinal study. *Fathering* 7: 23–48. [CrossRef] [PubMed]

Milkie, Melissa A., and Kathleen E. Denny. 2014. Changes in the cultural model of father involvement: Descriptions of benefits to fathers, children, and mothers in Parents' Magazine, 1926–2006. *Journal of Family Issues* 35: 223–53. [CrossRef]

Paquette, Daniel. 2004. Theorizing the father-child relationship: Mechanisms and developmental outcomes. *Human Development* 47: 193–219. [CrossRef]

Planalp, Elizabeth M., and Julia M. Braungart-Rieker. 2016. Determinants of father involvement with young children: Evidence from the early childhood longitudinal study–birth cohort. *Journal of Family Psychology* 30: 135–46. [CrossRef]

Planalp, Elizabeth M., Julia M. Braungart-Rieker, Diane M. Lickenbrock, and Shannon R. Zentall. 2013. Trajectories of parenting during infancy: The role of infant temperament and marital adjustment for mothers and fathers. *Infancy* 18: E16–E45. [CrossRef]

Pleck, Joseph H. 2010. Paternal involvement. In *The Role of the Father in Child Development*. Edited by Michael E. Lamb. Hoboken: John Wiley and Sons, pp. 58–93.

Pleck, Joseph H. 2012. Integrating father involvement in parenting research. *Parenting* 12: 243–53. [CrossRef]

Ramey, Garey, and Valerie A. Ramey. 2009. *The Rug Rat Race*. NBER Working Paper No. 15284. Cambridge: National Bureau of Economic Research.

Robinson, Erin Louise, Jennifer StGeorge, and Emily Elsa Freeman. 2021. A Systematic Review of Father-Child Play Interactions and the Impacts on Child Development. *Children* 8: 389. [CrossRef] [PubMed]

Rodrigues, Michelle, Nina Sokolovic, Sheri Madigan, Yiqi Luo, Victoria Silva, Shruti Misra, and Jennifer Jenkins. 2021. Paternal Sensitivity and Children's Cognitive and Socioemotional Outcomes: A Meta-Analytic Review. *Child Development* 92: 554–77. [CrossRef] [PubMed]

Rominov, Holly, Rebecca Giallo, and Thomas A. Whelan. 2016. Fathers' postnatal distress, parenting self-efficacy, later parenting behavior, and children's emotional-behavioral functioning: A longitudinal study. *Journal of Family Psychology* 30: 907–17. [CrossRef]

Sabey, Allen K., Amy J. Rauer, Megan Haselschwerdt, and Brenda Volling. 2018. Beyond "Lots of hugs and kisses": Expressions of parental love from parents and their young children in two-parent, financially stable families. *Family Process* 57: 737–51. [CrossRef] [PubMed]

Sagi, Abraham, Michael E. Lamb, Kathleen S. Lewkowicz, Ronit Shoham, Rachel Dvir, and David Estes. 1985. Security of infant-mother, -father, and-metapelet attachments among kibbutz-reared Israeli children. *Monographs of the Society for Research in Child Development* 50: 257–75. [CrossRef]

Sameroff, Arnold J. 1990. Neo-environmental perspectives on developmental theory. In *Issues in the Developmental Approach to Mental Retardation*. Edited by Robert M. Hodapp, Jacob A. Burack and Edward Zigler. Camebridge: Camedridge University Press, pp. 93–113. [CrossRef]

Schaffer, H. Rudolph, and Peggy E. Emerson. 1964. The development of social attachments in infancy. *Monographs of the Society for Research in Child Development* 29: 1–77. [CrossRef]

Schoppe-Sullivan, Sarah, and Jay Fagan. 2020. The evolution of fathering research in the 21st century: Persistent challenges, new directions. *Journal of Marriage and Family* 82: 175–97. [CrossRef]

Starrels, Marjorie E. 1994. Gender differences in parent-child relations. *Journal of Family Issues* 15: 148–65. [CrossRef]

Steele, Howard, Miriam Steele, and Peter Fonagy. 1996. Associations among attachment classifications of mothers, fathers, and their infants. *Child Development* 67: 541–55. [CrossRef]

StGeorge, Jennifer M., Linda E. Campbell, Taylor Hadlow, and Emily E. Freeman. 2021. Quality and Quantity: A Study of Father–Toddler Rough-and-Tumble Play. *Journal of Child and Family Studies* 30: 1275–89. [CrossRef]

Trifan, Tatiana Alina, Håkan Stattin, and Lauree Tilton-Weaver. 2014. Have authoritarian parenting practices and roles changed in the last 50 years? *Journal of Marriage and Family* 76: 744–61. [CrossRef]

Umemura, Tomo, Deborah Jacobvitz, Serena Messina, and Nancy Hazen. 2013. Do toddlers prefer the primary caregiver or the parent with whom they feel more secure? The role of toddler emotion. *Infant Behavior and Development* 36: 102–14. [CrossRef] [PubMed]

Walker, Janet. 2008. Family life in the 21st century: The implications for parenting policy in the UK. *Journal of Children's Services* 3: 17–29. [CrossRef]

Walper, Sabine, and Shih-cheng Lien. 2018. Routinebetreuung und interaktive "Quality Time": Was beeinflusst, wieviel Zeit Väter wie mit ihren Kindern verbringen? *Zeitschrift für Familienforschung* 30: 29–49. [CrossRef]

Waters, Everett. 1995. Appendix A: The attachment Q-set (version 3.0). *Monographs of the Society for Research in Child Development* 60: 234–46. [CrossRef]

Waters, Everett, and Alan Sroufe. 1983. Social competence as a developmental construct. *Developmental Review* 3: 79–97. [CrossRef]

Zimmermann, Peter. 2017. Bindung an den Vater: Eine andere Bindung? In *Feinfühlige Herausforderung*. Edited by Peter Zimmermann and Gottfried Spangler. Giessen: Psycho-Sozial, pp. 189–206.

Article

Mothers' Perspectives on Resistance and Defiance in Middle Childhood: Promoting Autonomy and Social Skill

Leon Kuczynski [1,*], Taniesha Burke [2] and Pauline Song-Choi [3]

1   Department of Family Relations and Applied Nutrition, University of Guelph,
    Guelph, ON N1G 2W1, Canada
2   Department of Psychology, University of Konstanz, 78464 Konstanz, Germany;
    taniesha.burke@uni-konstanz.de
3   Department of Psychology, University of Victoria, Victoria, BC V8P 5C2, Canada; psong@uvic.ca
*   Correspondence: lkuczyns@uoguelph.ca

Abstract: This study explored mothers' perceptions of their children's resistance to their requests and defiance of parental authority during middle childhood and early adolescence. We were interested in parental perceptions of change in resistance, their interpretations of the meaning of resistance, and parental responses to these behaviors. Forty Canadian mothers of children 9–13 years of age participated for one week in a study focused on parents' experiences of children's resistance and opposition. Procedures consisted of a qualitative analysis of mothers' reports from a five-day event diary and a 1 h semi-structured interview. Mothers reported developmental changes in the quantity and quality of children's resistance to parental requests and expectations. Most mothers reported increasing displays of defiance and direct and indirect expressions of attitude but also noted changes in the skill with which children expressed resistance. Mothers interpreted children's resistance as annoying but normal expressions of children's developing autonomy. Mothers supported children's right to expression of agency through resistance but attempted to channel children's resistance toward socially competent expressions of assertiveness. The findings have implications for a relational perspective on autonomy-supportive parenting and parents' goals for children's developing social competence in the 21st century.

Keywords: autonomy; children's agency; noncompliance; resistance; parent–child relationships; parenting practices; socialization; social relational theory; teenage attitude

1. Introduction

Children's tendency to resist or disobey the requests and directives of their parents or to defy parental authority is a common occurrence in family life. How parents interpret this phenomenon in the 21st century, as in previous centuries, has important implications for how they respond to their children and the nature of parent–child relationships (Kuczynski and Hildebrandt 1997). Parental childrearing values regarding autonomy and obedience provide one lens for understanding parents' interpretations of their children's resistance. Do parents in the 21st century prefer compliant children who immediately obey without challenge? Or do they want children who advocate for themselves by questioning rules and requests, think independently, and make their own decisions?

An important perspective originating from some cultures and religions is that children's resistance is illegitimate and should be suppressed. Strict respect for the authority of elders and communal cooperation is a common expectation for appropriate parent–child relationships in collectivist cultures (Tamis-LeMonda et al. 2008; Trommsdorff and Kornadt 2003). In contrast, individualistic cultures and cultures transitioning to modernity tend to prioritize independence, self-assertion, and the pursuit of autonomous goals.

There have also been social changes in how parents value obedience and autonomy in individualistic cultures. For example, Miller (1990) in the European context and Greven

(1990) in the North American context documented the religious roots of authoritarian childrearing beliefs and practices and argued that unquestioning obedience and coercive parental control persisted as child-rearing norms prior to the first world war. However, Alwin (1988); (Alwin and Tufiș 2021), using data from the United States and Europe, found that there were consistent decreasing trends in parental values for obedience and increasing trends for autonomy as childrearing goals throughout the 20th century and into the present. Despite this trend for parents to value autonomy, Alwin and Tufiș (2021) found relatively greater preferences for obedience among conservative religious groups and cultural groups such as Latinos and Blacks, and greater preference for autonomy and self-direction for parents with higher education, and for females compared to males.

An implication of cultural and historical surveys of childrearing values is that parental responses to children's resistance during the 21st century, particularly in Western cultures, are influenced by prevailing social values that favor children's autonomy. However, researchers who study parenting practices have generally not acknowledged the significance of such background social values. Therefore, in the present study, we were alert to how values for autonomy and obedience contribute to parental perceptions of and responses to acts of resistance and defiance in their children.

In psychological research, there are two principal perspectives on how parents experience and "should" respond to children's refusal to follow parental directives, one using the construct of *noncompliance* and one using the construct of *resistance*. The term "noncompliance" is used in longstanding research on authoritative and authoritarian parenting styles (Baumrind 2012) and clinical/behavioral approaches to child management (Patterson et al. 1992; McMahon and Forehand 2003). The noncompliance construct interprets nonconforming behaviors from the perspective of the adult authorities and is operationalized as the failure to comply immediately and exactly to the parents' requests or standing rules. In this perspective, noncompliance is considered to be a deviant or coercive behavior and concepts such as children's autonomy or agency receive little consideration.

In contrast, the term "resistance" is used to describe children's nonconforming responses from the perspective of the child agent (Kuczynski and Hildebrandt 1997). Resistance, in this view, is a manifestation of children's motives for autonomy and reflects children's attempts to protect their freedom of thought and action from their parents' attempts to control them. Similarly, in self-determination theory, oppositional defiance is thought to be triggered when one's need for autonomy is thwarted by others (Van Petegem et al. 2015).

Children's resistance is associated with the development of autonomy motives, in research on the phenomenon of toddler negativism when young children begin to oppose parents' increasing attempts to control or restrict their behavior (Wenar 1982; Kuczynski et al. 1987). Resistance is also implicated in increased parent–child conflict during early adolescence when children's strivings for independence and freedom of action are thought to be particularly acute (Branje 2018; Laursen et al. 1998). In these perspectives, children's resistance may serve positive developmental functions. For very young children, parental leeway for resistance provides an opportunity for children to develop their skills as agents in the supportive context of the parent-child relationship (Kuczynski and Hildebrandt 1997). In early adolescence, the increased tension between children's desires for more autonomy and parents' efforts to retain control may serve as a catalyst for parents to realign their expectations in a way that recognizes children's developing maturity. These changed expectations, in turn, may create changes in parent–child relationships so that they function on a more egalitarian foundation (Branje 2018).

Building on the idea that resistance is an expression of children's agency, Kuczynski further proposed that specific acts of resistance can be viewed as social strategies that children use in the attempt to influence parents to drop or modify their demands (Kuczynski et al. 1987; Kuczynski and Kochanska 1990). Using this framework in a research program using Canadian samples, Kuczynski et al. followed the development of

children's repertoires of resistance strategies covering the age range from 18 months to 18 years.

Observational research with toddlers (Kuczynski et al. 1987) and preschool children (Kuczynski and Kochanska 1990) indicated that young children's strategies for resisting parental requests became increasingly skillful and assertive between the ages of 18 months and five years. For example, children were less likely to ignore or directly defy parental requests and more likely to use polite refusals or engage in verbal negotiation such as offering explanations or suggesting compromises as they grew older. These findings were extended using qualitative methodologies with 9–13-year-old children (Kuczynski et al. 2019) and 13–18-year-old adolescents (Parkin and Kuczynski 2012) who reported a rich repertoire of overt and covert strategies for resisting parental expectations. Children in these studies displayed increasing social skill in negotiating and evading parental demands and an increasing willingness to challenge parental authority. For example, children reported using assertive refusals, direct defiance, and verbal and nonverbal ways of communicating their nonacceptance of parental authority when forced to comply.

The Present Study

As reviewed above, there is now substantial research documenting the development of children's strategies for expressing agency by resisting parental requests and prohibitions. However, there is little research on parental responses to resistance using the "child as agent" perspective, especially past early childhood. The purpose of the current study was to explore parents' perspectives and responses to resistance and defiance in a sample of 9–13-year-old children attending elementary school. The 9–13 age range straddles the periods of middle childhood and early adolescence and coincides with developmental changes in children's cognitive and social skills, increasing orientation to peers, and freedom of action outside the direct supervision of parents (Collins and Madsen 2003). This is also a period of increased parent–child conflict due to differences between parents' and children's expectations regarding children's exercise of autonomy and children's emotional lability associated with pubertal changes (Branje 2018; Cservenka et al. 2015; Mastrotheodoros et al. 2020). Social relational theory (SRT) informed the design and interpretation of the study. SRT is a framework for studying bidirectional processes in socialization and parent–child relationships (Kuczynski and De Mol 2015). In SRT, parents and children are both considered to be human agents who are causally connected within the constraints of a culturally embedded, interdependent, long-term, close relationship (Kuczynski and De Mol 2015). This distinctive social context influences how parents and children experience, interpret, and respond to each other and makes them both receptive and vulnerable to each other's influence (Kuczynski 2003). In the case of parents, the history of the relationship provides them with knowledge about the child's competencies, vulnerabilities, and probable reactions to their interventions. Furthermore, the anticipated future of the relationship enables parents to construct long-term socialization goals for the child, or goals to maintain or strengthen the parent–child relationship (Dawber and Kuczynski 1999).

The implication is that because of this distinctive relationship context, parents may tolerate or even promote resistant behaviors in their children that would not be contemplated with children with whom they were not in a close long-term relationship. Several general predictions can be made on using existing theory and research. Findings that parental attitudes favor autonomy over obedience (Alwin and Tufiș 2021) suggest that contemporary parents, particularly in individualistic cultures, may tolerate, if not encourage, children's opposition to their instructions under some circumstances. In addition, parents may have competing goals when confronted with resistance from children besides compliance. For example, parents may use children's resistance as a context to support children's autonomy or to guide them to develop skills for asserting themselves in an appropriate manner (Kuczynski and Hildebrandt 1997). Parents may also be receptive to their children's resistance and other requests to maintain a close mutual relationship

with their children or empower children to be confident and assertive and not afraid to ask parents questions (Kuczynski et al. 2016).

We had three main research questions: (1) We were interested in mothers' perceptions of changes in resistance since earlier in childhood. (2) We were interested in mothers' interpretations of the meaning of children's resistance, particularly, whether mothers viewed children's resistance positively or negatively. (3) We were also interested in parental responses to children's expressions of resistance or defiance to their authority.

2. Materials and Methods

The parental data were collected as part of a larger study on socialization during middle childhood that also included child participants. The criteria for recruiting families stipulated families with at least one parent and one child between the ages of 9 and 13 who were attending elementary school. The final sample consisted of 40 well-educated, English-speaking mothers who had a mean age of 44.4 years. The educational breakdown of the sample was as follows: high school (1), technical college, (8), undergraduate, (20), postgraduate (11). The employment status of mothers was as follows: 23 worked full-time, 13 worked part-time, and 4 did not work outside the home. The ethnic background of the sample was predominantly Canadian or European in origin but included several participants who identified themselves as Metis, West Indian, and African. Of the 40 children who were the focus of the interviews, 20 children were ages 9, 10, or 11 (10 males, 10 females), and 20 children were ages 12 or 13 (10 males, 10 females).

This research was a component of the Socialization in Middle Childhood Study and was approved by the university research ethics board. Families received two CAD 25 gift cards for their participation. Mothers participated with their children in their homes during three phases occurring within one week. The data were collected between 2007 and 2009. The larger study also included data from the children (see Kuczynski et al. 2019). However, the present study focuses on mothers' responses only. Phase 1 was designed to introduce parents and children to the study, build rapport, and train mothers to use the Parents Daily Report (PDR) for Phase 2 of the study. Building rapport was important because parents and children were asked to report separately, and in private, on sensitive incidents involving non-compliance and rule transgressions.

Phase 2 consisted of the PDR, a booklet of target incidents that guided parents to track and report specified incidents using a digital voice recorder for five consecutive days. The target incidents include parental requests and prohibitions (including out-of-home instructions and reminders of standing rules), children's noncooperation with parental instructions, parental knowledge of the child, and enjoyable parent–child interactions. Each page of the booklet consisted of one target incident, followed by prompts that guided the parent to describe each incident in detail. For example, there were three prompts for reporting incidents of children's noncooperation (resistance). These were: "How did it start?", "How did your child respond to your request?" and "How satisfied were you with your child's response?"

Only the reports describing children's disagreements and resistance to parental requests, rules, and prohibitions were relevant to the current study. The PDR methodology served two purposes. First, it contributed to the ecological validity of parental narratives in the Phase 3 interview (Bolger et al. 2003) by providing parents with concrete, recently occurring, contextualized experiences on which to base their responses. Second, it provided complementary data to that obtained in the final interview regarding counts and detailed descriptions of specific acts of resistance.

During Phase 3, parents participated in a 1-hour semi-structured interview that capitalized on the rapport and insights generated during the 5-day diary. The interview covered four broad topics: parental rules and expectations, children's resistance to parental requests and prohibitions, recent changes in children's resistance, behavior away from home, and parent–child intimacy. In practice, information from the digital diaries and open-ended interviews overlapped but provided complementary information, with the digital diaries

contributing to the counts and detailed descriptions of specific acts of resistance and the final interview contributing an in-depth understanding of parents' meanings and intentions regarding the events reported during the previous week and parents' views of longer-term changes in children's resistant behaviors.

Qualitative Analysis

The analyses of parental narratives took place within the theory-generating mode of research (Kuczynski and Daly 2003) using the procedures for theoretical thematic analysis described by Braun and Clarke (2006). The goal of theory-generating research is to identify, describe, and explain phenomena by the process of interpreting naturalistic data. See Kuczynski and De Mol (2015) for a discussion of theory-construction methodology as a complement to theory-testing methodology in developmental science.

The interviews and daily digital diary reports were transcribed from audio recordings. To identify themes, the researchers used Braun and Clarke's (2006) theoretical thematic analysis procedures. The steps of thematic analysis included familiarization with data through repeated reading of the transcripts, creating initial categories, searching for overarching themes, evaluating themes, and labelling and conceptualizing themes. In the present study, the initial interpretation of the data was sensitized by existing behavioral and social relational perspectives on child noncompliance and resistance. However, throughout the analyses, the researchers were alerted to novel ideas expressed by the participants that were not present in the theoretical or empirical literature. Constant comparison (Charmaz 2003) was used to continually assess the similarities and differences between coded segments and themes as well as between the emerging themes themselves.

In qualitative research, quality assurance is addressed by the criterion of trustworthiness, which is analogous to reliability in quantitative research. Stiles (1993) suggested that a trustworthy study is one where the researcher's theoretical orientation is outlined and intensively engages with the data, and discussions with other researchers confirm the findings and emerging themes during the analytical process. All three authors participated in data coding and met regularly to review the themes, discuss alternative interpretations, and ensure rigor in the constant comparison process. The first author reviewed all the coding and selected the final themes. Throughout the analyses, the researchers used the qualitative data analysis software program MAXQDA to ensure the systematic categorization of data, documentation of the analytical process in memos, and interpretive comments assigned to narratives and codes.

3. Results

The results focus on three research questions: mothers' perceptions of change in resistance, the meaning of change, and responses to children's expressions of defiance. The analyses suggest that mothers in our middle-class sample perceived that children between the ages of 9 and 13 increasingly resist parental rules and requests and defy parental authority. Moreover, parents perceived children's resistance as a normal developmental process and supported and channelled children's resistance toward socially appropriate expressions of agency. The illustrating quotes from mothers are identified by family number, sex, and age of the child to which the narrative refers. Most mothers accompanied their reports with laughter, and these expressions were preserved in the quotes.

3.1. Perceptions of Change in Assertion and Defiance

Most mothers (75%) said their children displayed increasing resistance since early childhood. Mothers who reported no recent changes in resistance said that their children had always been resistant (20%) but that the way they expressed resistance had changed in recent years. The two parents (5%) who reported that their 9- and 10-year-old sons had never intentionally said "no" to parental requests also commented about their children's developmental immaturity.

The mothers who reported changes in resistance comprised two groups: those who reported increases in direct defiance and those who reported increases in indirect resistance. About two-thirds (19) of parents who reported changes in their children's resistance characterized the change as increases in defiance, whereas the remaining parents reported that their children (at middle childhood) were more resistant but did not defiantly express resistance.

Increases in defiance. Mothers used terms such as "attitude", "backtalk", "mouthy", "lippy", "grumbling" and "saucy" when children communicated their unwillingness to comply, or that their compliance was not voluntary. Examples of verbal expressions of attitude included questioning the legitimacy of mothers' requests, complaining, defiant refusals, and rude rebuttals. Nonverbal expressions included kicking or slamming doors, displaying anger, whining, dismissive facial expressions such as eye-rolling, and vocalizations such as sucking teeth or "Pssh!"

Many mothers experienced the change as qualitatively different from how their children behaved earlier. A mother who reported instances of talking back and verbal attacks said that during the previous year, her son began to "flat out refuse" her requests. "He has come up . . . with sort of a very defiant response. Like basically, 'S please take your shoes away', 'No! {Laughter}. Well, you can't be more direct. Um, and it stuns me!" (F37, male, 9). Another described her son as being "much more attitudey, much more attitude. The whole, you know, shrug your shoulders, drag your feet, slam the door. Yeah, that's really big" (F11, male, 13). Mothers of girls reported similar examples. One mother said, "You know, she was always so compliant {Laughter} . . . And now I get 'Oh my gosh, you're repeating yourself! Are you going to say that again?'" (F1, female, 12). Another described her daughter's resistance as "Just the usual, what I would expect from kids you know—the 'Uhh! I don't want to do that', the eye rolling, the 'Oh, give me a break, not again!'" (F38, female, 11). Another said, "I think they're just more mouthy" (F33, male, 10).

Increases in indirect resistance. A third of parents (11) reported that their children's increased resistance took the form of delaying compliance or asking parents to justify their requests rather than direct defiance. "When she was younger, in a way, she did it immediately, like spontaneously. But now you have to ask, and then *maybe* she will do it" (F8, female, 12). Other parents reported that their children began to choose the timing of their cooperation. For example, a mother of a girl said, "I've noticed that we will ask them to do the dishes, and if they are younger, they want to please more and they'll do it right away. But as they get older and more independent, they will do it on their own time" (F26, female, 13). Similarly, a mother of a boy put it this way: "When he was younger it was more that he would it do it like, immediately, and now, it's like, 'I'm not so sure I want to do that. I'm not so sure I want to do that right now. I'm going to put you off. Wait a minute' (F30, male, 11)." Another said, "He won't talk back. He's not rude. He just won't do it, and he's completely and utterly immovable" (F31, male, 11).

3.2. Increasing Skill in Expressing Resistance

Mothers also talked about changes in the skill with which their children expressed resistance. Some mothers noted that their children's current displays of attitude constituted an advance over earlier temper tantrums. For example, one mother said, "Yeah, the lip now. There was no lip when she was younger. It was just that three or four temper tantrum . . . It's gone from stomping to just attitude. Change is part of the course" (F9, female, 9). Another mother said, "He would go up to his room when he was four and would slam the door and kick it from the inside and just bang and bang and bang and just refuse to stop . . . But what I am going to call the typical teenager shrug and nonchalance has probably come in the last year" (F11, male, 13). Other parents described a change from crying to more assertive forms of resistance. "When she was younger, her way of dealing with when she didn't like something was just to start crying. Now . . . she might say something like, 'Nope, I don't want to do it' or, 'Um, okay, in a minute' (F27, female, 11). Similarly, a mother described how at age three, her son responded to her requests with temper tantrums, but

now at age 10 "no longer throws himself on the floor" but instead cried, walked away, or displayed attitude (F32, male,10).

Another advance was from children's earlier strategies of blatant defiance or ignoring to their current practice of questioning instructions or offering verbal excuses. "Because when they were younger, it's like 'No!' . . . and as they get older, they sometimes turn it back on you which isn't a good thing. They'll be like 'Well, remember when you did la la la' . . . So, you can almost see them developing logic. So certainly, the way that they don't cooperate becomes different" (F7, male, 12).

In summary, most mothers reported changes in their children's expression of resistance from earlier in childhood. For most parents, the change was from an earlier period of relative cooperation and acquiescence to the increasingly intentional and direct communication of defiance. In addition, mothers reported changes in the skill with which children expressed resistance. However annoying or coercive their children's resistance was in middle childhood, their child's way of expressing resistance, including expressions of attitude, was an improvement over the way they expressed their agency earlier in childhood. One mother explained the continuity of her son's resistance over time and the discontinuity of how he expressed opposition. The mother explained: "So, yeah, of course, the behavior changes. The reaction changes, but the triggers are the same—Something is not the way that want you it to be. Right? So, it's the reaction to not getting what you want, and life is not about getting everything that you want anyways {*Laughter*}" (F32, male, 10).

3.3. Meaning of Resistance

Mothers commonly interpreted their children's increased displays of defiance as an inevitable developmental phenomenon associated with emerging motives for autonomy. Mothers used terms such as "pre-teen", "teen" and "hormones" in an assumed way of explaining their children's defiant behavior. One mother, having described her daughter's increasing displays of attitude, said, "Actually, both of my older children were around 13 or 14 and sort of snapped into this attitude. Kind of, 'I don't need to do that" (F16, female, 13). Another said, "He's a teenager and when I ask him to do something—'Yeah, what do you want?' Typical answer you know?" (F21, male, 12). Another described her son as "Flashing of that teenager sort of attitude where he knows everything and we as parents know nothing" (F7, male, 12). Some mothers used this explanation even for very young children, "I know she's changing even though she's only nine, she's changing into that teenage kind of phase with that little bit of back talk" (F40, female, 9). A mother describing her struggles with a previously cooperative daughter attributed a spectrum of behaviors including increased demands to do things her own way, increased resistance, and increased emotional lability to her daughters' developmental status: "Okay, she's a pre-teen, she's soon to be 13 and all those hormones" (F8, female, 12).

Mothers also attributed their children's resistance to an emerging autonomy motive, where old tendencies to comply voluntarily competed with impulses for self-determination and assertion of agency. "Her attitude is getting stronger. Her will is getting stronger. I can tell that she wants more decisions on her own (F 40, female, 9)." Another mother said, "I guess it's because they don't like being bossed around" (F26, female, 13). Some mothers said that they detected in their children an internal struggle between competing motives to cooperate with parents and motives to assert their own control. "It's not that she doesn't want to do it—she wants to *argue* about doing it . . . It's almost like inside her, 'I want to be helpful, but I want to show you that, almost like, I'm in charge' . . . And I don't know, maybe that's just a sense of, they're learning their own power" (F 35, female, 10).

Mothers also attributed children's resistance to intentions to test parental limits and push back parental control boundaries. "It was like, at age three, you know, when they start talking back {laughter} was when [child] and my oldest son both started, you know, really finding out where the boundaries are" (F29, male 9). Other mothers said, "I think she's just trying to see how far she can go" (F38, female, 11) and "Maybe he's testing us, maybe . . . just wants to rebel a little bit" (F20, male, 13). Another said, "I think it's a natural

development in a child. I think it's the newfound freedom of being a step older and a step further in life that they just need to check their boundaries" (F37, male, 9).

3.4. Qualified Support for Children's Resistance

Almost all mothers (90%) indicated that they supported their children's expression of agency through resistance. However, their support tended to be both ambivalent and conditional. Mothers believed that assertiveness was desirable for children but annoying for themselves as parents. As well, more than half of the sample said that they supported or tolerated their children's resistance only if they did so in a skillful manner. Only two parents indicated that they did not tolerate resistance or defiance. As an example, one mother who described herself as having strict and distant parents when she was young reported that she slapped her daughter for talking back. "Because, she has a real attitude. It just scares me, you know, I mean she's a good kid, don't get me wrong, I'm just scared that she will rebel. That's every parent's nightmare" (F3, female, 11).

Some parents clearly articulated their support for their children's resistance: "She is a lot more vocal about how she feels. She's a lot more disagreeable and, surprisingly, I'm okay with that" (F1, female 12). Another referred to the motive to resist as an existential prerogative of human agents: "That comes with the turf, they want to know what their boundaries are and how much they can push, and I expect them to push the envelope. They are thinking human beings and I think we welcome that, but there is a time when you ask and a time when not to ask" (F16, female 13).

Some mothers described their dilemma of wanting to empower their children by tolerating or supporting their children's resistance but nevertheless wishing for voluntary acquiescence. For example, one mother said, "I guess I don't really have a problem with kids standing up for themselves . . . I think it's good that a child feels comfortable to say that 'I don't want to do this. Or that he's not afraid . . . I think it's good for kids to challenge and to push things a little bit because it would be bad if he didn't. Because he's going to have to learn, and I don't want them to be pushovers. Obviously, I don't want them to argue, I know I'd be great if he'd say, 'OK mom!' but, like I know that would be wrong, because I think that's only normal "(F13, male, 11).

Another mother said that she wanted her son to rebel now, so he won't have to do it in his 20s when rebellion is more dangerous. However, she said she was happy that the child began showing resistance at age 13 rather than earlier at age 10 and that she wanted her child to be only moderately rebellious: "We want a little rebellion. But I guess, you know, we don't control them a whole lot. Maybe they won't have to rebel so much" (F20, male 13).

Parents also said that children's resistance allows them to practice skills of independence and assertion that would empower children in their future lives: "I don't want her to be a doormat, I don't want her to do everything I say without having a thought, but I want her to be fair in her resistance" (F9, female 9). Another said, "It's really important that she does establish a feeling of independence . . . she needs to be able to make her own decisions and not second guess what we're going to think about her decisions" (F18, female, 13).

One mother discussed her different concerns about her two daughters, one described as defiant, and the other, compliant: "[Child] is the type who will always stand up for herself, [child] is not going to let anyone walk over her, where my other daughter, as I said before, she is the pleaser, right, to keep the peace. [Child] might piss some people off, but she might be better for it because she doesn't let them walk all over her" (F15, female, 11).

Another mother said she tolerated her daughters' sometimes "brutal" defiance to empower her for her future life: "One, because I want her to get it out of her system now, and the other thing, too, is that I believe that if she could stand up to me then maybe she could stand up to some of her friends once she gets into high school. So, some days I'm actually glad she talks back—as long as she does it appropriately" (F1 female, 12).

Mothers identified several aspects of skillful resistance that they wished to foster in their children. These included verbal negotiation, acknowledging parental requests, and

respectful forms of assertion. Verbal negotiation, which consisted of providing explanations, asking for explanations, and bargaining, was regarded as the most skillful form of resistance. One mother said approvingly, "I like that he was able to, even though he didn't agree with what I was making him do, I was happy that he chose to negotiate for a compromise as opposed to just getting angry and giving attitude or refusing to do it or something. So . . . I'd much rather that type of response" (F7, male, 12). Another mother shared, "Yeah, it is more communication, you know? If, say 'mom I am in the middle of whatever,' okay, well either I can get it myself, or I can say I'm sorry I need you to do it. But the give and take and the communication is more to me the better solution than to just shrug and say 'Okay, well, yeah, maybe'" (F11, male, 13).

Another mother described her efforts to teach her son the skills of conflict management:

"I was also trying to explain to him some of the techniques to use while having a discussion so that people don't get defensive and get their back up and how that can work against you when you're trying to work things out because it's not reasonable to expect that you're going to get 100% of what you want". (F22, male, 13)

Another parent encouraged her son to construct skillful arguments for resisting parental requests:

"He, J, is getting to that point where he will argue back, and like I said, we've sort of encouraged him to use that. 'Okay, you want it your way. Explain to me why with a persuasive argument of why because you know we can give you ours. Let's hear what you have to say, and we'll see.' He still usually doesn't win because he usually can't get it together well enough. And you know what? It works the same way with anybody in a job and if you can't explain yourself fully, you're not gonna make your point well". (F24, male, 13)

Another mother said she encouraged her daughter to explain her position rather than just refuse or ignore requests. "I've been trying to say that 'Use your words to tell me what it is that don't like about it or, you know, maybe we could come to some kind of {*laughter*} common ground together" (F27, female, 11).

Parents were most firm in correcting children's verbal and nonverbal displays of attitude. Although parents believed that attitude and defiance are associated with autonomy development, this way of expressing resistance was not acceptable. For some parents, attitude needed to be absolutely discouraged because it violated core values that the parent wished to foster: "The no violence, the no swearing, the no disrespect with attitude are the core, everything other than that is fair game for re-negotiation" (F9, female, 9). Another said "Oh, we just say 'No' {*laughter*}. Yeah, you just think 'Oh no you are not going to talk to me that way!' because I know if you don't nip it now at nine . . . good Lord knows what coming at me when she's 13 . . . And if you can't be respectful to your parents, who are you going to be respectful to?" (F9, female 9).

"He's got to obey us and respect his adult, adults in his life. That he's not to talk back . . . that's a pretty firm rule I would think . . . Otherwise, he's perfect {*laughter*}". (F29 male, 9)

Mothers also said that they confronted both nonverbal and verbal aspects of their children's displays of attitude:

"I just can't stand when they're really disrespectful. We'll allow certain latitude in terms of joking around, but if you're just being rude and disrespectful, like 'If I'm speaking to you, look at me, give me the courtesy of pausing your game, give me your attention so we can just talk about it instead of me having to repeat myself'. And, you know, talking back and stuff, it's just . . . you have those certain trigger things that drive you crazy, and you also want to teach them some social graces and everything too" (F7, male, 12).

Similarly, another mother said "But it depends on how he expresses it. If he goes 'Waaaah!, I don't want to!' No, that's illegitimate . . . I don't stand that type of behavior.

You tell me normal voice. You tell me what you don't like. I'll explain to you what I feel about it. Or I'll explain why I'm insisting on this. Um, um . . . when he goes and shuts down and starts you know just showing his temper then I also resent that" (F32, male, 10).

In summary, all parents said that the right to express resistance was conditional and involved a process of parental guidance and mutual adjustment between the parent and child. Some parents looked forward to this process as a positive challenge that they approached in a game-like manner: "Learning your own independence . . . that whole growing up. 'Why are you telling me what to do?' 'Because you live here {laughter}, because I feed you.' Yeah, it comes from growing up and learning that you do have a say, that you do have a right to question authority. And sure! Feel free! {*laughter*}. Bring it on! But I'm gonna put you back down!" (F24, male, 13). Another mother said she sometimes "got a kick" out of watching her son negotiating out of her requests: "I want to see the mental gymnastics that he's going through to see what the thought process was to arrive at that" (F22, male 13). Others approached children's challenge to their authority with ambivalence: "Uh I really struggle with that attitude and try to say and try to point things out and be logical . . . So, I find that tough because, you know, in your head you're going 'They have no idea what they're talking about!' And the whole attitude with which they deliver their knowledge about whatever the topic is, is quite annoying. But, you know, on the other hand I do realize that he has to learn on his own and make his own mistakes" (F7, male, 12).

4. Discussion

Contemporary parents tend to have childrearing values that favor autonomy over obedience, and this represents a continuation of social change in values and norms occurring during the previous century (Alwin and Tufiș 2021). The present study makes empirical and theoretical contributions to understanding how such values affect family dynamics and parent–child relationships during the 21st century. Empirically, the study contributes several insights into parents' perceptions and management of resistant and defiant behaviors of their school-age children. Theoretically, the study highlights the advantages of viewing children's resistance as a form of agency expression and adds a neglected relational perspective to conceptions of parental support for autonomy.

Mothers' descriptions of the various strategies their children used to evade their requests align with those reported by children from the same families (Kuczynski et al. 2019). Mothers' reports of defiance, arguing, negotiation, displays of attitude, and ignoring or deflecting parental requests closely corresponded to children's reports of their own overt strategies. What was different was that children also reported subversive strategies such as minimal compliance (e.g., following the letter but not the spirit of mothers' instructions), covert transgressions occurring out of the parents' sight, and internal resistance where children complied overtly but emotionally and cognitively rejected the parents' messages (Kuczynski et al. 2019). Although mothers in this study could not report these hidden forms of resistance, their frequent references to children's motives and internal dialogues indicate an awareness of opposition occurring beneath the surface.

The finding that mothers perceived that children's resistance and defiance are a manifestation of children's developing autonomy or assertion of agency is important conceptually because it adds complexity to a dominant psychological perspective that views resistance exclusively from the pathologizing lens of "noncompliance" (McMahon and Forehand 2003; Patterson et al. 1992). Although mothers experienced their children's increased resistance as aversive, they interpreted their opposition as a symptom of a normal developmental process. The finding of increased defiance clarifies that one of the processes underlying parent–child conflict in middle childhood and early adolescence is, specifically, children's resistance to parental control. Although the phenomenon of increased conflict between parents and children during early adolescence is well established (Branje 2018; Laursen et al. 1998; Mastrotheodoros et al. 2020), the underlying processes have been obscured by the use of the more general term "conflict." A specific focus on the process

of resistance enables researchers to link parent–child conflict in adolescence with similar phenomena known as the "terrible twos" and toddler resistance in early childhood and as assertion (Potter and Potter 2016), reactance (Brehm and Brehm 1981), or resistance to oppression (Kent 2012; Scott 1990) in adulthood. We suggest that the emergence of resistance and defiance of authority in middle childhood is part of a continuous process of autonomy development and expression of human agency extending into adulthood.

The identification of social skills in expressing resistance as a central concern of parents is also a novel contribution of this study. We argue that by middle childhood, what parents object to is not so much their children's resistance but the way they express their resistance. This provides evidence for a proposal first made in research on toddler resistance, namely, that children's repertoires for communicating "*no*" develops along two orthogonal trajectories: increasing assertiveness and increasing social skill (Kuczynski et al. 1987; Kuczynski and Kochanska 1990). In this study, parents identified changes both in their children's assertion of autonomy and the skill with which children defended their autonomy. Mothers appeared to welcome resistance, albeit with ambivalence, as an inevitable sign of growing maturity, but they did not tolerate their children's direct, aversive, or socially unaccommodating way of asserting their opposition. These findings are consistent with research indicating that parents of toddlers react more punitively when children display oppositional and defiant tactics but are more likely to use positive tactics when children resist using verbal negotiation (Larzelere et al. 2018). Similarly, parents of adolescents perceive strategies such as simple assertion, explanation, and negotiation as acceptable and legitimate expressions of children's autonomy in adolescence (Morrissey and Gondoli 2012).

Parents' joint focus on supporting autonomy and promoting social skills has a larger theoretical implication. The idea that parents were interested in promoting socially skillful forms of resistance suggests that parents wished to promote a relational rather than an individualistic mode of autonomy expression in their children. According to social relational theory, individuals can develop relationally connected versus relationally isolated modes of expressing agency (Kuczynski and De Mol 2015; De Mol et al. 2018). Children who develop as connected agents enact their agency within the context of interdependent social relationships, which enables and constrains their actions as agents. In contrast, children who develop as isolated agents, which can be considered an extreme form of individualism, experience themselves and act without relying on or considering others. We argue that mothers' focus on respectful and socially skillful forms of assertion suggests that they had an implicit goal of fostering a relational or connected autonomy in their children.

Implications for Parenting in the 21st Century

The parents in this study represent middle-class families exposed to prevailing 21st-century values favoring children's autonomy. We suggest that one way that this social change in values has played out is that contemporary parents look beyond the short-term annoyance of their children's resistance and defiance and tolerate these behaviors as actions of agents in order to promote long-term goals for their children. One of these goals was to foster in their children the skills of competent adults who competently assert their own wishes and resist harmful or unquestioning submission to the influence of others. Mothers of both girls and boys expressed concerns about behavior that seemed overly compliant or expressed hopes that their children would not become "pushovers" or "doormats" in their future lives.

For these families, parents' supportive yet ambivalent responses to children's resistance reflect contemporary values for autonomy, assertion, and egalitarian parent–child relationships that are likely culturally and historically specific. The reality is that children in this sample could practice their agency in a protected parent–child relationship context that affords leeway for the child to resist parental authority. However, strict obedience and hierarchical parent–child relationships remain ideal in collectivistic cultures, where

parental responses are likely to be harsher and less tolerant of children's resistance (Burke and Kuczynski 2018).

We also highlight two directions for research on parenting in the 21st century. First, we suggest expanding the kinds of practices that constitute autonomy-supportive parenting. Existing conceptions of autonomy support stem from self-determination theory and focus on parental practices that foster intrinsic motivation by enabling children to perceive themselves as determining their own actions and outcomes (Grolnick 2003). Examples of autonomy support include valuing autonomy over obedience, using techniques such as explaining requests with reasons rather than using coercive power, and allowing choices rather than imposing parental agendas (Grolnick and Ryan 1989). An implication of the present findings is that tolerating and supporting a degree of opposition from children may also constitute a form of autonomy support. This form of autonomy support is not permissive because parents were firm in demanding that children assert themselves in a socially skillful manner. Parental acquiescence to children's resistance (Kochanska and Kuczynski 1991) and, more generally, parental receptivity to children's requests (Kuczynski et al. 2016) may support children's developing autonomy by providing them with experiences of successfully influencing their parents. A history of such interactions may contribute to a sense of relational efficacy, knowing that one can influence significant others in a relationship (De Mol et al. 2018).

The second implication is that developers of parenting interventions should consider redirecting parental efforts from an exclusive focus on suppressing noncompliance to improving the skill with which children express their opposition. In the present study, parents firmly opposed unskillful expressions such as angry defiance, sullenness, or unassertive expressions of nonacceptance of parental communications. Instead, parents discussed many approaches to guiding children to express resistance in an assertive but socially competent manner. These included respectful forms of communication, acknowledging that the other's request has been heard, providing logical explanations, and negotiating compromises. In addition, parents coached children to consider others' perspectives and appraise situations to determine when to stand firm and when to relent.

5. Limitations

The present sample of well-educated Canadian mothers constitutes a limitation of this study. Because the participants' socioeconomic status and cultural diversity were restricted, it must be considered that middle-class families' experiences and parent–child interactions might differ from the general population within that culture. Additionally, as representatives of Western culture, their experiences and expectations may differ from families in collectivistic cultures that expect reverence for adults and obedience to their rules and expectations (Trommsdorff and Kornadt 2003).

The qualitative methodology of this study is both a strength and a limitation. A holistic approach to methodology in developmental science involves not only the process of testing theories and hypotheses, which is a domain of quantitative and experimental methods, but also the process of theory construction and hypothesis generation, which typically relies on naturalistic and interpretive methods (Kuczynski and De Mol 2015; Overton 2002; Valsiner 2000). As such, the present study identified neglected phenomena regarding the nature of mothers' responses to children's resistance. A limitation is that qualitative methods do not adequately fulfill the theory testing phase of the research process. Although it is hoped that this study may lead to the construction of new measures and the testing of new hypotheses, this requires replication in different and larger samples, and the attendant tools of operationalization of constructs, reliability testing, and statistical analyses.

6. Final Conclusions

In conclusion, our paper suggests that children's expression of resistance and defiance in 21st-century families should not be considered a form of deviance or the action of isolated or disconnected agents. Rather, children's resistance occurred in the context of supportive

parent–child relationships where mothers allowed their children to exercise some degree of self-determination. Allowing self-determination during interactions involving resistance does not mean parents were responding permissively or abandoning rules, structures, and expectations. On the contrary, mothers' impulses to allow resistance were intended to provide the opportunity for children to develop social skills and self-confidence, and make decisions about their own actions through practice and their mothers' guidance for appropriate responses.

Mothers also appeared to be more concerned about the health of their relational connections than strict adherence to rules and commands. When taken together with an earlier study (Kuczynski et al. 2019) that examined children's perspectives on the interactions reported here, the study indicated tcontemporary children's comfort in overtly resisting their mothers' rules and requests. This also suggests a level of trust and a knowing that their autonomy was not under threat within the confines of the relationship.

Author Contributions: L.K. acquired funding, conceptualized the study, participated in formal analysis of data, supervised research assistants, wrote original draft. T.B. participated in analysis and revision of the data through all the steps in the analysis process using MAXQDA software. She wrote part of the discussion section and reviewed and edited the final version of the manuscript. P.S.-C. participated in the transcription of interviews and the coding and analysis of data using MAXQDA software. She reviewed and edited the final version of the manuscript. All authors have read and agreed to the published version of the manuscript.

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Research Ethics Board of the University of Guelph (protocol #06FE028) on 3 June 2006.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data supporting reported results can found in the form of MAXQDA files in the possession of the first author. The data are part of the larger Socialization in Middle Childhood study that continues to be analyzed for future publication. Contact Leon Kuczynski, Emeritus, at lkuczyns@uoguelph.ca.

Conflicts of Interest: The authors declare no conflict of interest.

References

Alwin, Duane. 1988. From obedience to autonomy: Changes in traits desired in children, 1924–1978. *Public Opinion Quarterly* 52: 33–52. [CrossRef]

Alwin, Duane F., and Paula A. Tufiș. 2021. Class and Conformity: Thirty Years of Adult Child-rearing Values in the U.S. *Social Forum* 36: 315–37. [CrossRef]

Baumrind, Diana. 2012. Differentiating between confrontive and coercive kinds of parental power-assertive disciplinary practices. *Human Development* 55: 35–51. [CrossRef]

Bolger, Niall, Angelina Davis, and Eshkol Rafaeli. 2003. Diary methods: Capturing life as it is lived. *Annual Review of Psychology* 54: 579–616. [CrossRef]

Branje, Susan J. T. 2018. Development of parent–adolescent relationships: Conflict interactions as a mechanism of change. *Child Development Perspectives* 12: 171–76. [CrossRef]

Braun, Virginia, and Victoria Clarke. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology* 3: 77–101. [CrossRef]

Brehm, Sharon S., and Jack W. Brehm. 1981. *Psychological Reactance: A Theory of Freedom and Control*. London: Academic Press.

Burke, Taniesha, and Leon Kuczynski. 2018. Jamaican mothers' perceptions of children's resistance strategies for parental rules and requests. *Frontiers in Psychology* 9: 1786. [CrossRef] [PubMed]

Charmaz, Kathy. 2003. Grounded theory. In *Qualitative Psychology: A Practical Guide to Research Methods*. Edited by Jai A. Smith. New York: Sage Publications, Inc., pp. 81–110.

Collins, W. Andrew, and Stephanie D. Madsen. 2003. Developmental change in parenting interactions. In *Handbook of Dynamics in Parent-Child Relations*. Edited by Leon Kuczynski. Thousand Oaks: Sage, pp. 49–66.

Cservenka, Anita, Madison L. Stroup, Amit Etkin, and Bonnie J. Nagel. 2015. The effects of age, sex, and hormones on emotional conflict-related brain response during adolescence. *Brain and Cognition* 99: 135–50. [CrossRef] [PubMed]

Dawber, Tess, and Leon Kuczynski. 1999. The question of ownness: Influence of relationship context on parental socialization strategies. *Journal of Social and Personal Relationships* 16: 475–93.

De Mol, Jan, Ellen Reijmers, Lesley Verhofstadt, and Leon Kuczynski. 2018. Reconstructing a sense of relational agency in family therapy. *Australian & New Zealand Journal of Family Therapy* 39: 54–66.

Greven, Philip. 1990. *Spare the Child: The Religious Roots of Punishment and the Psychological Impact of Physical Abuse*. Washington, DC: Alfred A. Knopf.

Grolnick, Wendy S. 2003. *The Psychology of Parental Control: How Well-Meant Parenting Backfires*. Mahwah: Lawrence Erl-baum Associates.

Grolnick, Wendy S., and Richard M. Ryan. 1989. Parent styles associated with children's self-regulation and competence in school. *Journal of Educational Psychology* 81: 143–54. [CrossRef]

Kent, Alexandra. 2012. Compliance, resistance and incipient compliance when responding to directives. *Discourse Studies* 14: 711–30. [CrossRef]

Kochanska, Grazyna, and Leon Kuczynski. 1991. Maternal autonomy granting: Predictors of normal and depressed mothers' compliance with the requests of 5-year old's. *Child Development* 62: 1449–59. [CrossRef] [PubMed]

Kuczynski, Leon. 2003. Beyond bidirectionality: Bilateral conceptual frameworks for understanding dynamics in parent- child relations. In *Handbook of Dynamics in Parent Child Relationships*. Edited by Leon Kuczynski. Thousand Oaks: Sage, pp. 1–24.

Kuczynski, Leon, and Grazyna Kochanska. 1990. The development of children's noncompliance strategies from toddlerhood to age 5. *Developmental Psychology* 26: 398–408. [CrossRef]

Kuczynski, Leon, and Jan De Mol. 2015. Dialectical models of socialization. In *Handbook of Child Psychology and Developmental Science: Theory and Method*. Edited by Willis F. Overton, Peter Molenaar and Richard M. Lerner. Hoboken: John Wiley & Sons, Inc., pp. 323–68. [CrossRef]

Kuczynski, Leon, and Kerry Daly. 2003. Qualitative methods as inductive (theory generating) research: Psychological and sociological approaches. In *Handbook of Dynamics in Parent-Child Relations*. Edited by Leon Kuczynski. Thousand Oaks: Sage, pp. 373–92.

Kuczynski, Leon, and Neil Hildebrandt. 1997. Models of conformity and resistance in socialization theory. In *Parenting and the Internalization of Values: A Handbook of Contemporary Theory*. Edited by Joan E. Grusec and Leon Ed Kuczynski. New York: Wiley, pp. 227–56.

Kuczynski, Leon, Grazyna Kochanska, Marian Radke-Yarrow, and Ona Girnius-Brown. 1987. A developmental interpretation of young children's noncompliance. *Developmental Psychology* 23: 799–806. [CrossRef]

Kuczynski, Leon, Robyn Pitman, and Kate Twigger. 2019. Flirting with resistance: Children's expression of autonomy in middle childhood. *International Journal of Qualitative Studies on Health and Well Being* 13: 1564519. [CrossRef]

Kuczynski, Leon, Robyn Pitman, Loan Ta-Young, and Lori Harach. 2016. Children's Influence on parents' adult development: Mothers' and fathers' receptivity to children's requests for change. *Journal of Adult Development* 23: 193–203. [CrossRef]

Larzelere, Robert E., Sada J. Knowles, Carolyn S. Henry, and Kathy L. Ritchie. 2018. Immediate and long-term effectiveness of disciplinary tactics by type of toddler noncompliance. *Parenting: Science & Practice* 18: 141–71. [CrossRef]

Laursen, Brett, Katherine C. Coy, and W. Andrew Collins. 1998. Reconsidering changes in parent–child conflict across adolescence: A meta-analysis. *Child Development* 69: 817–32. [CrossRef]

Mastrotheodoros, Stefanos, Jolien Van der Graaff, Maja Deković, Wim H. J. Meeus, and Susan Branje. 2020. Parent–adolescent conflict across adolescence: Trajectories of informant discrepancies and associations with personality types. *Journal of Youth and Adolescence* 49: 119–35. [CrossRef] [PubMed]

McMahon, Robert J., and Rex L. Forehand. 2003. *Helping the Noncompliant Child*. NewYork: Guilford Books.

Miller, Alice. 1990. *For Your Own Good, Hidden Cruelty in Child-Rearing and the Roots of Violence*. New York: Noonday Press.

Morrissey, Rebecca A., and Dawn M. Gondoli. 2012. Change in parenting democracy during the transition to adolescence: The roles of young adolescents' noncompliance and mothers' perceived influence. *Parenting: Science and Practice* 12: 57–73. [CrossRef] [PubMed]

Overton, Willis F. 2002. Understanding, explanation, and reductionism: Finding a cure for cartesian anxiety. In *Reductionism.* Edited by Terrance Brown and Leslie Smith. Mahwah: Erlbaum, pp. 29–51.

Parkin, C. Melanie, and Leon Kuczynski. 2012. Adolescent perspectives on rules and resistance within the parent-child relationship. *Journal of Adolescent Research* 27: 555–80. [CrossRef]

Patterson, G. R., J. Reid, and T. J. Dishion. 1992. *Antisocial Boys: A Social Interactional Approach*. Eugene: Castalia Press.

Potter, James V., and Paula M. Potter. 2016. *The Road to Individuation & Autonomy: An Assertiveness Training Manual*. Redding: CreateSpace Independent Publishing Platform.

Scott, James. 1990. *Domination and the Arts of Resistance: Hidden Transcripts*. New Haven: Yale University Press.

Stiles, William B. 1993. Quality control in qualitative research. *Clinical Psychology Review* 13: 593–618. [CrossRef]

Tamis-LeMonda, Catherine S., Niobe Way, Diane Hughes, Hirokazu Yoshikawa, Ronit Kahana Kalman, and Erika Y. Niwa. 2008. Parents' goals for children: The dynamic coexistence of individualism and collectivism in cultures and individuals. *Social Development* 17: 183–209. [CrossRef]

Trommsdorff, Gisela, and Hans-Joachim Kornadt. 2003. Parent-child relations in cross-cultural perspective. In *Handbook of Dynamics in Parent-Child Relations*. Edited by Leon Kuczynski. Thousand Oaks: Sage, pp. 271–306.

Valsiner, Jaan. 2000. *Culture and Human Development*. Thousand Oaks: Sage.

Van Petegem, Stijn, Bart Soenens, Maarten Vansteenkiste, and Wim Beyers. 2015. Rebels with a cause? Adolescent defiance from the perspective of reactance theory and self-determination theory. *Child Development* 86: 903–18. [CrossRef]

Wenar, Charles. 1982. On negativism. *Human Development* 25: 1–23. [CrossRef] [PubMed]

Article

A Longitudinal Examination of Perceived Parent Behavior and Positive Youth Development: Child-Driven Effects

Goda Kaniušonytė [1,*], **Mary Page Leggett-James** [2] **and Brett Laursen** [2]

1   Institute of Psychology, Mykolas Romeris University, LT-08303 Vilnius, Lithuania
2   Department of Psychology, Florida Atlantic University, Boca Raton, FL 33314, USA;
     marypagejames@gmail.com (M.P.L.-J.); laursen@fau.edu (B.L.)
*   Correspondence: godakan@mruni.eu

Abstract: The advent of the 21st Century brought a new interest in promoting Positive Youth Development and a renewed emphasis on understanding transactional relations between parenting and adolescent development. The present study examined conventional parent-driven pathways, which describe the putative role of parents in the formation of positive characteristics in children, as well as the prospect of child-driven effects, which describe how parents respond to evidence of Positive Youth Development by potentially increasing support and reducing psychological control. We tested these pathways in a sample of 458 Lithuanian adolescents (52.2% girls; M = 15.14 years old at the outset) who completed surveys assaying perceptions of parent behaviors and self-reports of positive development (character, competence, connection, caring, and confidence) at annual intervals from ages 15–18. Across most lags, children's perceptions of parenting changed in response to their own positive development with increased support and decreased psychological control. In contrast, there were no longitudinal associations from perceptions of parenting to subsequent Positive Youth Development. The results offer insight into parenting in the 21st Century, a time when youth are increasingly encouraged/required to acquire volunteer experiences designed to promote positive development. To the extent that these experiences are successful, one unexpected offshoot may be better relationships with parents.

Keywords: adolescents; Positive Youth Development; parental support; psychological control; bidirectional effects

1. Introduction

In the 21st Century, youth are increasingly viewed not as problems to be solved, but as resources to be fostered (Lerner et al. 2005). This shift and the dynamic developmental systems-based ideas that undergird it afford an optimistic view about the ways that parents can promote Positive Youth Development in ways that constructively contribute to the neighborhood, community, and society. Conventional wisdom holds that parents shape the development of positive attributes in their adolescent children. Parent-driven effects have a long and influential history in the literature on parenting and parenting styles (Power 2013). The field of Positive Youth Development is no exception; many studies endorse the view that parents are an important source of influence over the acquisition of adaptive attributes (e.g., Bebiroglu et al. 2013; Bowers et al. 2014). Yet, for much of this time, scholars have warned of the dangers of focusing solely on parents as socialization agents, arguing that just as children react to parents, many parent behaviors are also reactive, arising in response to child attributes and behaviors (e.g., Pettit and Arsiwalla 2008). Child-driven models hold that children influence parents—in their own right—resulting in a transactional, cross-lagged, longitudinal feedback loop wherein children influence and are influenced by parents. Transactional models are ascendant in 21st Century scholarship on parenting and adolescent development (Overton 2015), but they are not well represented in empirical studies that assess Positive Youth Development as originally defined by the Five Cs of

character, competence, connection, caring, and confidence (Lerner et al. 2005). The present study examines mutually influential associations between adolescent positive development and perceptions of parenting behaviors across four consecutive years spanning the end of secondary school.

1.1. 21st Century Models of Adolescent Development: A Focus on the Positive

A major shift in our understanding of optimal adolescent development occurred early in the 21st Century, as scholars sought alternatives to models that emphasized the acquisition of problem behaviors. Mid- and late-20th Century models defined optimal developmental outcomes as the absence of undesirable behaviors, prompting policy makers and practitioners to create programs to reduce the frequency of adjustment problems such as mental health challenges, suicide, teenage pregnancy, substance and alcohol abuse, and delinquency. Although laudatory in their goals and outcomes, this view inadvertently characterized adolescence as a period full of problems to be fixed, instead of opportunities waiting to be fulfilled. Paradoxically, an emphasis on adolescence as a period of normative disturbance may have inadvertently created a self-fulfilling prophecy for some (Lerner et al. 2006). The term "Positive Youth Development" emerged in response, to emphasize the promise of youth and to capture the opportunities available to those in this age period (Lerner et al. 2005).

Positive Youth Development is a strengths-based model built on the assumption that all adolescents possess the potential for healthy, successful development (Lerner 2021). It is defined through the psychological, behavioral, and social characteristics known as the Five Cs (competence, confidence, connection, character, and caring). The model recognizes the importance of connectivity between the individual and the environment, also known as person ⇔ context coactions, the most important of which is captured in close, interpersonal relationships (Lerner et al. 2015). The main premise of the Five Cs of the Positive Youth Development model is that youth will thrive when their strengths align with key resources, such as positive and sustained relations with caring adults, life-skill-building experiences, and opportunities to participate and take leadership in family, school, and community activities (Lerner 2021).

Fast-forwarding to the 21st Century, increasingly, youth are viewed in terms of their potential for positive development. Every adolescent has a unique set of strengths that can be harnessed for the benefit of themselves, their interpersonal relationships, and their community (e.g., Bornstein 2003; Flanagan and Faison 2001). Youth with specific interests and talents are encouraged to channel them in ways that constructively afford skill development and encourage engagement with family members and the community. Children and adolescents who participate in school clubs and other structured activities report greater involvement in community groups and closer parent–child relationships, compared with those who are not similarly engaged (Moore and Glei 1995). Thus, adolescent participation in structured Positive Youth Development activities yields benefits for the community and the family. Parents are assumed to play an important role in successful youth development by fostering a sense of belongingness and meaningfulness and by promoting the development of self-regulation skills connected to competence (Lewin-Bizan et al. 2010). Positive youth characteristics, in turn, are believed to promote successful interpersonal relationships, including those between parents and children.

Volunteerism is a prominent example of the emphasis on promoting positive development. In recent years, there has been a push for children and adolescents to be involved in community activities. Accompanying the shift away from programs focused on reducing negative behaviors, practitioners and policy makers have turned to civic engagement as a means of promoting Positive Youth Development (Lerner et al. 2003). These commitments stem from the belief that competence, confidence, connection, character, and caring all flow from community engagement. Secondary education continues to highlight the importance of volunteerism because high-quality volunteering opportunities foster civic engagement in high school students, which promotes positive attitudes among youth and later civic

engagement in adulthood (Gallant et al. 2010; Lerner 2004). Much less attention has been given to understanding how parenting and parent–child relations can similarly promote Positive Youth Development.

1.2. 21st Century Models of Parent–Child Relationships: A Focus on Transactions

The outset of the 21st Century also marked a renewed emphasis on conceptual models that emphasize mutual parent–child influence. To be sure, transactional models have long been discussed in the field (Bell 1968; Sameroff 1975). However, applications to relationships during adolescence are a recent development (Laursen and Collins 2009). Transactional models posit a longitudinal, mutually reciprocal interplay between parent and child behavior, characterized by bidirectional influence processes (Sameroff and Mackenzie 2003). The model does not start with one partner or the other, but recognizes that parents act on and react to child behavior and that children act on and react to parent behavior, which produce reciprocal influence pathways. It is important to note that although transactions are often depicted in terms of the same variables (e.g., negativity on the part of one partner elicits negativity from the other), reciprocal interconnections can and do exist between different variables. Herein, we operationalize transactional processes in terms of longitudinal cross-lagged effects, recognizing that other scholars have other strategies for representing these processes.

One notable transactional model that emphasizes Positive Youth Development is the dynamic relational developmental systems metatheory, which holds that development is a reflection of interpersonal contexts and the interactions that take place within them (Overton 2015). In this system-based perspective, development is conceived of as a dynamic process, wherein the individual is in a constant state of becoming (moving "from potential to actuality"). Multiple interpersonal contexts shape this developmental process, key among them during the first two decades of life being relationships with parents. The process is neither static, nor unidirectional. The individual alters the developmental context, but the context places important constraints on patterns of development; together, they form a bidirectional, dynamic system capable of optimizing the realization of individual potential.

We focused on two forms of constructive parenting (as reported by adolescents). Expressions of support encompasses nurturing behaviors that convey emotional warmth and psychological acceptance and reassuring behaviors that encourage individuation and autonomous action (Barber et al. 2005). Support is assumed to bolster self-worth and achievement while protecting against adjustment difficulties. Constructive parents support autonomy development by offering choices, providing explanations for requests, and validating feelings and views. Supportive parenting also promotes self-regulation, with concomitant benefits to psychosocial adjustment (e.g., Lewin-Bizan et al. 2010; Steinberg et al. 1989), which are presumably a product of the provision of informational and instrumental resources, communication, and emotional validation.

The avoidance of psychological control entails respect for and refraining from behaviors that intrude on the child's psychological world (Soenens and Vansteenkiste 2010). Constructive parents avoid guilt induction and love withdrawal, behaviors designed to constrain, invalidate, and emotionally manipulate the child to feel, think, and behave as the parent wishes (Barber 1996). The avoidance of psychological control is particularly important during the adolescent years because parents who refrain from discouraging child initiatives are implicitly granting opportunities to make independent decisions, thus fostering a sense of autonomy (Hare et al. 2014). The presence of psychological control is known to be associated with a host of adjustment difficulties (e.g., Kaniušonytė and Laursen 2021; Pettit et al. 2001). On the other side, adolescents with parents who refrain from psychological control have better decision-making skills and higher self-esteem than those with controlling parents (Luyckx et al. 2007; Silk et al. 2003), presumably because there are no family-imposed psychological barriers to the optimal realization of potential in these domains.

Scholars differ as to the relative advantages of parent and child reports of parenting. The use of child report measures may inflate shared variance with self-reports of adjustment symptoms, although findings suggest that there is enough overlap in perceptions of overt behaviors that the resulting associations are not unduly influenced by shared reporter variance (Valdes et al. 2016). Moreover, parent reports of family interactions are not especially accurate; child reports have greater convergence with observer reports than do those of parents (Gonzales et al. 1996). Finally, when it comes to understanding the mechanisms whereby parent behaviors drive child outcomes, it may well be the case that child perceptions are better indicators of child outcomes than are parent perceptions because it is the child's interpretation of events and behaviors that dictate adjustment outcomes (Stattin and Kerr 2000). Therefore, in the present study, we used child reports of parenting, mindful of the limitations described above.

1.3. Research on Transactional Models of Parent–Adolescent Relationships and Positive Youth Development

Although several longitudinal studies have documented longitudinal, cross-lagged transactional associations between parenting and adolescent behavior problems (e.g., Gorostiaga et al. 2019; Huey et al. 2020), to our knowledge, there are no comparable studies of Positive Youth Development operationalized in terms of the Five Cs. Below, we summarize the literature, starting with a brief overview of concurrent research on correlated associations between parenting and Positive Youth Development components (Five Cs), followed by longitudinal research that focuses exclusively on parent-driven effects. No longitudinal studies could be identified describing child-driven effects of Positive Youth Development on parenting behaviors.

Concurrent correlational studies describe associations between parenting and Positive Youth Development. Parenting style (Kiadarbandsari et al. 2016), perceived parental school involvement, and perceived parental monitoring and warmth are associated with Positive Youth Development (Bowers et al. 2014). Longitudinal studies report similar parent-driven effects. Longitudinal studies have found that perceived parental warmth and monitoring have been tied to increases in global Positive Youth Development (a composite of competence, confidence, connection, character, and caring) from ninth to eleventh grade (Napolitano et al. 2011). In younger adolescents, perceived parent psychological control and behavioral control were indirectly linked to later Positive Youth Development (Cao et al. 2020; Lewin-Bizan et al. 2010)

1.4. The Current Study

The present study tested a transactional model, informed by relational developmental systems, which encompassed both child-driven and parent-driven cross-lagged effects. To be specific, we hypothesized that perceived positive parenting practices foster subsequent adaptive youth behaviors and that Positive Youth Development elicits subsequent perception of constructive parent behaviors, operationalized as bidirectional parallel processes (see Figure 1). The model tests the assumption that adolescent children influence and are influenced by perceived parenting behaviors. Although many longitudinal studies have explored similar transactional processes in the context of problem behavior (e.g., Huey et al. 2020; Soenens et al. 2008), our study is unique in its focus on longitudinal, cross-lagged, transactional developmental processes that describe Positive Youth Development specifically operationalized in terms of the original (Lerner et al. 2005) Five Cs. Based on past research, we anticipated transactional pathways between perceived parenting practices and Positive Youth Development, although we recognize that unidirectional studies tend to overstate the magnitude of effects because the effects were inflated by correlated patterns of change (Hafen and Laursen 2009). Our focus on the family context offers an important complement to the existing emphasis and empirical body of knowledge on Positive Youth Development and engagement with the community outside of the home (e.g., Ramey and Rose-Krasnor 2012).
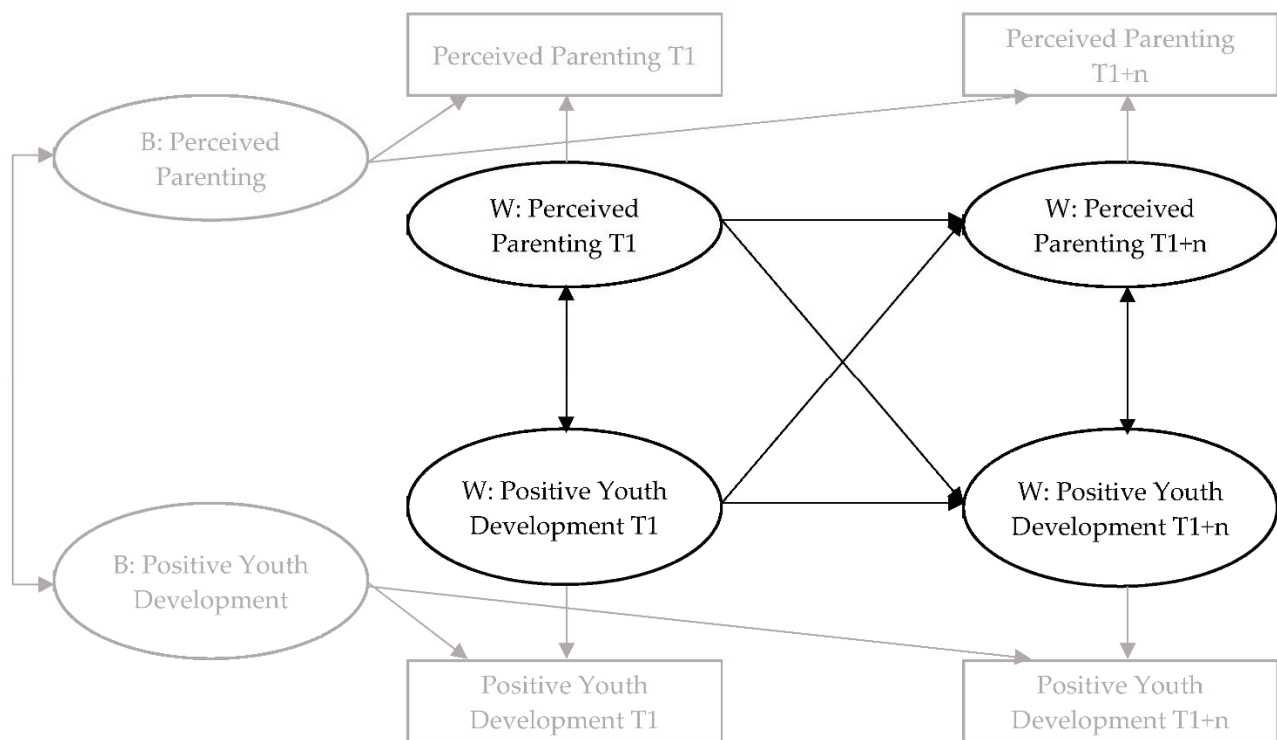
Figure 1. The conceptual and measurement model of mutually influential relationships. Note: The conceptual model is represented by black lines and the measurement model by black and grey together. The measurement model is the random intercept cross-lagged panel model. W = Within-person. B = Between-person.

The study was conducted in Lithuania, a Northern European country that is currently a member of NATO and the European Union. Most of the parents described in the current study were raised when the country was part of the Soviet Union, a time when conformity and obedience were prioritized (Gorlizki and Khlevniuk 2020). Psychological control was a salient construct in the Soviet Union (Hart et al. 1998), and although three decades of freedom have brought numerous essential changes to life in postcommunist societies such as the establishment of democracy, individualism, and the adoption of other Western values, most Eastern European countries still report somewhat higher levels of "traditional" parenting practices, compared to their Western European counterparts (Steinbach and Maslauskaitė 2020). Nevertheless, adolescent development in Lithuania resembles that in other Western communities where youth attend school in relatively small, relatively homogeneous cities (Kaniušonytė and Žukauskienė 2018). Of relevance to our study, a 2014 review of youth development programs in Lithuania did not identify any that focused on Positive Youth Development (Gabrialavičiūtė et al. 2014). In the intervening years, only one such program was developed (Truskauskaitė-Kunevičienė et al. 2020).

2. Materials and Methods

2.1. Participants

The community sample comprised 454 (215 boys and 239 girls) students attending five high schools in Western Lithuania. Participants (M_{age} = 15.14, SD_{age} = 0.48) were in the 9th grade (i.e., the 1st year of high school) at the outset. Nearly all participants were ethnic Lithuanian; 69.5% of the participants lived with two biological parents; 26.1% of children received free nutrition at school.

2.2. Procedure

Consistent with national and regional policy, parents were informed about the study by letter and asked to contact the school or the investigators if they did not want their child

to participate. Written assent was received from students, who were told that participation was voluntary. Trained research assistants administered questionnaires in class during regular school hours in the spring of 2013, 2014, 2015, and 2016.

A total of 454 students participated in the 9th grade (participation rate = 99.1%). Of this total, 446 participated as 10th graders, 391 participated as 11th graders, and 371 participated as 12th graders. Thus, 81.7% of the original sample participated in 4 waves of data collection. There were no differences in any study or demographic variables between students with and without complete data at all time points, except that students missing at least one wave of data were more likely to receive free nutrition at school (d = 0.54) than those with complete data.

An average of 17.1 % of reports were missing on perceived parenting variables (range = 5.6–29.4%), and an average of 14 % were missing on Positive Youth Development (range = 4.8–23.2%). To further explore the patterns of missingness and determine whether the data were missing at random, we conducted a normed χ^2 (χ^2/df ratio) test; there is no firm consensus on the recommended values required, but there is agreement that a value less than 2.0 indicates that data are missing at random and that maximum likelihood techniques are appropriate for use (Bollen 1989). The normed χ^2 value was 0.83, so missing item-level data were imputed with an EM algorithm and missing wave-level data were handled with Full-Information Maximum-Likelihood estimation (FIML). As recommended by Enders (2010), we included variables with nonsystematic missingness in the models to meet the requirements for missing data applications under missing-at-random conditions.

2.3. Measures

Positive Youth Development was measured at each wave using the Measure of Positive Youth Development (Lerner et al. 2005; Phelps et al. 2009). The scale consists of 78 items that cover five aspects of Positive Youth Development: character (20 items), competence (11 items), connection (22 items), caring (9 items), and confidence (16 items). The bifactor structure suggested by Geldhof et al. (2014) and validated with this sample by Erentaitė and Raižienė (2015) was modeled. In a bifactor model, the global construct of Positive Youth Development is modeled as a direct function of items rather than only being modeled as a function of lower-order latent constructs (Five C's). Thus, each item indicates a lower-order construct and a general construct by loading onto each simultaneously. Longitudinal and gender measurement invariance can be found in Supplementary Materials S1 and S2. For this study, factor scores of the global Positive Youth Development from the strong longitudinal invariance model were used for all subsequent analyses. Internal reliability was acceptable (alpha = 0.74–0.75).

Parent psychological control was measured at each wave with the 8-item Psychological Control Scale-Youth Self-Report (Barber 1996), describing emotional control and guilt induction (e.g., "Always trying to change how I feel or think about things") for mothers and fathers separately. Items were rated on a scale ranging from 1 (not like her/him) to 3 (a lot like her/him). Scores for mothers and fathers were combined at the item level, and measurement invariance was tested using combined scores. Longitudinal and gender measurement invariance can be found in Supplementary Materials S1 and S2. The internal reliability was acceptable (alpha = 0.79–0.90).

Parent support was measured at the second, third, and fourth waves using the 16-item Transformational Parenting Questionnaire (Morton et al. 2011), describing behaviors that indicate affection, caring, and encouragement (e.g., "Shows comfort and understanding when I am upset") for mothers and fathers separately. Items were rated on a scale ranging from 1 (strongly disagree) to 5 (strongly agree). Scores for mothers and fathers were combined at the item level, and measurement invariance was tested using combined scores. Longitudinal and gender measurement invariance can be found in Supplementary Materials S1 and S2. The internal reliability was acceptable (alpha = 0.74–0.75).

2.4. Plan of Analysis

The analyses were conducted with Mplus Version 8.4 (Muthén and Muthén 1998–2017) using Robust Maximum Likelihood (MLR) estimation within a structural equation model framework. The model fit was examined by using the Comparative Fit Index (CFI), and the Root-Mean-Squared Error of Approximation (RMSEA). CFI values higher than 0.90 are indicative of an acceptable fit with values higher than 0.95 suggesting an excellent or very good fit. RMSEA values lower than 0.05 indicate a good or close fit, and values as high as 0.08 represent acceptable fit. In addition, we examined the 90% confidence interval of the RMSEA: the model fit can be considered acceptable when the upper bound of this confidence interval is no greater than 0.1 (Kline 2016). As a convention, we report the chi-squared statistic; however, we did not use it to test the model fit since it is overly sensitive in moderately large samples (Chen 2007). To determine significant differences between models, at least two of the following criteria had to be matched: $\Delta\chi^2$ significant at $p < 0.05$ (Satorra and Bentler 1994), ΔCFI ≥ 0.010, and ΔRMSEA ≥ 0.015 (Chen 2007). If the models did not differ significantly, the more parsimonious model with more degrees of freedom was retained.

To investigate the within-person longitudinal associations between Positive Youth Development and perceptions of parenting, we conducted a Random Intercept Cross-Lagged Panel Model (RI-CLPM) for each parent behavior separately. RI-CLPM uses latent variables to distinguish stable between-person trait-like differences in constructs across waves from variation within a person at each wave on those same behaviors. Figure 1 depicts the measurement model. The autoregressive parameters represent the amount of within-person carry-over effect, and cross-lagged parameters indicate the extent to which variables predict one another within the same person over time. Correlations involving latent between-person variables describe whether adolescents who are higher overall on one construct (across waves and compared to other persons) are also higher (or lower) overall on another construct (Hamaker et al. 2015). In order to enhance model parsimony, we tested whether cross-lagged effects, autoregressive paths, and T2–T3 within-time correlations (correlated changes) were time invariant. Thus, we compared the baseline unconstrained model (M1) with the model assuming time invariance of cross-lagged associations (M2), T2–T3 within-time correlations (M3), autoregressive paths (M4), and all within-person paths together (M5).

3. Results

3.1. Preliminary Analyses

Concurrent bivariate correlations are presented in Table 1. At all times, Positive Youth Development was positively correlated with perceived parent support and negatively correlated with perceived psychological control.

3.2. Transactional Associations between Perceived Parent Psychological Control and Positive Youth Development

The model fit the data well ($\chi^2(9) = 19.9$, CFI = 0.996, RMSEA = 0.052). The findings supported the assumption of time invariance only for cross-lagged paths (Table 2). The estimates of cross-lagged effects, autoregressive paths, and within-time correlations for between and within-person effects are reported in Figure 2. Within-person results indicated that higher levels of Positive Youth Development (relative to the person's average levels) predicted decreased perceived psychological control (lower relative to the person's average than before). Positive Youth Development and perceived psychological control were negatively correlated at T2 and at T4 (relative to one's own average score). At the between-person level, adolescents with higher overall levels of Positive Youth Development (compared to other adolescents) perceived their parents as less psychologically controlling.

Table 1. Within and over time bivariate correlations between Positive Youth Development and perceived parental behavior.

Variable	1	2	2	4	5	6	7	8	9	10
1. PYD T1	–									
2. PYD T2	0.86 [0.83, 0.88]	–								
3. PYD T3	0.77 [0.73, 0.81]	0.89 [0.87, 0.91]	–							
4. PYD T4	0.68 [0.62, 0.73]	0.72 [0.66, 0.77]	0.78 [0.73, 0.82]	–						
5. Support T1	0.41 [0.32, 0.50]	0.44 [0.35, 0.53]	0.41 [0.32, 0.49]	0.32 [0.24, 0.41]	–					
6. Support T2	0.38 [0.29, 0.47]	0.40 [0.31, 0.49]	0.43 [0.35, 0.52]	0.35 [0.26, 0.43]	0.56 [0.48, 0.63]	–				
7. Support T3	0.27 [0.18, 0.36]	0.28 [0.18, 0.37]	0.33 [0.24, 0.42]	0.50 [0.43, 0.57]	0.34 [0.26, 0.44]	0.41 [0.31, 0.50]	–			
8. Control T1	−0.34 [−0.44, −0.24]	−0.35 [−0.44, −0.26]	−0.33 [−0.42, −0.23]	−0.25 [−0.34, −0.15]	−0.36 [−0.45, −0.27]	−0.28 [−0.37, −0.18]	−0.20 [−0.29, −0.11]	–		
9. Control T2	−0.33 [−0.41, −0.26]	−0.41 [−0.48, −0.33]	−0.38 [−0.45, −0.30]	−0.31 [−0.38, −0.24]	−0.41 [−0.51, −0.31]	−0.32 [−0.41, −0.23]	−0.23 [−0.34, −0.14]	0.52 [0.42, 0.61]	–	
10. Control T3	−0.35 [−0.44, −0.26]	−0.42 [−0.50, −0.35]	−0.42 [−0.49, −0.34]	−0.33 [−0.42, −0.24]	−0.36 [−0.44, −0.27]	−0.39 [−0.48, −0.30]	−0.26 [−0.37, −0.17]	0.58 [0.51, 0.66]	0.59 [0.51, 0.67]	–
11. Control T4	−0.32 [−0.40, −0.23]	−0.34 [−0.42, −0.26]	−0.37 [−0.44, −0.28]	−0.44 [−0.52, −0.36]	−0.27 [−0.36, −0.18]	−0.29 [−0.38, −0.20]	−0.51 [−0.61, −0.40]	0.39 [0.30, 0.48]	0.47 [0.38, 0.55]	0.56 [0.46, 0.64]

Note: PYD—Positive Youth Development, Support = Perceived Parent Support, Control = Perceived Parent Psychological Control, T = time; all correlations significant at $p < 0.001$.

Table 2. Model fit of the random intercept cross-lagged panel models and model comparisons.

Model	χ^2 (*df*)	CFI	RMSEA [95% CI]	Model Comparison	$\Delta\chi^2$	ΔCFI	ΔRMSEA
Positive Youth Development and Psychological Control							
Model 1	19.9 (9)	0.996	0.052 [0.020–0.083]				
Model 2	26.1 (13)	0.995	0.047 [0.019–0.073]	M1/M2	60.17	0.001	0.005
Model 3	40.9 (11)	0.988	0.077 [0.053–0.103]	M1/M3	200.99 *	0.008	0.025
Model 4	39.2 (13)	0.990	0.067 [0.043–0.091]	M1/M4	190.30 *	0.006	0.015
Model 5	69.6 (19)	0.980	0.077 [0.058–0.096]	M1/M5	490.75 *	0.016	0.025
Positive Youth Development and Parent Support							
Model 1	1.2 (1)	1	0.021 [0.000–0.128]				
Model 2	2.0 (3)	1	0.000 [0.000–0.068]	M1/M2	00.84	0	0.021
Model 3	15.8 (2)	0.992	0.123 [0.072–0.183]	M1/M3	140.63 *	0.008	0.102
Model 4	18.1 (3)	0.991	0.105 [0.062–0.154]	M1/M4	160.93 *	0.009	0.084
Model 5	47.7 (6)	0.975	0.124 [0.093–0.158]	M1/M5	460.55 *	0.025	0.123

Note: N = 454, 95% confidence intervals given in brackets. M1 = baseline model; M2 = model with cross-lagged paths fixed to be time invariant; M3 = model with T3–T4 within-time correlations fixed to be time invariant; M4 = model with autoregressive paths fixed to be time invariant; M5 = model with cross-lagged paths and T2–T4 correlations fixed to be time invariant. * $p < 0.05$.
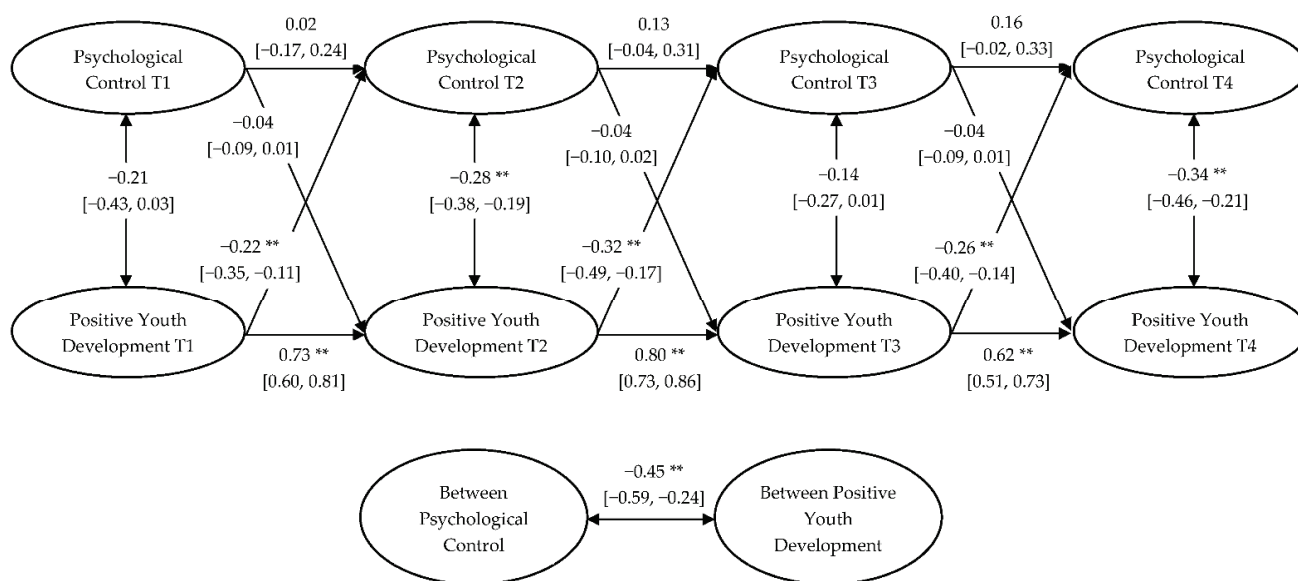
Figure 2. Simplified random intercept cross-lagged panel model between perceived psychological control and Positive Youth Development with standardized coefficients. Note: Cross-lagged paths are fixed to be equal between time points; the discrepancies are due to standardization. $N = 454$. ** $p < 0.001$.

3.3. Transactional Associations between Perceived Parent Support and Positive Youth Development

The model fit the data well ($\chi^2(1) = 1.2$, CFI = 1, RMSEA = 0.021). The findings supported the assumption of time invariance only for cross-lagged paths (Table 2). The estimates of cross-lagged effects, autoregressive paths, and within-time correlations for between and within-person effects are reported in Figure 3. Within-person results indicated that higher levels of Positive Youth Development (relative to the person's average levels) predicted increased perceived support (higher relative to the person's average than before). A change in Positive Youth Development and perceived support (increases or decreases relative to one's own average) were positively correlated at all times. At the between-person level, adolescents did not display general between-person level differences, meaning that adolescents perceived their parents as similarly supportive across different levels of Positive Youth Development.
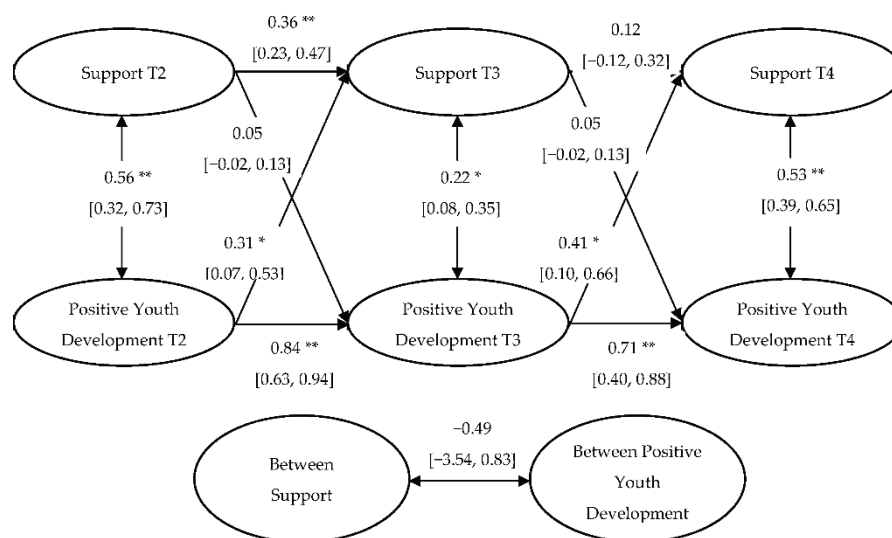
Figure 3. Simplified random intercept cross-lagged panel model between perceived support and Positive Youth Development with standardized coefficients. Note: Cross-lagged paths are fixed to be equal between time points, the discrepancies are due to standardization. $N = 454$. * $p < 0.05$, ** $p < 0.001$.

4. Discussion

The results of a four-wave cross-lagged transactional longitudinal analysis revealed child-driven, but not parent-driven effects: Positive Youth Development predicted subsequent changes in both perceived parent support and psychological control. Perceived parent behavior did not predict changes in Positive Youth Development. Our study is unique in that it is one of the first to examine transactional associations between Positive Youth Development and adolescent perceptions of constructive parenting practices. Nevertheless, the findings are consistent with narrative reviews (Meeus 2016) arguing that child-driven effects are more consistent than parent-driven effects in models exploring associations between adolescent difficulties and parent–child relationships.

The results afford at least two interpretations, which are not mutually exclusive. First, Positive Youth Development shapes child perceptions of parent behavior. In this sense, Positive Youth Development has potential to affect the overall quality of parent–child relationships. Thus, as more psychosocial resources become available to an individual, the better their relationships will be with all significant others, including parents (Kochendorfer and Kerns 2017). Better-quality relationships with parents translate into more positive perception of parents and, in some cases, more constructive parenting practices. Second, Positive Youth Development directly shapes specific forms of parent behavior. Although much of the literature focuses on the ways in which negative adolescent adjustment shapes parenting behavior, there is some evidence that positive adolescent adjustment works in a similar fashion (Yan and Ansari 2016). Well-adjusted adolescent behaviors elicit greater parental warmth and support, both of which are reflections of constructive parenting (Barber et al. 2005; Lewin-Bizan et al. 2010). It may be that when children and adolescents demonstrate positive characteristics, they elicit and reward the use of positive parenting techniques in their parents (Yan and Ansari 2016).

When adolescents are encouraged to create positive relationships with their family, friends, and community, there are demonstrated benefits for personal development (Lerner 2004). The "Big Three" features of effective programs for Positive Youth Development include opportunities for youth to participate in leadership activities, programs that emphasize life skills, and participation in sustained youth–adult relationships. Many volunteer activities embrace all three. These may have important spinoff effects. When parents are part of a support system of Positive Youth Development, they have new opportunities to practice positive parenting, avoiding the decline in warmth and support that can afflict poor-quality child relationships that struggle with negativity during adolescence (Laursen et al. 2010).

We did not find reciprocal transactions interactions between Positive Youth Development and parenting. Parenting practices were unrelated with changes in Positive Youth Development. The findings may illustrate decreases in the amount of time that adolescents spend in the company of parents and the increased exposure to and influence of others, especially friends and romantic partners). Alternatively, Meeus (2016) argued that parents play an important role in positive aspects of development during the late childhood and early adolescent years, prior to the emergence of a mature self-image, but that this influence declines with age. As autonomy and independence develop, plasticity declines and is less affected by external stimuli. That is not to say that parents have no influence on adolescents, but rather, adolescents may be less influenced by parent behaviors in late adolescence as compared to early adolescence. It is also possible that parents influence their adolescents in different ways than parents in previous times. Daily social media use is common during adolescence, an activity that did not exist for previous parenting generations. Parents who monitor their adolescent's social media content may engage youth with activities geared for Positive Youth Development, thus influencing their adolescent in unmeasured ways. A final alternative recognizes findings from a genetically informed study that suggested that parent-driven effects are illusory, a byproduct of error arising from gene–environment correlations (Guimond et al. 2016).

Limitations, Future Directions, and Implications

This study provides new insights into the interplay of family relationships and Positive Youth Development, and it should be considered both in light of its strengths and its shortcomings. Perceived parenting behaviors and adolescent outcomes were collected simultaneously.

Some may argue that our reliance on self-reports is a limitation. However, parents are not particularly accurate reporters of adolescent's inner states such as internalizing symptoms (Angold et al. 1987), and the impact of parenting depends more on how the adolescent perceives and interprets the parent behaviors than on how the parent reports their own behaviors (Stattin and Kerr 2000). To be sure, our results describe adolescent perceptions of parenting behaviors, which should not be confused with actual or observed parent behaviors. There is merit to understanding both. Of additional concern is bias arising from same reporter variance, which may inflate variance across predictor and outcome variables. There is evidence that bias in within-reporter correlations between mother and child views of psychological control and child behavior problems depend on the degree to which the latter is readily observable; shared views across reporters minimize the chances that within-reporter results are a product of same-reporter biases (Valdes et al. 2016). Finally, it is worth noting that the participants attended school in a small, homogeneous Northern European community. It remains to be seen whether the findings generalize to youth living in heterogeneous, urban contexts.

Mediators and moderators of Positive Youth Development and parental behavior should be included in future research. Potential mediators could include self-regulation (Bowers et al. 2011), identity-formation processes (Berzonsky et al. 2007; Luyckx et al. 2007), or the satisfaction of basic needs (Costa et al. 2016). The timing and units of change can be an emphasis of future research on this topic as well. It might be the case that perceived parental influence on adolescent's Positive Youth Development happens earlier than the ninth grade and the parent-driven effects might be evident at earlier age periods. Furthermore, it is possible that the transactions that happen within the relationships can be captured only in shorter time lags. Because interinfluence between two variables in dynamic relational developmental processes occurs continually over time the discrete time measurements can capture only a snapshot of it (Rioux and Little 2020).

The findings should not be interpreted to mean that contemporary parents are ineffectual or irrelevant to adolescent children. There are several domains where parents clearly foster adaptive competencies in their adolescent children, such as academic competence, connection, and self-regulation (see Laursen and Collins 2009, for a review). As noted above, it may also be the case that parents impact some, but not all of the competencies included in our global measure of positive development. Further, as we have suggested elsewhere (Lewin-Bizan et al. 2010), the overall tenor and quality of parent relationships with adolescent children has long-lasting repercussions for adolescent adjustment. Finally, we note that parents are expected to demonstrate diminished influence over adolescents because in many Western cultures, the goal of competent parenting is precisely the encouragement of this sort of disengagement and self-reliance. Put simply, positive parenting behaviors facilitate adolescent autonomy, which may ultimately reduce adolescent dependence on parents and parent influence over adolescent children (Lewin-Bizan et al. 2010).

The findings have important implications for 21st Century parents who face a landscape very different from that of parents in earlier generations. Adolescents today have access to technology that offers the opportunity for near-constant contact with peers and nonstop entertainment (Brown et al. 2013). Thus, parent influence is challenged not only by the rise in peer influence during adolescence, but also by influence from social media. In this context, parents potentially may more effectively serve as moderators of outside sources of influence, rather than as forces that directly shape outcomes (e.g., Dickson et al. 2015; Marion et al. 2014). Effective parents recognize that social media can be used as an effective tool to facilitate Positive Youth Development by engaging adolescents with volunteerism and community activities of their interests (Lee and Horsley 2017). Parents may direct

youth to community media sources that will ultimately promote Positive Youth Development. Thus, compared to previous generations, contemporary parents are faced with new challenges and new opportunities to indirectly shape the positive development of their adolescent children. These mechanisms can be an important question to raise in future empirical studies.

The findings offer two important takeaways. The first is that parents respond to emerging competence in children with adaptive adjustments to parenting practices, such as more support and less psychological control. Although it is good to know that parents are responsive to child development, we believe that all adolescents would profit from parent support and an environment free of psychological control. Practitioners should alert parents to their subtle adjustments in the face of child maturation and encourage an awareness of constructive parent behaviors regardless of the child's level of positive development. The second takeaway is that parents should embrace practices such as volunteerism that encourage Positive Youth Development because child competencies might have a constructive impact on perceived or actual parenting practices or at least the tenor of the parent–child relationship (Theokas and Lerner 2006), improving the chances that both parties will enjoy the time they share together.

References

Angold, Adrian, Myrna M. Weissman, Karen John, Kathleen R. Merikancas, Brigitte A. Prusoff, Priya Wickramaratne, G. Davis Gammon, and Virgina Warner. 1987. Parent and child reports of depressive symptoms in children at low and high risk of depression. *Journal of Child Psychology and Psychiatry* 28: 901–15. [CrossRef]

Barber, Brian K. 1996. Parental psychological control: Revisiting a neglected construct. *Child Development* 67: 3296–319. [CrossRef]

Barber, Brian K., Suzanne L. Maughan, and Joseph A. Olsen. 2005. Patterns of parenting across adolescence. *New Directions for Child and Adolescent Development* 108: 5–16. [CrossRef]

Bebiroglu, Neda, G. John Geldhof, Ellen E. Pinderhughes, Erin Phelps, and Richard M. Lerner. 2013. From family to society: The role of perceived parenting behaviors in promoting youth civic engagement. *Parenting* 13: 153–68. [CrossRef]

Bell, Richard Q. 1968. A reinterpretation of the direction of effects in studies of socialization. *Psychological Review* 75: 81–95. [CrossRef] [PubMed]

Berzonsky, Michael, Susan J. T. Branje, and Wim Meeus. 2007. Identity processing style, psychosocial resources, and adolescents' perceptions of parent-adolescent relations. *Journal of Early Adolescence* 27: 324–45. [CrossRef]

Bollen, Kenneth A. 1989. *Structural Equations with Latent Variables*. Hoboken: Wiley.

Bornstein, Marc H. 2003. Positive parenting and positive development in children. In *Handbook of Applied Developmental Science: Promoting Positive Child, Adolescent, and Family Development through Research, Policies, and Programs*. Edited by Richard M. Lerner, Francine Jacobs and Donald Wertlieb. New York: Sage, pp. 187–209.

Bowers, Edmond P., Steinunn Gestsdottir, G. John Geldhof, Jana Nikitin, Alexanderv on Eye, and Richard M.Lernera. 2011. Developmental trajectories of intentional self regulation in adolescence: The role of parenting and implications for positive and problematic outcomes among diverse youth. *Journal of Adolescence* 34: 1193–206. [CrossRef] [PubMed]

Bowers, Edmond P., Sara K. Johnson, Mary H. Buckingham, Santiago Gasca, Daniel J. A. Warren, Jacqueline V. Lerner, and Richard M. Lerner. 2014. Important non-parental adults and Positive Youth Development across mid- to late-adolescence: The moderating effect of parenting profiles. *Journal of Youth and Adolescence* 43: 897–918. [CrossRef] [PubMed]

Brown, Annie W., Ruby M. Gourdine, Shayna Waites, and Allessia P. Owens. 2013. Parenting in the twenty-first century: An introduction. *Journal of Human Behavior in the Social Environment* 23: 109–17. [CrossRef]

Cao, Juan, Xiaoyan Li, Zhi Ye, Mingjun Xie, and Danhua Lin. 2020. Parental psychological and behavioral control and positive youth development among young Chinese adolescents: The mediating role of basic psychological needs satisfaction. *Current Psychology*, 1–12. [CrossRef]

Chen, Fang F. 2007. Sensitivity of goodness of fit indexes to lack of measurement invariance. *Structural Equation Modeling* 14: 464–504. [CrossRef]

Costa, Sebastiano, Francesca Cuzzocrea, Maria C. Gugliandolo, and Rosalba Larcan. 2016. Associations between parental psychological control and autonomy support, and psychological outcomes in adolescents: The mediating role of need satisfaction and need frustration. *Child Indicators Research* 9: 1059–76. [CrossRef]

Dickson, Daniel J., Brett Laursen, Håkan Stattin, and Margaret Kerr. 2015. Parental supervision and alcohol abuse among adolescent girls. *Pediatrics* 136: 617–24. [CrossRef]

Enders, Craig. K. 2010. *Applied Missing Data Analysis.* New York: Guilford press.

Erentaitė, Rasa, and Saulė Raižienė. 2015. Lithuanian version of measure of Positive Youth Development based on the Five Cs model. *European Journal of Developmental Psychology* 12: 701–17. [CrossRef]

Flanagan, Constance A., and Nakesha Faison. 2001. Youth civic development: Implications of research for social policy and programs. *Social Policy Report* 15: 3–16. [CrossRef]

Gabrialavičiūtė, Ingrida, Saulė Raižienė, Inga Truskauskaitė-Kunevičienė, and Renata Garckija. 2014. Youth development programs in Lithuania: Prevention and Positive Youth Development. *International Journal of Psychological Studies* 6: 13–23. [CrossRef]

Gallant, Karen, Bryan Smale, and Susan Arai. 2010. Civic engagement through mandatory community service: Implications of serious leisure. *Journal of Leisure Research* 42: 181–201. [CrossRef]

Geldhof, G. John, Edmond P. Bowers, Michelle J. Boyd, Megan K. Mueller, Christopher M. Napolitano, Kristina L. Schmid, Jacqueline V. Lerner, and Richard M. Lerner. 2014. Creation of short and very short measures of the Five Cs of Positive Youth Development. *Journal of Research on Adolescence* 24: 163–76. [CrossRef]

Gonzales, Nancy A., Ana Mari Cauce, and Craig A. Mason. 1996. Interobserver agreement in the assessment of parental behavior and parent-adolescent conflict: African American mothers, daughters, and independent observers. *Child Development* 67: 1483–98. [CrossRef]

Gorlizki, Yoram, and Oleg Khlevniuk. 2020. *Substate Dictatorship: Networks, Loyalty, and Institutional Change in the Soviet Union.* New Haven: Yale University Press.

Gorostiaga, Arantxa, Jone Aliri, Nekane Balluerka, and Joanes Lameirinhas. 2019. Parenting styles and internalizing symptoms in adolescence: A systematic literature review. *International Journal of Environmental Research and Public Health* 16: 3192–211. [CrossRef]

Guimond, Fanny-Alexandra, Brett Laursen, Frank Vitaro, Mara Brendgen, Ginette Dionne, and Michel Boivin. 2016. Associations between mother–child relationship quality and adolescent adjustment: Using a genetically controlled design to determine the direction and magnitude of effects. *International Journal of Behavioral Development* 40: 196–204. [CrossRef]

Hafen, Christopher A., and Brett Laursen. 2009. More problems and less support: Early adolescent adjustment forecasts changes in perceived support from parents. *Journal of Family Psychology* 23: 193–202. [CrossRef]

Hamaker, Ellen L., Rebecca M. Kuiper, and Raoul P. P. P. Grasman. 2015. A critique of the cross-lagged panel model. *Psychological Methods* 20: 102–16. [CrossRef]

Hare, Amanda L., David E. Szwedo, Megan M. Schad, and Joseph P. Allen. 2014. Undermining adolescent autonomy with parents and peers: The enduring implications of psychologically controlling parenting. *Journal of Research on Adolescence* 25: 739–52. [CrossRef]

Hart, Craig H., David A. Nelson, Clyde C. Robinson, Susanne F. Olsen, and Mary K. McNeilly-Choque. 1998. Overt and relational aggression in Russian nursery-school-age children: Parenting style and marital linkages. *Developmental Psychology* 34: 687–97. [CrossRef]

Huey, Melissa, Brett Laursen, Goda Kaniušonytė, Oksana Malinauskienė, and Rita Žukauskienė. 2020. Self-esteem mediates longitudinal associations from adolescent perceptions of parenting to adjustment. *Journal of Abnormal Child Psychology* 48: 331–41. [CrossRef]

Kaniušonytė, Goda, and Brett Laursen. 2021. Parenting styles revisited: A longitudinal person-oriented assessment of parents of adolescent children. *Journal of Social and Personal Relationships* 38: 210–31. [CrossRef]

Kaniušonytė, Goda, and Rita Žukauskienė. 2018. Relationships with parents, identity styles, and positive youth development during the transition from adolescence to emerging adulthood. *Emerging Adulthood* 6: 42–52. [CrossRef]

Kiadarbandsari, Atefeh, Zainal Madon, Hanina H. Hamsan, and Mehdi Nezhad K. Nouri. 2016. Role of parenting style and parents' education in positive youth development in adolescents. *Journal of Social Sciences and Humanities* 24: 1465–80.

Kline, Rex B. 2016. *Principles and Practice of Structural Equation Modeling*, 4th ed. NewYork: Guilford.

Kochendorfer, Logan B., and Kathryn A. Kerns. 2017. Perceptions of parent-child attachment relationships and friendship qualities: Predictors of romantic relationship involvement and quality in adolescence. *Journal of Youth and Adolescence* 46: 1009–21. [CrossRef]

Laursen, Brett, and W. Andrew Collins. 2009. Parent–child relationships during adolescence. In *In Handbook of Adolescent Psychology, Volume, 1: Contextual Influences on Adolescent Development*, 3rd ed. Edited by Richard M. Lerner and Laurence Steinberg. Hoboken: John Wiley & Sons, pp. 3–42. [CrossRef]

Laursen, Brett, Dawn DeLay, and Ryan E. Adams. 2010. Trajectories of perceived support in mother–adolescent relationships: The poor (quality) get poorer. *Developmental Psychology* 46: 1792–98. [CrossRef]

Lee, Ah Ram, and J. Suzanne Horsley. 2017. The role of social media on positive youth development: An analysis of 4-H Facebook page and 4-H'ers' positive development. *Children and Youth Services Review* 77: 127–38. [CrossRef]

Lerner, Richard M. 2004. *Liberty: Thriving and Civic Engagement among American Youth*. New York: Sage.

Lerner, Richard M. 2021. *Individuals as Producers of Their Own Development: The Dynamics of Person-Context Coactions*. London: Routledge.

Lerner, Richard M., Elisabeth M. Dowling, and Pamela M. Anderson. 2003. Positive youth development: Thriving as a basis of personhood and civil society. *Applied Developmental Science* 7: 172–80. [CrossRef]

Lerner, Richard M., Jacqueline V. Lerner, Edmond Bowers, and G. John Geldhof. 2015. Positive youth development and relational-developmental-systems. In *Handbook of Child Psychology and Developmental Science, Theory and Method*, 7th ed. Edited by Willis F. Overton, Peter Molenaar and Richard M. Lerner. Hoboken: John Wiley & Sons, pp. 607–51.

Lerner, Richard M., Jacqueline V. Lerner, Jason B. Almerigi, Christina Theokas, Erin Phelps, Sophie Naudeau, and Alexander von. 2006. Towards a new vision and vocabulary about adolescence: Theoretical, empirical, and applied bases of a "Positive Youth Development" perspective. In *Child Psychology: A Handbook of Contemporary Issues*. Edited by Lawrence Balter and Catherine S. Tamis-LeMonda. Philadelphia: Psychology Press, pp. 445–69.

Lerner, Richard M., Jacqueline V. Lerner, Jason B. Almerigi, Christina Theokas, Erin Phelps, Steinunn Gestsdottir, Sophie Naudeau, Helena Jelicic, Amy Alberts, Lang Ma, and et al. 2005. Positive youth development, participation in community youth development programs, and community contributions of fifth grade adolescents: Findings from the first wave of the 4-H study of positive youth development. *Journal of Early Adolescence* 25: 17–71. [CrossRef]

Lewin-Bizan, Selva, Edmond P. Bowers, and Richard M. Lerner. 2010. One good thing leads to another: Cascades of positive youth development among American adolescents. *Development and Psychopathology* 22: 759–70. [CrossRef]

Luyckx, Koen, Bart Soenens, Luc Goossens, and Maarten Vansteenkiste. 2007. Parenting, identity formation, and college adjustment: A mediation model with longitudinal data. *Identity* 7: 309–30. [CrossRef]

Marion, Donna, Bret Laursen, Noona Kiuru, Jari-Erik Nurmi, and Katariina Salmela-Aro. 2014. Maternal affection moderates friend influence on schoolwork engagement. *Developmental Psychology* 50: 766–71. [CrossRef] [PubMed]

Meeus, Wim. 2016. Adolescent psychosocial development: A review of longitudinal models and research. *Developmental Psychology* 52: 1969–93. [CrossRef] [PubMed]

Moore, Kristin A., and Dana Glei. 1995. Taking the plunge: An examination of positive youth development. *Journal of Adolescent Research* 10: 15–40. [CrossRef]

Morton, Katie L., Julian Barling, Ryan E. Rhodes, Louise C. Mâsse, Bruno D. Zumbo, and Mark R. Beauchamp. 2011. The application of transformational leadership theory to parenting: Questionnaire development and implications for adolescent self-regulatory efficacy and life satisfaction. *Journal of Sport & Exercise Psychology* 33: 688–709. [CrossRef]

Muthén, Linda K., and Bengt O. Muthén. 1998–2017. *Mplus User's Guide*, 8th ed. Los Angeles: Muthén & Muthén. Available online: https://www.statmodel.com/HTML_UG/introV8.htm (accessed on 14 September 2021).

Napolitano, Christpoher M., Edmond P. Bowers, Steinunn Gestsdottir, Miriam Depping, Alexander von Eye, Paul Chase, and Jacqueline V.Lernere. 2011. The role of parenting and goal selection in positive youth development: A person-centered approach. *Journal of Adolescence* 34: 1137–49. [CrossRef]

Overton, Willis F. 2015. Processes, relations, and relational developmental systems. In *Handbook of Child Psychology and Developmental Science: Vol. 1. Theory and Method*, 7th ed. Edited by Willis F. Overton, Peter Molenaar and Richard M. Lerner. Hoboken: John Wiley & Sons, pp. 9–62. [CrossRef]

Pettit, Gregory S., and Dilbur D. Arsiwalla. 2008. Commentary on special section on "Bidirectional Parent-Child Relationships": The continuing evolution of dynamic transactional models of parenting and youth behavior problems. *Journal of Abnormal Child Psychology* 36: 711–18. [CrossRef] [PubMed]

Pettit, Gregory S., Robert D. Laird, Kenneth A. Dodge, John E. Bates, and Michael M. Criss. 2001. Antecedents and behavior-problem outcomes of parental monitoring and psychological control in early adolescence. *Child Development* 72: 583–98. [CrossRef] [PubMed]

Phelps, Erin, Stacy Zimmerman, A. E. A. Warren, Helena Jeličić, Alexander von Eye, and Richard M. Lerner. 2009. The structure and developmental course of positive youth development (PYD) in early adolescence: Implications for theory and practice. *Journal of Applied Developmental Psychology* 30: 571–84. [CrossRef]

Power, Thomas G. 2013. Parenting dimensions and styles: A brief history and recommendations for future research. *Childhood Obesity* 9: 14–21. [CrossRef] [PubMed]

Ramey, Heather L., and Linda Rose-Krasnor. 2012. Contexts of Structured Youth Activities and Positive Youth Development. *Child Development Perspectives* 6: 85–91. [CrossRef]

Rioux, Charlie, and Todd D. Little. 2020. Underused methods in developmental science to inform policy and practice. *Child Development Perspectives* 14: 97–103. [CrossRef]

Sameroff, Arnold J. 1975. Transactional models in social relations. *Human Development* 18: 65–79. [CrossRef]

Sameroff, Arnold J., and Michael J. Mackenzie. 2003. Research strategies for capturing transactional models of development: The limits of the possible. *Development and Psychopathology* 15: 613–40. [CrossRef]

Satorra, Albert, and Peter M. Bentler. 1994. Corrections to test statistics and standard errors in covariance structure analysis. In *Latent Variables Analysis: Applications to Developmental Research*. Edited by A. von Eye and C. C. Clogg. New York: Sage, pp. 399–419.

Silk, Jennifer S., Amanda S. Morris, Tomoe Kanaya, and Laurence Steinberg. 2003. Psychological control and autonomy granting: Opposite ends of a continuum or distinct constructs? *Journal of Research on Adolescence* 13: 113–28. [CrossRef]

Soenens, Bart, and Maarten Vansteenkiste. 2010. A theoretical upgrade of the concept of parental psychological control: Proposing new insights on the basis of self-determination theory. *Developmental Review* 30: 74–99. [CrossRef]

Soenens, Bart, Koen Luyckx, M. Vansteenkiste, Bart Duriez, and Luc Goossens. 2008. Clarifying the link between parental psychological control and adolescents' depressive symptoms: Reciprocal versus unidirectional models. *Merrill-Palmer Quarterly* 54: 411–44. [CrossRef]

Stattin, Häkan, and Margaret Kerr. 2000. Parental monitoring: A reinterpretation. *Child Development* 71: 1072–85. [CrossRef] [PubMed]

Steinbach, Anja, and Aušra Maslauskaitė. 2020. Childcare in Lithuania and Belarus: How gendered is parenting in Eastern European countries? *Journal of Family Studies*, 1–17. [CrossRef]

Steinberg, Laurence, Julie D. Elmen, and Nina S. Mounts. 1989. Authoritative parenting, psychological maturity, and academic success among adolescents. *Child Development* 60: 1424–36. [CrossRef]

Theokas, Christina, and Richard M. Lerner. 2006. Observed ecological assets in families, schools, and neighborhoods: Conceptualizations, measurement, and relations with positive and negative developmental outcomes. *Applied Developmental Science* 10: 61–74. [CrossRef]

Truskauskaitė-Kunevičienė, Inga, Eva Romera, Rosario Ortega-Ruiz, and Rita Žukauskienė. 2020. Promoting positive youth development through a school-based intervention program try volunteering. *Current Psychology* 39: 705–19. [CrossRef]

Valdes, Olivia M., Brett Laursen, Fanny A. Guimond, Amy C. Hartl, and Jill Denner. 2016. Maternal psychological control and its association with mother and child perceptions of adolescent adjustment: More evidence on the strength of shared perspectives. *Journal of Youth and Adolescence* 45: 2151–63. [CrossRef] [PubMed]

Yan, Ni, and Arya Ansari. 2016. Child adjustment and parent functioning: Considering the role of child driven effects. *Journal of Family Psychology* 30: 297–308. [CrossRef] [PubMed]

Article

The Intensification of Parenting in Germany: The Role of Socioeconomic Background and Family Form

Sabine Walper [1,*] and Michaela Kreyenfeld [2]

1 German Youth Institute (DJI), Nockherstr. 2, 81541 Munich, Germany
2 Hertie School, Friedrichstr. 180, 10117 Berlin, Germany; kreyenfeld@hertie-school.org
* Correspondence: walper@dji.de

Abstract: Drawing on the international discourse on the intensification of parenting and new data from Germany, this paper aims to contribute to a better understanding of the unique challenges that parents face in the 21st century. We used data from the survey "Parenthood Today", which was conducted in 2019 to examine parents' views on parenting in Germany. The data comprised standardized interviews with 1652 mothers and fathers. We focused on three dimensions of parental pressures: namely, time pressure, financial pressure, and pressure that emanates from the educational system. Time pressure referred to the pressure currently felt, whereas financial pressure and pressure from the educational system referred to changes across time. In each of these domains, more than 60% of the parents experienced high (time) or increasing (education and financial) pressure. Binary logistic regressions showed that while parental education was a strong predictor of experiencing an increase in financial pressure, parental education did not matter for other realms of parenting. However, employment and family form were strongly related to parental time pressure. Full-time employed lone mothers, but also non-resident fathers, reported experiencing heavy pressure when trying to balance their roles as a worker and as a carer. Our results draw attention to the importance of better integrating the needs of post-separation families, including of non-resident fathers, in the debate on the "intensification of parenting".

Keywords: parenting; intensification of parenting; family diversity; lone mothers; non-resident fathers; socioeconomic background

1. Introduction

Increasing ratios of non-marital childbearing, union instability, re-partnering after union dissolution, as well as family formation among same-sex couples have contributed to a growing diversity of family forms. Furthermore, migration has led to an increase in ethnic-cultural diversity among families in many countries of Europe. At the same time, globalization and digitalization have transformed labor markets, which have, in turn, generated new social cleavages and inequalities between families. While these trends have been identified by researchers, the media, and policy makers as major social policy concerns, changes in parenting norms and parenting practices have received less attention in these debates. The growing expectations and demands that parents experience in many contemporary societies have recently been captured under the theme of the "intensification of parenting" (e.g., Faircloth 2014; Smyth and Craig 2017).

Family researchers in the U.S. and Great Britain have been the first to address this trend toward parents putting increasing effort into the care and upbringing of their children (e.g., Bianchi 2000; Bianchi et al. 2004; Craig et al. 2014; Faircloth 2014; Vincent and Maxwell 2016). In both countries, factors like the dominance of private child care and private education and growing inequality at the societal level have driven this trend. However, in continental Europe—including in Germany, which will be the focus of our analyses —conditions differ. Educational systems are primarily public (for details, see below). Furthermore,

changes in social inequality at the societal level have been less extreme in Germany, where family policies aim to reduce socioeconomic differences across families, and to alleviate some of the challenges associated with reconciling work and child care (BMFSFJ 2021). Nevertheless, concerns have also been raised for Germany that parenting has become increasingly demanding and that socioeconomic differences in parents' abilities to meet these demands may generate new forms of social inequality (e.g., Henry-Huthmacher et al. 2008; Ruckdeschel 2015).

The intensification of parenting manifests in an increase in the material and, above all, the immaterial investments of parents in the upbringing, education, and care of their children, which include devoting more quality time to children and making more concerted efforts to support and foster children's positive development. The standards of what constitutes "good parenting" have risen with the emergence of the burgeoning literature on how targeted parental input can promote child development and maximize children's acquisition of competencies (Wall 2010). Particularly in societies that emphasize parents' individual responsibility for their children's upbringing, rising standards seem to have fueled a competition in parental investments in childrearing (Faircloth 2020). As high-income parents have been better able than low-income parents to respond to these new demands, this trend has further exacerbated social disparities in parenting styles, and in parental investments of time and money in children. Overall, parental behavior can be seen as a new dimension that has enforced social inequalities (e.g., Dotti Sani and Treas 2016; Vincent and Maxwell 2016).

Concerns about the effects of the intensification of parenting were addressed in the Ninth Family Report for Germany, which was published by the German Federal Family Ministry in 2021 (BMFSFJ 2021). Based on the report of an interdisciplinary expert committee and framed by a detailed statement of the government, this family report provides deep insights into the demographic, social, and economic situations of families, and into parenting behavior in Germany. It describes trends, illustrates relevant legal conditions, and provides concrete policy suggestions. As part of our work in the expert committee, we not only collected the available evidence from official statistics and compiled the available empirical evidence from family research; we also launched our own survey that focused on "Parenthood Today" (Institut für Demoskopie Allensbach 2020).

In the following, we address the unique challenges faced by parents in the 21st century. We first review international research on the intensification of parenting. We then contextualize these findings for the German case. The empirical part presents analyses of the survey "Parenting Today". Based on this survey, we provide novel evidence on the intensification of parenting, as indicated by parents' reports of feeling that the pressure of parenting has been increasing. Furthermore, we explore the social disparities related to these pressures for the German case.

2. The Intensification of Parenting in International Perspective

2.1. Parents' Monetary and Time Investments in Children

The hypothesis of an intensification of parenting is based on findings from several industrialized countries, which indicate that parents are investing more time in child care today than they were in the 1960s (e.g., Bianchi 2000; Dotti Sani and Treas 2016; Gauthier et al. 2004; Gimenez-Nadal and Sevilla 2012). Fathers, but also mothers, have increased their levels of engagement in child care, even though maternal employment rates have risen in many countries in recent years. In the same vein, data on children's time use in the U.S. indicate that the time children are spending with their parents has increased, even as children's participation in preschool and school programs has expanded (Hofferth and Sandberg 2001). While parents in some countries may not be devoting more time to child care, the time that parents spend with their children is more likely to be "exclusive time". For example, data from Australia for the period between 1992 and 2006 showed that parents reported engaging in more child-centered activities, even though

the overall time they were spending with their children was declining (Craig et al. 2014). Findings along these lines appear to be pointing to a compression of "quality time".

Of particular social policy relevance is the question of whether the trend toward intensified parenting is uniform across social strata, or whether it differs by socioeconomic background and parental income. Across countries, higher educated parents spend more time with their children than parents with lower educational resources (Guryan et al. 2008). However, the abovementioned study for Australia reported a decline in disparities in the time spent with children between different educational groups from 1992 to 2006 (Craig et al. 2014). In an analysis of U.S. data collected between 1965 and 2000, Bianchi et al. (2004) found no changes in the educational gradient of parents' investments of time and money in their children. However, more recent findings from the U.S. suggest that parents' investments in quality time have become less equally distributed across social strata. A comparison of time use data from 1965 to 2013 that captured active parental involvement in developing their children's social, cognitive, or linguistic skills (developmental care time) revealed that mothers and fathers from all educational groups were spending more time on developmental care, but that this increase was more pronounced among mothers with a bachelor's degree (Altintas 2016). Thus, it appears that the positive educational gradient in the amount of active quality time spent on child care has become steeper. Similarly, a cross-national study of 11 industrialized countries found that educational disparities increased between 1965 and 2012, with more highly educated parents investing progressively more time in their children (Dotti Sani and Treas 2016). This study also reported that educational disparities increased consistently across all countries during this period, which suggests that disparities in child investments by socioeconomic background were growing.

In line with these trends, children's time use has also changed. In the U.S. between 1981 and 1997, children's participation in structured activities, such as school, time in day care, sports, and artistic activities, increased. Over the same period, the time children spent on less structured activities, such as playing, watching TV, meeting friends, and "passive leisure", decreased (Hofferth 2009; Hofferth and Sandberg 2001). In the subsequent period from 1997 to 2003, children's time spent on less structured, self-determined activities also declined; whereas the time children invested in structured activities, such as involvement in youth organizations, increased. As Hofferth (2009) noted, parents may have been concerned about "overbooking" their children's schedules and thus prioritized education-oriented activities, which were seen as key for children's future opportunities.

An intensification of parenting can also be observed with respect to parents' monetary investments in their children. There is consistent empirical evidence that expenditures on children are strongly correlated with parental income. While Bianchi et al. (2004) showed that this correlation remained stable between 1988 and 1998 in the U.S., other studies covering a wider time range concluded that the association between parental income and investment per child was becoming stronger over time. Research using data from the 1970s to 2010 found that spending on children increased over this period, both in absolute terms as well as in relation to families' household income (Duncan and Murnane 2011; Kornrich and Furstenberg 2013). The findings further indicated that while this increase was evident across all social strata, high-income parents were making larger monetary investments in their children than low-income parents, and that this difference was growing over the years. It has also been shown that social inequalities, measured at the macro level of society, were related to individual investments in children. If social inequality was high at the societal level, the gap in child-related monetary investments between parents of different income strata was also greater (Schneider et al. 2018).

2.2. Intensive Parenting Styles

The discussion about the intensification of parenting was backed up not only by findings on parents' time use and monetary investments, but also by changes in parenting behavior. Parents have increasingly come to see themselves as highly responsible for monitoring their children's activities and managing their affairs, even in late adolescence

and early adulthood (Gauthier 2015; Kouros et al. 2017; LeMoyne and Buchanan 2011; Padilla-Walker and Nelson 2012; Schiffrin et al. 2014). In the popular literature, this type of parental behavior is frequently referred to as "helicopter parenting," but research has also characterized it as "hyperparenting" (Janssen 2015) or "overparenting" (Segrin et al. 2013). Concerns have been raised that this type of intensified parental involvement may inhibit child development, as it does not sufficiently take into account the child's developmental stage. These parenting practices may shield children from making their own choices, and can thus prevent them from developing personal responsibility and competence. There is, for example, evidence that children who experience highly controlling parenting during early childhood demonstrate less ability to self-regulate during preadolescence (Perry et al. 2018).

"Helicopter parenting" seems to represent an extreme manifestation of broader changes in parents' understanding of how they should best fulfill their roles. Over the past several decades, the shift away from authoritarian-hierarchical family structures and toward more child-centered parenting behaviors has been well documented (Doepke and Zilibotti 2019; Park et al. 2014; Schneewind and Ruppert 1995). This shift places higher demands on parents to provide a beneficial context for child development, as a child's voice is assigned greater importance, and family rules are increasingly negotiated. It has been argued that compared to authoritarian, neglectful, but also indulgent parenting, authoritative parenting is particularly beneficial for promoting positive child development, as it combines parents being responsive to their child's needs, while also demanding that the child exhibits competent behavior (Baumrind 2013; Steinberg 2001). Thus, authoritative parenting has become the standard for "ideal parenting". Along with this trend, parents' demands for guidance have increased markedly. Faircloth (2014) noted a significant increase in the publication of advice literature and academic books on the care, nurturing, and upbringing of children that started in the late 1960s, accelerated in the second half of the 1970s, and did not level off until around the end of the 1990s.

A number of factors have been identified as the main sources of these changes. Findings from research on attachment, parenting, and education have contributed to an increasing pedagogization of childhood, and especially of early childhood. Due to new discoveries about the developmental dynamics of the first years of life and the role of early interaction experiences and learning opportunities in children's further development, parents are increasingly advised to engage in child-centered, responsive childrearing practices, and provide stimulating educational experiences in these early phases of their child's development (e.g., Nationale Akademie der Wissenschaften Leopoldina and der Wissenschaften 2014; Wall 2010, 2018). Attachment research in particular has emphasized the importance of parental sensitivity to the child's needs as the key to secure attachment (e.g., De Woolff and van IJzendoorn 1997), which has, in turn, been identified as a salient factor in a child's positive development (e.g., Li et al. 2021; Meins 2013; Zimmermann et al. 2001). Attachment research has contributed to a better understanding of the role of parental sensitivity, and has also provided avenues for promoting parenting skills (e.g., Landry et al. 2006; van den Boom 1995). At the same time, however, it has raised the standards of engagement for parents, and especially for mothers.

Much of the discourse on intensive parenting has focused the role of mothers. For example, Liss et al. (2013) argued that the intensification of parenting has primarily affected mothers due to five widespread beliefs, i.e., the belief that (1) mothers are inherently better parents than fathers; (2) childrearing has to be fulfilling; (3) parents are responsible for promoting their children's development; (4) motherhood is challenging; and (5) parents should prioritize their children's needs and over their own needs (Liss et al. 2013). However, the high (self-)attribution of responsibility to mothers appears to be problematic, as mothers who subscribe to these beliefs have been found to report lower life satisfaction and more mental health problems (Rizzo et al. 2013). In addition, it has been suggested that this model of childrearing overloads the role of motherhood and fosters traditional gender roles.

The changes in parenting styles must also be seen in conjunction with the mounting pressure associated with increasing labor market competition. A comparison of countries showed that in countries with greater socioeconomic disparities, parents tend to have higher educational aspirations for their children, face more pressure to spend quality time with their children, and have more intensive styles of parenting (Doepke and Zilibotti 2019). Large social inequalities at the societal level have increased the value of parents' investments in their children, since the "returns" on such efforts rise with corresponding opportunities for advancement (as does the fear of downward mobility if the children fail to meet these standards). According to findings by Doepke and Zilibotti (2019), parenting has become noticeably more intense in neoliberal countries such as the U.S., while in countries such as Sweden, which are characterized by lower social disparities, children are under less educational pressure, and are given more freedom to develop in the direction they choose.

Parents' socioeconomic resources have often been linked to their parenting values and practices, while different theoretical notions have been cited in explaining these links. Social class differences in parenting have been attributed to differences in the economic pressures families face. These pressures are greater among families who have fewer financial resources, and who are at a higher risk of failing to meet the standards of intensive parenting (Conger et al. 2010). Social class differences in parenting have also been shown to reflect differences in parents' job-related experiences and associated expectations about what matters in a child's upbringing (Kohn 1969). Furthermore, differences in cultural models of parenting have been identified that may be linked to the trends outlined above. While higher educated parents tend to closely follow the model of "concerted cultivation" (Lareau 2003), and thus deliberately seek to integrate a wide range of stimulating learning options into their everyday family life, less educated parents are more likely to follow the parenting model of "letting things grow." Thus, in addition to having different daily pressures, lifestyles, and attitudes, parents are likely to differ in their expectations about the returns of intensive childrearing efforts, which may explain some of the observed differences in parenting behavior across socioeconomic groups.

Finally, parenting values and practices may determine fertility choices. If the costs and investments per child are perceived as being too high, couples may decide to remain childless or to have only one child. For example, the lowest-low fertility and increasing childlessness in countries such as Japan or South Korea have been linked to the increasing demands of the educational systems in these countries (e.g., Fleckenstein and Lee 2019).

2.3. Summary and Research Question

To conclude, prior research has provided strong evidence on an intensification of parenting along several dimensions, including investments in time, financial investments, and investments in children's education (Bianchi 2000; Craig et al. 2014; Doepke and Zilibotti 2019; Hays 1996; Vincent and Maxwell 2016). The results of the existing studies also suggest that parents' investments in their children have become increasingly unequal (Kouros et al. 2017; LeMoyne and Buchanan 2011; Padilla-Walker and Nelson 2012; Schiffrin et al. 2014). Much of this research was conducted among parents in couple households. Although the time pressures faced by single parents have been addressed in this literature (Bakker and Karsten 2013; Hertz and Ferguson 1998; Kendig and Bianchi 2008), very little attention has been paid to how parental separation and family diversity are related to the intensification of parenthood. A glaring gap in the literature is that non-resident parents have been completely left out of this discourse.

Another gap in the existing literature is that most of the previous studies on the intensification of parenthood were conducted in the Anglo-American context. In these countries, a strong association between societal inequalities and investments in children has been found (e.g., Schneider et al. 2018). However, it is less clear whether these findings translate well to other contexts where social inequality has risen less sharply. In contrast to the Anglo-American context, most welfare states in continental Europe have a public education system that is used by students of all socioeconomic classes. Furthermore,

many European countries have enacted family policies aimed at alleviating some of the time pressures families face, and at reducing social inequalities between families. In the following, we present novel evidence for the case of Germany. We examined three dimensions of parental pressures: time pressure, financial pressure, and pressure that comes from the educational system. We investigated how the patterns of parental pressures differ by socioeconomic background and family form. In addition to distinguishing between lone parents and parents in couple families, we also paid special attention to the parenting pressures experienced by non-resident parents.

3. The German Context

3.1. Policy Context and Parental Time Use

In the international literature, Germany has commonly been classified as a conservative and familialistic welfare state that supports the single-earner model (Esping-Andersen 1999). The main policies that underpin this system are the option of joint taxation for married partners, the free coverage of the non-working spouse in the public health care system, and the tax exemption for marginal employment. Although these policies are still in place, family policies in Germany have undergone radical changes in recent years. In 2007, Germany introduced an earnings-related parental leave benefit, which was largely copied from the Swedish parental leave system (Leitner et al. 2008). Since 2005, the child care infrastructure in Germany has been significantly expanded. Unlike in countries such as the UK, which has a day care system that is mainly private, in Germany, child care is relatively inexpensive, and is mostly free of charge for low-income households. In 2013, a legal right to a public day care slot for all children aged one year or older was introduced, which further accelerated the already positive trend toward the use of public day care institutions. Figure 1 shows that only 8% of children under age three were in day care in 2006. By 2016, this share had risen sharply to 28%, which represents a 250% increase in a period of only 10 years. Partly as a legacy of the socialist era, child care has always been more widely available in eastern Germany (former German Democratic Republic) than in the western states of Germany. Against that background, the increase in child care usage has been less steep in eastern than in western Germany. For older preschool children (ages 3–5), the usage of public child care has become almost universal, and there have been no major changes in enrolment in the most recent years. However, many of the day care slots are used on a part-time basis only. While Germany has made tremendous advances in supporting the parents of children under age three, it offers less support to parents of older children. As many schools are still only part-time, parents often face considerable difficulties in arranging child care after their children enter primary school (Alt et al. 2019; Hüsken 2015).
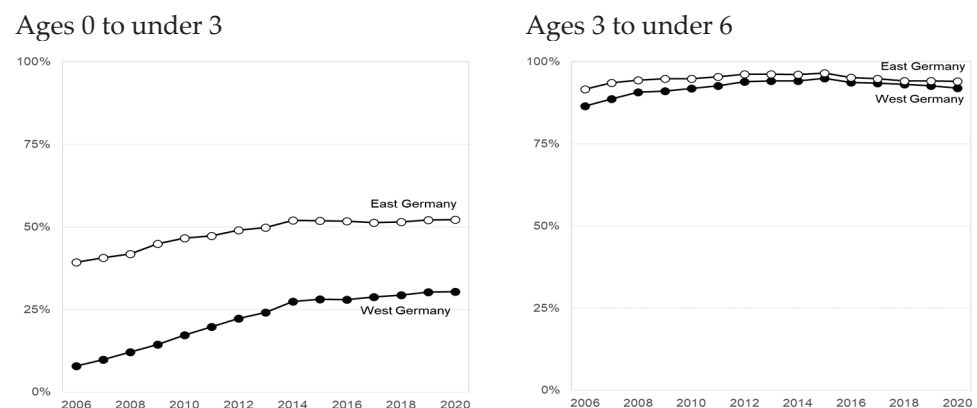
Figure 1. Usage of public day care by region and age of children. Source: Data compiled based on various publications of the German Statistical Office by akjstat. Note: These statistics include institutional child care as well as publicly funded child minders (Tagespflege).

The availability of day care shapes parental employment patterns. There is firm evidence that the 2007 reform led to an increase in the full-time employment rates of mothers, particularly in the second year after childbirth (Geyer et al. 2015). The parental leave regulations also included a quota that incentivized the mother and the father to split the leave between them: i.e., the parents would have to forfeit two months of leave if they did not share it. This "daddy quota" seems to have contributed to a rapid increase in the uptake of parental leave by fathers, even though many fathers took short leaves of two months only (Geisler and Kreyenfeld 2018).

Despite these major changes in family policies in recent years, employment patterns have remained strongly gendered in Germany. As Figure 2 (left panel) shows, in 1995–2019, fathers worked roughly 38 h per week, on average. While mothers' working hours increased over this period, mothers were still working only 17 h per week on average, or less than half the number of hours fathers were working. Correspondingly, mothers were spending substantially more time than fathers caring for their children (right panel of Figure 2). While mothers' time investments declined somewhat in the 2005–2009 period—which is the period when the abovementioned reforms were rolled out—fathers' time investments increased. Both fathers and mothers were spending more time with their children on the weekends (see also Samtleben 2019).
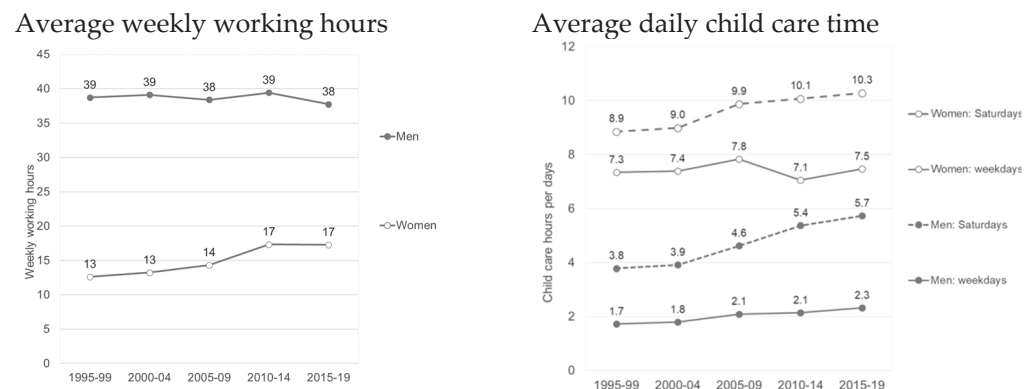
Figure 2. Average weekly working hours and average daily child care hours, women and men with children aged 12 and younger in the household, 1995–2019. Source: SOEP v36, own and weighted estimates (weighted by phrf). Note: Information for the time spent on child care on the weekends is only available every second year starting in 1995. The non-employed were included in the calculation of the mean working hours. Their working hours were set to zero.

Detailed time use data are collected for Germany every 10 years. A comparison of data from 2001/02 and 2012/13 showed that the time parents spent with their children increased over this period, particularly for fathers of children under age three (Klünder and Meier-Gräwe 2018; Meier-Gräwe and Klünder 2015; Walper and Lien 2018, p. 39). Most of the time (roughly 75%) fathers spent with their children was devoted to care activities and play. Compared to fathers, mothers spent more time on "routine tasks" (mothers: 50%, fathers: 36%) and less time on "interactive activities" (Walper and Lien 2018). Both fathers and mothers spent a significant fraction of time on transporting their child to day care, school, or child-related activities (BMFSFJ 2021). These types of time investments increased substantially over the study period. While the time parents spent on educational activities, such as on reading to their children and supporting them in their assignments (for school-aged children), made up only a small fraction of the overall time parents spent with their children, this share did increase slightly over the study period. The average number of minutes per day mothers spent on these activities increased from eight minutes in 2001/2 to 12 min in 2012/13 (for fathers, the corresponding increase was from two to four minutes per day) (BMFSFJ 2021, p. 155; Walper and Lien 2018, p. 39). Differences in the time spent on child care by family status were also reported: i.e., lone mothers spent less time with their children than partnered mothers, controlling for employment status

(Kahle 2004). No evidence exists for non-resident fathers, as this group cannot be identified with German time use data. The results of analyses of the time parents spend with their children by educational background have been mixed. Most studies for Germany have found no association (Berghammer 2013; Dotti Sani and Treas 2016; OECD 2017; Schulz and Engelhardt 2017). However, educational differences in the time spent reading to children have been found, with highly educated parents being especially likely to report that they read to their children (Schulz and Engelhardt 2017).

3.2. Prior Research on the Intensification of Parenting in Germany

Evidence on the "intensification of parenting" is still scarce for Germany. A mainly qualitative study that was commissioned by the Konrad Adenauer Foundation found that there are strong cleavages in parenting practices, with a dividing line running between active parents who consciously educate and intensively support their children, and parents who "let their children's development run its course" (Henry-Huthmacher et al. 2008, p. 8). The study also found that parenting practices are strongly influenced by social background, with parents of higher socioeconomic status being considerably more actively involved in childrearing than parents of lower socioeconomic status. These findings were also corroborated by data from the "Familienleitbild Survey" conducted in 2012. This study used an index of three items to operationalize "engaged parenthood."[1] The findings showed that parental engagement was more prevalent in the western than in the eastern states of Germany, and was strongly correlated with parents' education (Ruckdeschel 2015). In line with this finding, more recent evidence indicates that private schools are becoming more common in Germany, particularly in the east (Görlitz et al. 2018). Moreover, the probability that a child attends a private school was found to be strongly correlated with the parents' educational background.

Although these studies provided some insights into the role of socioeconomic determinants of family behavior, they paid little attention to the family context. The abovementioned time use research only reflected the patterns of parents who were living with their children. By contrast, there are no official data on the time use and parenting practices of non-residential parents.

3.3. Research Aims and Hypotheses

Our research adds to the sparse literature that exists on the "intensification of parenting" in Germany by analyzing parents' subjective parenting pressures. For that purpose, we used novel data from the study "Parenthood Today", which was conducted in 2019 in conjunction with the German Family Report. The data included item batteries that survey parents' subjective assessments of the pressures and the demands that they experience today. We focused on three areas: namely, (1) time pressure, (2) financial pressure reflecting rising demands for financial investments in children, and (3) pressure resulting from increasing demands on parental support for the education and promotion of their children. It is important to point out that time pressure referred to the pressure currently felt, whereas financial pressure and pressure from the educational system referred to changes across time.

Our data are cross-sectional, and thus focus only on subjectively perceived changes in pressures over time. Still, they complement more objective trend data in an important way. First, while these reported pressures are based on subjective assessments, they may have "real effects", as they can influence parental well-being and self-confidence. Secondly, examining "risk groups" and their subjective parenting pressures provides important insights for policy makers and counselors.

We examined two broad hypotheses. (1) We expected the majority of parents to experience increasing pressures in these three abovementioned domains (*intensification hypothesis*). (2) Assuming a widespread change of parenting norms across social groups as has been shown for the U.S. (Ishizuka 2019), we hypothesized that increasing pressures would be more strongly experienced by parents who lack the resources to follow this trend (*resource mismatch hypothesis*). For example, behavioral changes towards intensive

parenting have been shown to be more likely among highly educated parents (see Section 2). However, pressures of intensive parenting norms should be felt more strongly by parents with lower education, because they are less able to conform to these norms.

Apart from the differences by level of education, we also examined whether patterns differed by family form. Unlike prior research in this area, we included non-residential fathers in addition to two-parent families and single mothers. Perceived pressures were expected to be higher among single mothers than among mothers in couple households. We further hypothesized that the time and financial pressures of fathers would resemble those of mothers when controlling for employment status. Furthermore, we expected that the time spent working competes with the time available for child care, resulting in higher levels of time pressure among full-time employed parents.

4. Materials and Methods

4.1. Data and Analytical Sample

In the context of preparing the Ninth Family Report for Germany, the Institute for Demoscopy Allensbach was commissioned to conduct a nationwide study of parents of minor children in Germany. The objective of this survey was to gain insights into how parents experience parenthood today, and whether they believe that there have been any changes in the pressures, norms, and demands associated with "good parenting." For this purpose, personal interviews were conducted in October and November 2019 with a representative sample of German-speaking mothers and fathers with at least one child under 18 years of age in the household. In addition, a subsample of 160 interviews were conducted with separated fathers who were not (or were no longer) living with their children (two-stage quota selection). To make these data compatible with structural data from official statistics, they were factorially weighted (Institut für Demoskopie Allensbach 2020). The total survey sample consisted of 1688 respondents. For this investigation, we removed the small number of single fathers and non-resident mothers (as the sample size would have been too small to allow for a separate analysis of this group). After removing invalid information on the key variables of interest (see below), the analytical sample included 1652 cases. For further sample statistics, see Section 4.3 below.

4.2. Indicators

The main outcome variable used to measure *parents' time pressure* was a binary variable that distinguished between respondents who stated that they do not have enough time to engage with their children, and respondents who either reported that they have enough time, or said that they are undecided about this issue ("Taken everything together, do you have enough time for your child/ren? Or is there too little time?"). *Financial* pressure was measured with a binary variable based on a question that asked respondents whether they believe that raising children has become more expensive ("It is more expensive to have children nowadays than it was in the past."). The *pressure from the educational system* was measured using a binary variable that indicated whether the respondents believe that the demands of the educational system have increased ("The demands on children's education and support have increased significantly."). Note that the two latter questions have a retrospective element, as they prompt the respondent to compare their current situation to the past. However, as the "past" is not further specified, it is unclear whether the respondents were comparing their parental situation with that of their own parents, or with their own experiences in earlier times.

One key independent variable of interest was the family form. We distinguished between (1) men in couple households, (2) women in couple households, (3) lone mothers, and (4) non-residential fathers. Non-residential fathers were defined as men who had children (under age 18) from a prior partnership, but who were not sharing a household with them. These men may, however, have been living with a new partner. Lone mothers were women who were sharing a household with their child or children (under age 18), but not with a partner. The men and women living in couple households were parents

who were sharing a household with their partner and their child or children (under age 18). Note that we did not differentiate between nuclear and stepfamily couple households or married and cohabiting families. While considering these families separately would have provided important additional dimensions of family diversity, the numbers of stepfamilies and cohabiting families were too small to allow us to do so. Same-sex couples with children, who also would have provided an additional important dimension of family diversity, were not part of this study. Furthermore, lone fathers and non-resident mothers were not included in our sample due to small sample sizes (see above).

The socioeconomic background was operationalized over the level of education, distinguishing between low ("Hauptschule" or less), medium ("Realschule" or equivalent), and high ("Abitur" or "Fachhochschulabschluss") levels of school education. The employment status distinguished between full-time employed (35 h or more), part-time employed (less than 35 h), and not working at the time of the interview. Age of the youngest children was included in the models as a categorical covariate (ages 0–2, 3–5, 6–11, 12–17 years). We also took into account the number of children of the respondent (one, two, three or more). Given the regional variations in family forms and maternal employment, we also considered whether a respondent was living in the eastern or western part of the country.

4.3. Sample Statistics

Table 1 reports the sample statistics broken down by family form (fathers and mothers in couple households, single mothers, and non-resident fathers). The table shows that non-resident fathers and lone motherhood were more prevalent in eastern than in western Germany. Lone mothers, and to a lesser extent also non-resident fathers, were more likely to have only one child than fathers and mothers in couple households. As expected, the age of the youngest child was lowest in the couple households. We also observed a pronounced educational gradient. Lone mothers had lower educational levels than mothers in couple households. The differences between men in couple households and non-residents fathers were less pronounced. However, a larger fraction (52%) of the fathers in couple households than of the non-resident fathers (46%) had a high school degree. We also found large differences by gender in employment behavior. Only 25% of women, compared to 91% of men, in couple households worked full-time. Moreover, 87% of non-resident fathers were full-time employed. Lone mothers were more likely to be full-time employed (44%) than mothers in couple households but were much less likely to be full-time employed than non-resident fathers.

Table 1. Sample statistics by family form (in column %).

	Couple Households		Non-Resident Fathers	Lone Mothers
	Fathers	Mothers		
Region				
Western Germany	82	78	77	73
Eastern Germany	18	22	23	27
Number of children				
One child	43	40	45	65
Two children	43	42	40	25
Three children	14	18	15	9
Age of youngest child				
Age 0–2	29	27	6	13
Age 3–5	20	20	14	20
Age 6–11	29	30	39	29
Age 12–17	23	23	41	39
Education				
Low	15	15	16	22
Medium	33	38	38	44
High	52	47	46	34
Employment				
Full-time	91	25	87	44
Part-time	6	50	6	41
Not employed	3	25	8	15
N	624	707	161	160

5. Results

5.1. Descriptive Findings

Table 2 reports descriptive findings for the three outcome variables. The share of parents who said they feel time pressure (average of 67%) was similar to the share of parents who reported experiencing increased financial pressure (average of 64%) and educational pressure (average of 69%). Although the averages were similar, there were substantial variations across family forms and parental educational levels.

Regarding time pressure, the results showed that women in couple households rarely reported that they do not have enough for their children (26%), whereas men in couple households more often reported experiencing time conflicts (45%). Moreover, slight majorities of both lone mothers and non-resident fathers (both 52%) indicated that they feel that they do not devote enough time to their children. While there were large and significant differences between family forms (tested by a chi-square independence test), parents' education did not seem to be associated with perceptions of time conflicts.

Perceptions of financial pressure were found to vary significantly by educational level (tested by a chi-square independence test). As expected, parents with low levels of education were more likely to report that their financial pressures had increased. Regarding variations by family form, differences between single mothers and mothers in couple households proved significant (test of equivalence of proportions).

Regarding the pressure from the educational system, parents with low educational resources said they feel slightly more pressure from the educational system than parents with medium or high education. Rather surprisingly, we found that women in couple households expressed more concern about the demands of the educational system than did parents in other family forms. Indeed, mothers in couple households reported worrying much more about pressure from the educational system than about time or financial pressures. For separated parents, financial concerns trumped concerns about pressure from the educational system.

Table 2. Concerns about having too little time for children (TIME), concerns that financial requirements have increased (MONEY), concerns that educational requirements have increased (EDUCATION), in %.

	Time	**Money**	**Education**
Family form			
Man: Couple household	45	63	65
Woman: Couple household	26	64	72
Woman: Lone mother	52	73	69
Man: Non-resident father	52	67	65
Education			
Low	34	72	72
Medium	38	68	68
High	36	57	68
Total	67	64	69

Note: Weighted estimates.

5.2. Multiple Regressions

5.2.1. Analytical Strategy

In the following, we present results from logistic regressions that model the determinants of intensified parenthood. As above, we distinguished between the three types of pressure associated with having children, namely the time pressure, the financial pressure, and the pressure from the educational system (TIME, MONEY, EDUCATION). Our main independent variables of interest were the family form and the educational background of the parent. We controlled for region (eastern/western Germany), the child's age, and the number of children of the respondent, as well as for the respondent's employment status. Findings are reported as average marginal effects (AME). The descriptive statistics revealed large differences in time pressure by family form. It is likely that these differences may be

moderated by employment status. For example, one could assume that full-time employed lone mothers are under particularly heavy time pressure as they do not have a partner who can take over child care tasks. For that reason, we also included the interaction of employment status and family form. This allows us to check whether the patterns within the group of employed parents were uniform across family forms. We visualized these AME in a figure to facilitate the interpretation of the results.

5.2.2. Determinants of Parental Concerns

Table 3 reports the results from the logistic regression models. The column labelled "TIME" reports the results with the time demands as outcome variables. The model results confirmed the large differences by family form that were already reported in the descriptive statistics. The model also showed that subjective time pressures were significantly more pronounced in eastern than in western Germany. Surprisingly, the age of the youngest child and the number of children in a household were not found to be associated with parents' feelings that they do not have enough time for their children. Parental education was also shown to have no significant effects on the outcome variable. However, employment was found to be a powerful predictor of the likelihood of parents reporting concerns about spending too little time with their children. For example, the probability of indicating such concerns differed by 41% between not employed and full-time employed parents.

Table 3. Logistic regression model, dependent variable: 1: concerns, 0: no concerns. Average predicted probabilities (AME).

	Time	Money	Education
Family type and gender			
Man: Couple household	0.056	0.001	−0.063 ***
Woman: Couple household	Ref.	Ref.	Ref.
Woman: Lone mother	0.190 ***	0.058	−0.036
Man: Non-resident father	0.094 **	0.022	−0.078 **
Region			
Western Germany	Ref.	Ref.	Ref.
Eastern Germany	0.057 **	0.049 *	−0.076 ***
Age of youngest child			
Age 0–2	Ref.	Ref.	Ref.
Age 3–5	0.057	0.001	0.025
Age 6–11	0.017	−0.001	0.068 *
Age 12–17	−0.016	0.029	0.010
Number of children			
One child	Ref.	Ref.	Ref.
Two children	−0.008	−0.009	0.029
Three children	−0.009	−0.036	−0.059 *
Education			
Low	Ref.	Ref.	Ref.
Medium	0.011	−0.070 **	−0.022
High	0.013	−0.154 ***	−0.036
Employment			
Full-time	Ref.	Ref.	Ref.
Part-time	−0.228 ***	−0.021	−0.009
Not employed	−0.411 ***	−0.010	−0.007

Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Findings on parents' perception that raising children has become more expensive are reported in the column "MONEY". While the descriptive statistics suggested that lone mothers were most likely to experience an increase in child costs, the multiple regression showed that this difference in financial pressure by family form was no longer significant when accounting for socioeconomic resources, which differ by family form. Like in most other countries, lone mothers in Germany are less likely than partnered mothers to have a high educational degree (see also Table 1). These background variables seem to be important for understanding lone mothers' financial concerns about increasing child costs. The table

shows that compared to the reference group of low educated parents, the probability of experiencing increasing child costs was 7% lower for the medium educated parents and was 15% lower for the highly educated parents. The model also found that eastern German parents were more likely to be concerned over a rise in children's costs than parents in western Germany. The other covariates did not have a significant effect on the outcome variable.

The third model (column "EDUCATION") analyzed the pressure that comes from the educational system. In line with the prior descriptive findings, the regression model supported that women in couple households were more likely to feel education-related pressure than resident and non-resident fathers. Respondents in eastern Germany, as well as parents with three or more children (compared to parents with only one child), proved less concerned about education-related pressure, possibly because other concerns, such as financial worries, crowded out their concerns about education. The child's age also mattered. Parents with primary school-aged children (ages 6–11) were more concerned than parents with younger and older children. As children's performance in primary school grades determines which school track they are assigned to at the secondary level in Germany, this phase seems to be particularly stressful for parents.

In a final step, we estimated an interaction model of employment status and family form. We did so to examine whether certain constellations, such as lone and full-time employed mothers, reported being under additional time pressure. As the sample sizes of part-time employed and non-working fathers were rather small, we had to group part-time and non-working into one category. Figure 3 reports the average predicted probabilities (AME) from this investigation. The figure clearly shows that the full-time employed parents were the most likely to report not having enough time to support their children than other parents (part-time and not employed parents). Of these parents, lone mothers, but also non-resident fathers, were especially likely to express concerns. Roughly 70% of the full-time employed lone mothers and 60% of the full-time employed non-resident fathers said they feel they cannot devote enough time to their children. By contrast, only about 20% of non-working or part-time employed mothers in couple households reported that they worry that they are spending too little time with their children. Although the interaction model is insightful, it should be noted that according to the likelihood ratio test the interaction did not improve the fit of the model significantly.
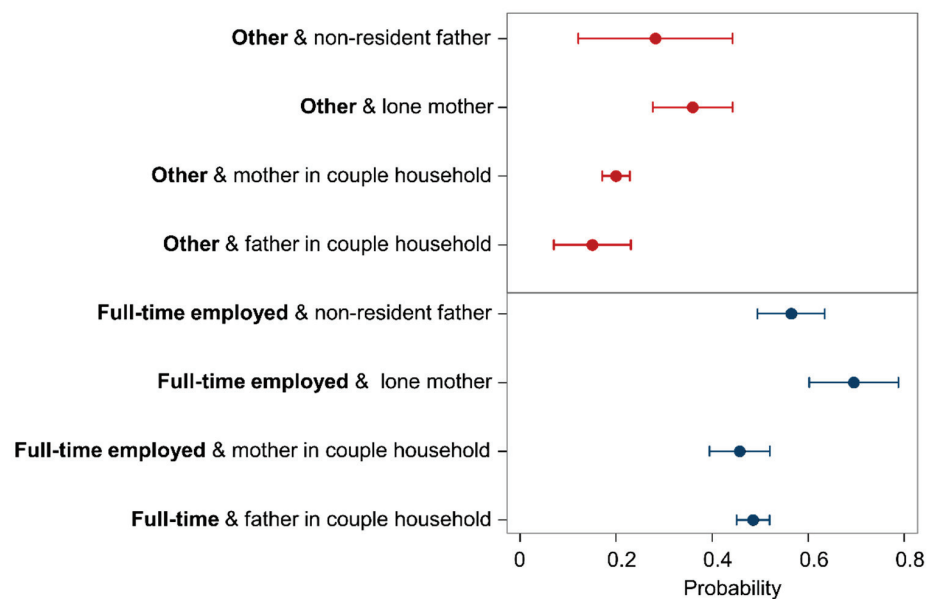
Figure 3. Average predicted probabilities from logistic regression model and 95%-confidence bounds, dependent variable: 1: concerns, 0: no concerns. Note: Effects were controlled for parental education, number of children, age of children, region.

6. Summary and Conclusions

6.1. Discussion of Findings

This paper has contributed to the literature on the intensification of parenting by providing novel evidence based on data from the "Parenthood Today" survey, which was conducted in 2019 in conjunction with the German Family Report (BMFSFJ 2021). Focusing on parents' perceptions of pressures which result from rising child costs, increasing demands to support children's education, and appropriate time investments in children, we expected that the majority of parents would experience increasing pressures in these domains of parenting (*intensification hypothesis*). Furthermore, we hypothesized that parents with fewer resources would be more likely to experience an increase in pressures than more advantaged parents (*resource mismatch hypothesis*). We examined differences by parental education, but also paid special attention to differences by family form. In contrast to prior research in this area, our analyses included non-resident parents in addition to parents in couple households and lone parents. The "Parenthood Today" study was uniquely suitable for this purpose, as it included an oversample of non-resident fathers.

In line with the intensification hypothesis, the overwhelming majority of parents said they feel that the pressures they are experiencing are greater today than they were in the past. However, regarding the resource mismatch hypothesis, we did not find consistent patterns by socioeconomic background. Whereas low educated parents, compared to parents with higher education, reported experiencing a greater increase in financial pressure due to increasing child costs, they did not say that they feel more time pressure or more pressure from the educational system. Hence, these findings are not in line with the resource mismatch hypothesis. Overall, our results did not align with previous findings from the Anglo-American literature, which showed that the pressures associated with the labor market and the educational system translated into marked differences in parents' perceptions and behavior depending on their socioeconomic background. One of our findings that may be seen as alarming was that parents with children of primary school age were more likely than other parents to report feeling pressure from the educational system. A particular feature of the German system is that educational tracking happens early, toward the end of primary school (typically in grade 4, when children are around age 10). Our results suggested that this tracking may place pressure on parents.

A clear finding from our investigation was that the time pressures reported by parents differed substantially by family form. Lone mothers, but also non-resident fathers, expressed considerable concerns that they are unable to spend sufficient time with their children. When we distinguished subgroups based on family form and parents' working hours, we found that full-time employed lone mothers and non-resident fathers were the groups who reported experiencing the most acute time pressure. With the expansion of public child care, the conditions for combining work and family life have greatly improved in Germany. At the same time, female employment rates have increased. Unlike in the Anglo-American countries, where the employment rates of lone mothers often lag behind those of partnered mothers, the patterns are reversed in Germany. Compared to partnered mothers, lone mothers were more likely to work full-time, which is likely to reduce their time available for childcare.

However, non-residential fathers also reported experiencing greater pressures than resident fathers, even though most of the men in both groups were working full-time. This finding may be seen in the context of the legal barriers to shared physical custody in Germany, which have made this custody arrangement relatively rare in Germany (Walper et al. 2021a). Yet we should also note that the self-image of separated fathers in Germany has been changing rapidly, as these fathers are increasingly demanding a more solid and flexible legal basis for remaining involved in the lives of their children after separation. Currently, various proposals to reform physical custody so that non-resident parents can spend more time with their children are under review (Walper et al. 2021b). While engaged fatherhood is on the rise, it is very uncommon for fathers to reduce their working hours to take care of their

children, regardless of whether they are separated or in a union. This may result in fathers experiencing greater tension between their role as a provider and as a carer.

6.2. Limitations

Our study has highlighted the importance of integrating non-resident parents into the debate on the intensification of parenthood. However, it also had several limitations. Most importantly, our analysis was cross-sectional only and relied on subjective perceptions of change. Respondents were asked to evaluate whether they feel that that the pressures they are currently experiencing are greater than in the past. This is obviously a very subjective way of assessing time trends in parenting. Nevertheless, the high prevalence of increases in pressures perceived by parents are in line with more objective data and reflect important aspects of parents' experiences in the parenting role. Another limitation of our investigation was that we focused on three broad categories of parental investments (namely: time, money, education). Such a broad approach provided a good overview of different dimensions of parenting, but it does not account for the many nuanced ways that parents invest in their children. For example, although parents with low education experienced similar time pressure to highly educated parents and may have spent the same amount of time with their children, other research has shown that highly educated parents are more likely to use the available time to involve their children in stimulating educational activities (e.g., Davis-Kean et al. 2021; Dermott and Pomati 2016).

More detailed data, such as time use surveys, are better suited than our data to unravel parents' multi-faceted time investments in their children. German time use surveys are collected every 10 years. Sadly, it is not possible to identify non-residential parents in the German data. Thus, we cannot measure the time investments and time pressures of non-resident fathers using these data. We hope that our analysis inspires efforts to collect better data in future rounds of time use surveys that include not only detailed information on time use, but also appropriate measures of family diversity.

6.3. Implications for Parenting and Parent–Child Relationships in the 21st Century

The wide spread of intensive parenting norms bears chances for children, whose wellbeing and development may benefit from increased parental investments. However, it also bears risks, not only for children, but even more so for parents. If parental involvement is not adjusted to children's growing competencies and needs for autonomy, children's self-reliance and development of personal responsibility may suffer (e.g., Perry et al. 2018). For parents, tight social norms of involved parenting combined with difficulties to meet these demands are likely to contribute to increasing parental pressures, as supported by our analysis. Pressures to be perfect in the parenting role have been linked to elevated levels of parental stress and compromised feelings of competence and wellbeing (Meeussen and Van Laar 2018). Counselors face the challenge of balancing two competing goals: on the one hand the goal to promote parents' skills and competencies in child rearing, and, on the other hand, the goal to shield parents from stress, which may compromise their self-confidence. Our findings suggest that these pressures are not limited to parents with fewer resources. In fact, time pressure and the pressure to promote children's education were similarly felt by parents of all educational groups. Also, among couples, pressures were not more pronounced for mothers than for fathers. This may indicate that the intensification of parenting also concerns fathers (including non-residents ones) who should be better addressed and involved in parenting support and counseling.

Informed Consent Statement: Informed consent was obtained from all respondents of the survey "Elternschaft heute" by the Survey Agency (Institute for Demoscopy Allensbach).

Data Availability Statement: The data of the survey "Elternschaft heute" is available for re-analysis upon request from the survey agency (Institute for Demoscopy Allensbach; Email: whaumann@ifd-allensbach.de). Stata-code is available upon request from the authors.

Conflicts of Interest: The authors declare no conflict of interest.

Note

1. The items were: (1) "Parents should completely put aside their own needs for their children"; (2) "Children grow up anyway, you don't have to worry so much"; and (3) "Parents can do a lot of things wrong when it comes to parenting, so they need to inform themselves well".

References

Alt, Christian, Jeffrey Anton, Benjamin Gedon, Sandra Hubert, Katrin Hüsken, Kerstin Lippert, and Valerie Schickle. 2019. *DJI-Kinderbetreuungsreport 2019. Inanspruchnahme und Bedarfe aus Elternperspektive im Bundesländervergleich*. München: Deutsches Jugendinstitut, Available online: https://www.dji.de/fileadmin/user_upload/bibs2020/DJI-Kinderbetreuungsreport_2019.pdf (accessed on 11 March 2022).

Altintas, Evrim. 2016. The widening education gap in developmental child care activities in the United States, 1965–2013. *Journal of Marriage and Family* 78: 26–42. [CrossRef]

Bakker, Wilma, and Lia Karsten. 2013. Balancing paid work, care and leisure in post-separation households: A comparison of single parents with co-parents. *Acta Sociologica* 56: 173–87. [CrossRef]

Baumrind, Diana. 2013. Authoritative parenting revisited: History and current status. In *Authoritative Parenting: Synthesizing Nurturance and Discipline for Optimal Child Development*. Edited by Robert E. Larzelere, Amanda Sheffield Morris and Amanda W. Harrist. Washington, DC: American Psychological Association, pp. 11–34.

Berghammer, Caroline. 2013. Keine Zeit für Kinder? Veränderungen in der Kinderbetreuungszeit von Eltern in Deutschland und Österreich/No time for children? Changes in parents' child care time in Germany and Austria. *Zeitschrift für Soziologie* 42: 52–73. [CrossRef]

Bianchi, Suzanne M. 2000. Maternal employment and time with children: Dramatic change or surprising continuity? *Demography* 37: 401–14. [CrossRef]

Bianchi, Suzanne M., Philip N. Cohen, Sara Raley, and Kei M. Nomaguchi. 2004. Inequality in parental investment in child-rearing: Expenditures, time, and health. In *Social Inequality*. Edited by Kei M. Neckerman. New York: Russell Sage, pp. 189–220.

BMFSFJ. 2021. *Eltern Sein in Deutschland—Ansprüche, Anforderungen und Angebote bei Wachsender Vielfalt. Empfehlungen für Eine Wirksame Politik für Familien. 9. Familienbericht*. Berlin: Bundesministerium für Familie, Senioren, Frauen und Jugend.

Conger, Rand D., Katherine J. Conger, and Monica. J. Martin. 2010. Socioeconomic status, family processes, and individual development. *Journal of Marriage and Family* 72: 685–704. [CrossRef]

Craig, Lyn, Abigail Powell, and Ciara Smyth. 2014. Towards intensive parenting? Changes in the composition and determinants of mothers' and fathers' time with children 1992–2006. *British Journal of Sociology* 65: 555–79. [CrossRef]

Davis-Kean, Pamela E., Lauren A. Tighe, and Nicholas E. Waters. 2021. The role of parent educational attainment in parenting and children's development. *Current Directions in Psychological Science* 30: 186–92. [CrossRef]

De Woolff, Marianne S., and Marinus H. van IJzendoorn. 1997. Sensitivity and attachment: A meta-analysis on parental antecedents of infant attachment. *Child Development* 68: 571–91. [CrossRef]

Dermott, Esther, and Marco Pomati. 2016. 'Good'parenting practices: How important are poverty, education and time pressure? *Sociology* 50: 125–42. [CrossRef]

Doepke, Matthias, and Fabrizio Zilibotti. 2019. *Love, Money, and Parenting: How Economics Explains the Way We Raise Our Kids*. Princeton: Princeton University Press.

Dotti Sani, Giulia M., and Judith Treas. 2016. Educational gradients in parents' child-care time across countries, 1965–2012. *Journal of Marriage and Family* 78: 1083–96. [CrossRef]

Duncan, Greg J., and Richard J. Murnane. 2011. Introduction: The American dream, then and now. In *Whither Opportunity*. Edited by Greg J. Duncan and Richard J. Murnane. New York: Russell Sage, pp. 3–23.

Esping-Andersen, Gøsta. 1999. *Social Foundations of Postindustrial Economies*. Oxford: Oxford University Press.

Faircloth, Charlotte. 2014. Intensive parenting and the expansion of parenting. In *Parenting Culture Studies*. Edited by Ellie Lee, Jennie Bristow, Charlotte Faircloth and Jan Macvarish. New York: Palgrave Macmillan, pp. 25–50.

Faircloth, Charlotte. 2020. Parenting and social solidarity in cross-cultural perspective. *Families, Relationships and Societie* 9: 143–59. [CrossRef]

Fleckenstein, Timo, and Soohyun Christine Lee. 2019. The political economy of education and skills in South Korea: Demoratisation, liberalisation and education reform in comparative perspective. *Pacific Review* 32: 168–87. [CrossRef]

Gauthier, Ann H. 2015. Social class and parental investment in children. In *Emerging Trends in the Social and Behavioral Sciences: An Interdisciplinary, Searchable, and Linkable Resource*. Edited by Robert A. Scott and Stephen. M. Kosslyn. Hoboken: John Wiley & Sons, pp. 1–14.

Gauthier, Ann H., Timothy M. Smeeding, and Frank F. Furstenberg. 2004. Are parents investing less time in children? Trends in selected industrialized countries. *Population and Development Review* 30: 647–72. [CrossRef]

Geisler, Esther, and Michaela Kreyenfeld. 2018. Policy reform and fathers' use of parental leave in Germany: The role of education and workplace characteristics. *Journal of European Social Policy* 29: 273–91. [CrossRef]

Geyer, Johannes, Peter Haan, and Katharina Wrohlich. 2015. The effects of family policy on maternal labor supply: Combining evidence from a structural model and a quasi-experimental approach. *Labour Economics* 36: 84–98. [CrossRef]

Gimenez-Nadal, José I., and Alumdena Sevilla. 2012. Trends in time allocation: A cross-country analysis. *European Economic Review* 56: 1338–59. [CrossRef]

Görlitz, Katja, Katharina Spieß, and Elena Ziege. 2018. Fast jedes zehnte Kind geht auf eine Privatschule—Nutzung hängt insbesondere in Ostdeutschland zunehmend vom Einkommen der Eltern ab. *DIW Wochenbericht* 51–52: 1104–11.

Guryan, Jonathan, Erik Hurst, and Melissa Kearney. 2008. Parental education and parental time with children. *Journal of Economic Perspectives* 22: 23–46. [CrossRef]

Hays, Sharon. 1996. *The Cultural Contradictions of Motherhood*. London: Yale University Press.

Henry-Huthmacher, Christine, Michael Borchard, Tanja Merkle, and Carsten Wippermann. 2008. *Eltern unter Druck. Selbstverständnisse, Befindlichkeiten und Bedürfnisse von Eltern in Verschiedenen Lebenswelten*. Stuttgart: Lucius & Lucius.

Hertz, Rosanna, and Faith I. Ferguson. 1998. Only one pair of hands: Ways that single mothers stretch work and family resources. *Community, Work & Family* 1: 13–37.

Hofferth, Sandra L. 2009. Changes in American children's time—1997 to 2003. *Electronic International Journal of Time Use Research* 6: 26–47. [CrossRef]

Hofferth, Sandra L., and John F. Sandberg. 2001. Changes in American children's time, 1981–97. In *Children at the Millennium: Where Have We Come From, Where Are We Going?* Edited by Timothy Owens and Sandra Hofferth. New York: Elsevier Science, pp. 193–229.

Hüsken, Katrin. 2015. Brüche in der Betreuungskarriere am Schulbeginn: Failien in Ostdeutschland im Vorteil. In *Aufwachsen in Deutschland heute: Erste Befunde aus dem AID:A-Survey 2015*. Edited by Sabine Walper, Walter Bien and Thomas Rauschenbach. München: Deutsches Jugendinstitut, pp. 30–33. Available online: https://www.dji.de/fileadmin/user_upload/bibs2015/DJI_AIDA_gesamt_v03.pdf (accessed on 11 March 2022).

Institut für Demoskopie Allensbach. 2020. *Elternschaft Heute*. Allensbach: IfD-Umfrage 8214, Available online: https://www.ifd-allensbach.de/fileadmin/IfD/sonstige_pdfs/8214_Elternschaft_heute.pdf (accessed on 11 March 2022).

Ishizuka, Patrick. 2019. Social class, gender, and contemporary parenting standards in the United States: Evidence from a national survey experiment. *Social Forces* 98: 31–58. [CrossRef]

Janssen, Ian. 2015. Hyper-parenting is negatively associated with physical activity among 7–12 year olds. *Preventive Medicine* 73: 55–59. [CrossRef] [PubMed]

Kahle, Irene. 2004. Alleinerziehende im Spannungsfeld zwischen Beruf und Familie. In *Alltag in Deutschland. Analysen zur Zeitverwendung. Beiträge zur Ergebniskonferenz der Zeitbudgeterhebung 2001/02 am 16./17. Februar 2004 in Wiesbaden*. Edited by Statistisches Bundesamt. Wiesbaden: Statistisches Bundesamt, pp. 175–93.

Kendig, Sarah M., and Suzanne M. Bianchi. 2008. Single, cohabiting, and married mothers' time with children. *Journal of Marriage and Family* 70: 1228–40. [CrossRef]

Klünder, Nina, and Uta Meier-Gräwe. 2018. Caring, cooking, cleaning—Repräsentative Zeitverwendungsmuster von Eltern in Paarbeziehungen. *Zeitschrift für Familienforschung* 30: 9–29. [CrossRef]

Kohn, Melvin L. 1969. *Class and Confomity: A Study in Values*. Chicago: The University of Chicago Press.

Kornrich, Sabino, and Frank Furstenberg. 2013. Investing in children: Changes in parental spending on children, 1972–2007. *Demography* 50: 1–23. [CrossRef] [PubMed]

Kouros, Chrystyna D., Megan M. Pruitt, Naomi V. Ekas, Romilyn Kiriaki, and Megan Sunderland. 2017. Helicopter parenting, autonomy support, and college students' mental health and well-being: The moderating role of sex and ethnicity. *Journal of Child and Family Studies* 26: 939–49. [CrossRef]

Landry, Susan H., Karen E. Smith, and Paul R. Swank. 2006. Responsive parenting: Establishing early foundations for social, communication, and independent problem-solving skills. *Developmental Psychology* 42: 627–42. [CrossRef]

Lareau, Anette. 2003. *Unequal Childhoods. Class, Race and Family Life*. Berkeley: University of California Press.

Leitner, Sigrid, Ilona Ostner, and Christoph Schmitt. 2008. Family policies in Germany. In *Family Policies in the Context of Family Change. The Nordic Countries in Comparative Perspective*. Edited by Ilona Ostner and Christoph Schmitt. Wiesbaden: VS Verlag für Sozialwissenschaften, pp. 175–202.

LeMoyne, Terry, and Thomas Buchanan. 2011. Does "hovering" matter? Helicopter parenting and its effect on well-being. *Sociological Spectrum* 31: 399–418. [CrossRef]

Li, Song, Guangming Ran, and Xu Chen. 2021. Linking attachment to empathy in childhood and adolescence: A multilevel meta-analysis. *Journal of Social and Personal Relationships*, 1–28. [CrossRef]

Liss, Miriram, Holly H. Schiffrin, Virginia Mackintosh, Haley Miles-McLean, and Mindy J. Erchull. 2013. Development and validation of a quantitative measure of intensive parenting attitudes. *Journal of Child and Family Studies* 22: 621–36. [CrossRef]

Meeussen, Loes, and Colette Van Laar. 2018. Feeling pressure to be a perfect mother relates to parental burnout and career ambitions. *Frontiers in Psychology* 9. [CrossRef] [PubMed]

Meier-Gräwe, Uta, and Nina Klünder. 2015. *Ausgewählte Ergebnisse der Zeitbudgeterhebungen 1991/92 2001/02 und 2012/13. Im Auftrag der Heinrich-Böll-Stiftung*. Available online: https://www.boell.de/sites/default/files/neu-e-paper_1511_zeitbudgeterhebungen_kluender_2aktualisierteausgabe.pdf (accessed on 11 March 2022).

Meins, Elizabeth. 2013. *Security of Attachment and the Social Development of Cognition*. London: Psychology Press.

Nationale Akademie der Wissenschaften Leopoldina, Deutsche Akademie der Technikwissenschaften, and Union der deutschen Akademien der Wissenschaften, eds. 2014. *Frühkindliche Sozialisation. Biologische, Psychologische, Linguistische, Soziologische und Ökonomische Perspektiven*. Berlin: Leopoldina.

OECD. 2017. *Dare to Share—Deutschlands Weg zur Partnerschaftlichkeit in Familie und Beruf*. Paris: OECD Publishing.

Padilla-Walker, Laura M., and Larry J. Nelson. 2012. Black hawk down? Establishing helicopter parenting as a distinct construct from other forms of parental control during emerging adulthood. *Journal of Adolescence* 35: 1177–90. [CrossRef] [PubMed]

Park, Heejung, Jordan A. Coello, and Anna S. Lau. 2014. Child socialization goals in East Asian versus Western nations from 1989 to 2010: Evidence for social change in parenting. *Parenting: Science & Practice* 14: 69–91.

Perry, Nicole B., Jessica M. Dollar, Susan D. Calkins, Susan P. Keane, and Lilly Shanahan. 2018. Childhood self-regulation as a mechanism through which early overcontrolling parenting is associated with adjustment in preadolescence. *Developmental Psychology* 54: 1542–54. [CrossRef] [PubMed]

Rizzo, Kathryn M., Holly H. Schiffrin, and Miriam Liss. 2013. Insight into the parenthood paradox: Mental health outcomes of intensive mothering. *Journal of Child and Family Studies* 22: 614–20. [CrossRef]

Ruckdeschel, Kerstin. 2015. Verantwortete Elternschaft: "Für die Kinder nur das Beste". In *Familienleitbilder in Deutschland. Kulturelle Vorstellungen zu Partnerschaft, Elternschaft und Familienleben*. Edited by Norbert F. Schneider, Sabine Diabaté and K. Ruckdeschel. Opladen, Berlin and Toronto: Verlag Barbara Budrich (Beiträge zur Bevölkerungswissenschaft, Band 48), pp. 191–205.

Samtleben, Claire. 2019. Auch an erwerbsfreien Tagen erledigen Frauen einen Großteil der Hausarbeit und Kinderbetreuung. *DIW Wochenbericht* 86: 139–44. [CrossRef]

Schiffrin, Holly H., Miriram Liss, Haley Miles-McLean, Katherine A. Geary, Mindy J. Erchull, and Taryn Tashner. 2014. Helping or hovering? The effects of helicopter parenting on college students' well-being. *Journal of Child and Family Studies* 23: 548–57. [CrossRef]

Schneewind, Klaus A., and Stefan Ruppert. 1995. *Familien Gestern und Heute: Ein Generationenvergleich über 16 Jahre*. München: Quintessenz.

Schneider, Daniel, Orestes P. Hastings, and Joe La Briola. 2018. Income inequality and class divides in parental investments. *American Sociological Review* 83: 475–507. [CrossRef]

Schulz, Florian, and Henriette Engelhardt. 2017. The development, educational stratification and decomposition of mothers' and fathers' childcare time in Germany: An update for 2001–13. *Zeitschrift für Familienforschung* 29: 277–97.

Segrin, Chris, Alesia Woszidlo, Michelle Givertz, and Neil Montgomery. 2013. Parent and child traits associated with overparenting. *Journal of Social and Clinical Psychology* 32: 569. [CrossRef]

Smyth, Ciara, and Lyn Craig. 2017. Conforming to intensive parenting ideals: Willingness, reluctance and social context. *Families, Relationships and Societies* 6: 107–24. [CrossRef]

Steinberg, Laurence. 2001. We know some things: Parent-adolecent relationships in retrospect and prospect. *Journal of Research on Adolescence* 11: 1–19. [CrossRef]

van den Boom, Dymphna C. 1995. Do first-year intervention effects endure? Follow-up during toddlerhood of a sample of Dutch irritable infants. *Child Development* 66: 1798–816. [CrossRef]

Vincent, Carol, and Claire Maxwell. 2016. Parenting priorities and pressures: Furthering understanding of 'concerted cultivation'. *Discourse: Studies in the Cultural Politics of Education* 37: 269–81. [CrossRef]

Wall, Glenda. 2010. Mothers' experiences with intensive parenting and brain development discourse. *Women's Studies International Forum* 33: 253–63. [CrossRef]

Wall, Glenda. 2018. 'Love builds brains': Representations of attachment and children's brain development in parenting education material. *Sociology of Health & Illness* 40: 395–409. [CrossRef]

Walper, Sabine, and Shih-cheng Lien. 2018. Routinebetreuung und interaktive "Quality Time": Was beeinflusst, wieviel Zeit Väter wie mit ihren Kindern verbringen? *ZfF–Zeitschrift für Familienforschung/Journal of Family Research* 30: 29–49. [CrossRef]

Walper, Sabine, Christine Entleitner-Phleps, and Alexandra N. Langmeyer. 2021a. Shared physical custody after parental separation: Evidence from Germany. In *Shared Physical Custody. Interdisciplinary Insights in Child Custody Arrangements*. Edited by Laura Bernardi and Dimitri Mortelmans. Cham: Springer Nature, pp. 301–24. [CrossRef]

Walper, Sabine, Michaela Kreyenfeld, Miriam Beblo, Kurt Hahlweg, Katja Nebe, Margarete Schuler-Harms, and Jörg M. Fegert und der Wissenschaftliche Beirat für Familienfragen. 2021b. *Gemeinsam Getrennt Erziehen*. Berlin: BMFSFJ, Available online: https://www.bmfsfj.de/bmfsfj/service/publikationen/gemeinsam-getrennt-erziehen-186696 (accessed on 11 March 2022).

Zimmermann, Peter, Markus A. Maier, Monika Winter, and Klaus E. Grossmann. 2001. Attachment and adolescents' emotion regulation during a joint problem-solving task with a friend. *International Journal of Behavioral Development* 25: 331–43. [CrossRef]

Article

Parenting Challenges and Opportunities among Families Living in Poverty

Lana O. Beasley, Jens E. Jespersen, Amanda S. Morris, Aisha Farra and Jennifer Hays-Grudo

1   Department of Human Development and Family Science, Oklahoma State University, Stillwater, OK 74078, USA; jens.jespersen@okstate.edu
2   Department of Psychology, Oklahoma State University, Tulsa, OK 74106, USA; amanda.morris@okstate.edu
3   Department of Counseling and School Psychology, University of Massachusetts Boston, Boston, MA 02125, USA; aisha.farra001@umb.edu
4   Center for Health Sciences, Oklahoma State University, Tulsa, OK 74106, USA; jennifer.hays.grudo@okstate.edu
*   Correspondence: lana.beasley@okstate.edu

Abstract: Poverty-related stressors have been found to impact parenting behaviors which can result in adverse outcomes for children. The current qualitative study focused on understanding the challenges of caregivers (N = 70) living in poverty. The sample was diverse and included mothers, fathers, and grandparents raising grandchildren. Stories of caregivers were gathered to improve the understanding of families living in poverty in an effort to work towards changing how our world supports families that are vulnerable. Results indicate that families experiencing poverty and related risk factors experience challenges in the realm of child safety, education, and racism/prejudice. Families also discussed ways to improve their environment which included increased financial resources, increased access to high-quality healthcare and childcare, and positive environmental change. Note that the current study outlines the complexity of parenting in poverty and that associated challenges are intertwined. Recommendations are made to address systemic barriers at the individual and community level in an effort to better support caregivers experiencing adversity and parenting in the 21st century.

Keywords: parenting; poverty; adversity; resiliency; family support

1. Introduction

In thinking about parenting in the 21st century, many challenges come to mind. Some of these challenges include concepts of individual experiences and how this relates to recent parenting research as well as the impact of the current global coronavirus pandemic. Other ideas relate to the difficulties and opportunities of technology, changing laws and trends around cannabis and other substance use, discipline versus punishment, and other "hot topics" discussed in the popular press regarding parenting. One of the most pressing issues facing millions of families in the United States and around the world in the 21st century is the struggle for families to make ends meet. Families strive to keep their children safe, provide food daily, and deal with stigma and discrimination that reduce their ability to obtain resources for their children. In the United States today, roughly 1 in 5 children live in poverty using the 1960s Federal Poverty Level standard, and 2 in 5 children live in households considered low income, which is twice that level and more comparable to international poverty cutoffs (Schickedanz et al. 2021). Poverty is associated with additional risk factors for children's development. For example, many grandparents are currently raising grandchildren (Hayslip et al. 2015), often due to parents' difficulties with substance abuse, as the opioid epidemic and rates of parental substance use have increased during the pandemic (Czeisler et al. 2020). Immigrant families in the US and around the world face unique struggles and discrimination, and the Black Lives Matter movement and recent

events have brought to light many of the systemic disparities that exist for families of color. Challenges related to substance use and discrimination can deepen poverty or be a precipitate to poverty, reminding us that there is an intersectionality to the myriad of environmental stressors that families face. The current manuscript focuses on findings from the stories of families struggling with these and other challenges, providing evidence from the voices of parents experiencing different types of challenges related to parenting without sufficient basic resources.

Although the 21st century has brought unique and universal parenting challenges, it is important to understand the specific challenges encountered by families raising children living in poverty. These risk factors may include economic stress, substance abuse, neighborhood and family violence, mental health issues, lack of access to appropriate educational programs, children experiencing developmental delays, struggles with health and nutrition, and family literacy issues (Lander et al. 2013; World Childhood Foundation 2020). However, the underlying factor for many of these families is poverty. Although the definition of poverty has been reworked and modified throughout the years, poverty can be defined as "a state or condition in which a person, family, or community lacks the financial resources and essentials for minimum standard of living" (Chen 2022). Poverty creates major parenting challenges by impacting the way parents fulfill their parental role, making it difficult to give full attention to parenting duties (Ahmed and Kingsolver 2005; Banovcinova et al. 2014; Gupta et al. 2007). Economic deprivation can lead to parental depression and stress which directly impacts child well-being (Ahmed and Kingsolver 2005; Banovcinova et al. 2014). Families experiencing poverty are at a higher risk for child maltreatment (Kim and Drake 2018). Further, growing up in poverty directly affects biological systems and can negatively influence important foundations for later mental health (Pryor et al. 2019).

1.1. The Continuing Spread of Poverty

Families living in poverty face mounting and unrelenting pressures and barriers in everyday living that can inhibit personal and family growth and functioning, broadly including inadequate housing, poor community infrastructure, dangerous neighborhoods, limited options for purchasing food and other goods, substance abuse, absence of health insurance, poor educational resources and opportunities, longer commuting distances, and limited opportunities for reliable childcare (Edin and Kissane 2010; McLoyd 2021; Staveteig and Wigton 2000; Vernon-Feagans et al. 2012). Such conditions have been termed chaos indicators, as families who have to frequently make adaptations to meet the basic demands of daily life and family functioning tend to live in more chaotic environments (Evans and Wachs 2010; Roy et al. 2004). These chaos indicators can be crippling for individuals and families, and unfortunately, research suggests that those experiencing the poorest conditions are only falling further behind. For example, Evans and Wachs (Evans and Wachs 2010) found that chaos indicators have been increasing in prevalence among low-income families while remaining relatively stable among middle- and high-income families. Moreover, it has been documented that the concentration of child poverty has increased dramatically in both urban and rural regions of the United States due in part to an outmigration of young upwardly mobile adults from these areas, contributing to a less educated workforce and increased community risk factors (Corbett and Forsey 2017; Johnson and OHare 2004; Mokrova et al. 2017). Additionally, the current state of health and economic disparities in the United States has become more evident during the coronavirus pandemic as reported in a number of studies showing populations with more diverse demographics, lower education and income levels, and higher disability rates experienced hardship and adverse outcomes at disproportionately high levels (Abedi et al. 2021; Khatana and Groeneveld 2020; Lopez et al. 2021).

1.2. Unique Parenting Challenges for Families Living in Poverty

Developmental scholars have suggested that the proximal processes between parents and young children are often in jeopardy for families living under increasingly stressful and chaotic circumstances (Bronfenbrenner and Evans 2000; Conger et al. 2010). Moreover, researchers have posited that poverty-induced disruptions in family functioning could contribute to a number of parenting challenges associated with adverse outcomes for children. Along these lines, studies have shown that economic pressures first tend to affect the marital or partnering relationships and emotional states of caregivers, followed by a diffusion of these pressures into the child's caretaking environment (Mederer 1999; Wray 2015). The penetrating effects of poverty have notable adverse effects on parenting and child outcomes in terms of parental sensitivity and responsiveness. For example, it has been found that poverty-related stressors can promote insecure parent–child attachment relationships and harsher parenting conditions (Conger et al. 2010), contributing to poorer social emotional support and functioning in children (Wray 2015). Moreover, studies have indicated that parents who have high levels of chaos in their lives tend to possess lower levels of parental sensitivity and reduced motivation to take an active role in engaging with their children (Corapci and Wachs 2002; Johnson et al. 2008), as well as increased parental verbal interference, more ignoring of children's communication efforts, and a lower likelihood of giving children objects to play with or explore (Coldwell et al. 2006).

Global research initiatives examining effective parenting behavior have clearly illustrated the substantial advantage of employing balanced, authoritative parenting styles characterized by parental responsiveness, sensitivity, warmth, and communication (Baumrind 1991; Conger and Conger 2002). Poverty, however, has been found to play a significant role in influencing how parents interact with and raise their children (Conger and Conger 2002). As such, it has been found that parents living in poverty are less likely to use nurturing parenting practices and more likely to use authoritarian or inconsistent parenting styles characterized by harsh interactions, including the use of corporal punishment (Wray 2015). Research has shown the deleterious effects of children living in poverty coupled with harsh parenting styles, including exacerbated child behavior problems, such as elevated externalizing behaviors across childhood (Coldwell et al. 2006; Hao and Matsueda 2006; Scaramella et al. 2008). In a study examining the consequences of poverty on parenting and early childhood, Scaramella and colleagues (Scaramella et al. 2008) found harsh parenting and child externalizing problems to be present across three generations, further illustrating the long-lasting effects associated with growing up in poverty. Furthermore, children raised in poverty are more likely to experience early trauma and neglect at the hand of problematic parenting and family relations (Steele et al. 2016). As such, children who grow up in poverty not only carry the burdens of greater health and educational problems but these problems can be perpetuated by maladaptive parenting styles and behaviors (Wray 2015). With the myriad of potential negative impacts of poverty on the family system, it is vital to understand parenting in poverty. Due to the rapidly growing diversity in family make-ups, the current study focused on understanding parenting among a diverse sample of caregivers including mothers, fathers, teenage parents, mothers in recovery from substance use, grandparents raising grandchildren, and Latinx mothers and fathers. Based on the current state of the literature we targeted these family types due to their underrepresentation in research related to poverty (Edin and Kissane 2010; McLoyd 2021). Research associated with parenting issues in different types of families types is outlined in the following section.

1.3. Some Characteristics of Parents Living in Poverty

Adolescent parents. While teen pregnancy rates have been declining in the United States over the past fifty years, rates have remained notably higher among lower-income groups, including minority populations (Hamilton et al. 2015). Furthermore, the highest rates of teen pregnancy occur in states with larger populations of racial/ethnic groups and wider margins of income inequality (Ventura et al. 2014). Due to the elevated social, health, and economic risks associated with teenage parenting, it has received much attention

in terms of research and social and public health policy development (Smithbattle 2018). Despite increased advocacy, teen parents still face enormous challenges that can be difficult to mitigate, particularly among teens living in poverty. For example, low-income teen moms are less likely to gain access to family planning resources (Smithbattle 2018), have limited educational attainment (Bell et al. 2014), and report reduced hope about the future (Fedorowicz et al. 2014).

Parents who are recent immigrants. Along with the traditional challenges that come with raising children, parents who were born abroad, or for whom English is not their language of origin, have been found to experience increased parenting stress, lower self-efficacy, and less adaptive parenting strategies (Abraham et al. 2018). For example, Nam and colleagues (Nam et al. 2015) found that nativity status accounted for 63% of the difference in parenting stress when comparing Latinx and Caucasian mothers. Coupled with higher parenting stress and lower parenting confidence, it has also been documented that recent-immigrant families possess elevated challenges in securing psychological and physical health resources to support their parenting efforts, while also experiencing an adjustment period prior to securing employment upon arrival (Armstrong et al. 2005; Conger et al. 2010; Duncan and Trejo 2012). Moreover, similar parenting studies have shown that linguistic and cultural barriers, including perceived discrimination, can obstruct parents in gaining access to beneficial programs and opportunities (George et al. 2014).

Mothers recovering from substance abuse. In 2019 there were approximately 1.4 million adults who entered substance abuse treatment in the United States (Substance Abuse and Mental Health Services Administration 2019). Studies have suggested that up to 70 percent of women entering substance abuse treatment programs were parents of children under the age of 18 (Greenfield 2002; Rubenstein and Stover 2016). While recovery efforts are encouraging, it has been found that mothers recovering from substance abuse experience unique risk factors including enhanced vulnerability to physiological consequences, increased prevalence of mental health problems, poor nutrition, increased rates of relationship problems, and lower reports of social support (Greenfield 2002; Hernandez-Avila et al. 2004; Niccols et al. 2012). Moreover, addiction treatment and recovery do not erase the long-term effects that substance-induced behavior, domestic violence, poverty, and poor parenting can have on children (Murphy and Ting 2010).

Single parents. Recent data indicates that single-parent households are on the rise in the United States (Coles 2015). While in the past individuals often acted as single caregivers due to divorce or widowhood, recent trends in cohabitation and non-marital births have contributed to non-marital parenthood accounting for over one-third of single households (Coles 2015; Wildsmith et al. 2011). Given the accelerated rates with which single individuals are primary caregivers, increased attention has been given to single-parenting behavior. In many cases, single parents have been found to be adaptive to their single-parenting environment. For example, studies have shown that given the unique expectations and demands of single parenting, fathering behavior tends to override traditional gender differences (e.g., in household work, parental involvement) resulting in single fathers displaying parenting behavior that is more similar than different to that of single mothers (Coles 2015; Hook and Chalasani 2008). Despite these similarities, however, it has been found relatively consistently that single fathers are less likely than single mothers to provide supervision, monitoring, and closeness and intimacy with their children (Bronte-Tinkew et al. 2010; Demuth and Brown 2004).

Grandparents raising grandchildren. Research has shown that grandparents who raise their grandchildren are a positive influence on their grandchildren, particularly among children being raised in poverty (Hayslip et al. 2019). Despite the important role that these grandparents play in the lives of their grandchildren and the associated fulfillment of supporting their grandchild(ren), it has been found that grandparents report feeling removed from their same-age peers, experience increased physical and emotional challenges associated with parenting, experience shame associated with the stigma of raising one's grandchild, and may feel judgment from others regarding their own child's

failures as parents (Hayslip et al. 2019). Moreover, grandchildren of custodial grandparents have been found to possess deficits in emotional, social, and behavioral development compared to normative samples (Harnett et al. 2014). Regardless of these findings, children being raised by their grandparents have been found to function more adaptively than children raised in nonrelative foster care (Hayslip et al. 2019). Finally, despite custodial grandparenting cutting across gender, racial, and ethnic lines, low-income individuals have been found to be disproportionately represented (Fuller-Thomson et al. 1997; McDaniel and Connidis 1990).

Despite the variations in circumstances, needs, and challenges among these family types, poverty is a common set of circumstances that exacerbates the difficulties that families of diverse backgrounds experience. By seeking to understand the perspectives of these families and both their common and unique challenges, we can gain a better perspective for how and where intervention efforts can begin and where they might continue.

1.4. Current Study

It is clear that poverty is a risk factor that confers additional risk among families already experiencing economic and other challenges. It is also evident that to mitigate this risk, we must enhance our understanding of the parenting challenges families face to identify supports that promote resilience. To address these goals, the current qualitative study aimed to understand the challenges a variety of families living in poverty face (i.e., mothers, fathers, teenage parents, mothers in recovery from substance abuse, grandparents raising grandchildren, and Latinx mothers and fathers) when caring for their young children. While numerous studies have examined associations between poverty and individual factors of family life or child development (Banovcinova et al. 2014; Edin and Kissane 2010; Gupta et al. 2007; McLoyd 2021; Pryor et al. 2019), the current study was designed to provide a more comprehensive narrative of the experiences that a variety of parents living in poverty experience on a day-to-day level, with the intent to inform community intervention and policy development for families living with increased risk factors while parenting young children. While qualitative methods have not been traditionally utilized for conducting research related to parenting and poverty at large, qualitative research examining such themes has proven influential and uniquely informative of the realities of parenting in poverty (Edin and Kissane 2010; Schickedanz et al. 2021). The strength of the present study is the ability to capture parents' own experiences related to parenting and raising their families in poverty at the micro-level. Moreover, this study uniquely presents the perspectives and experiences gathered from a diverse sample of parents, including mothers, fathers, grandparents, single parents, parents recovering from substance abuse, and parents from diverse racial and ethnic backgrounds (see Table 1).

Table 1. Participant Demographics (N = 70).

Sample Characteristics	%
Caregivers	
Mothers	54.3
Fathers	28.6
Grandparents	17.1
Number of Children	
1	29.3
2	30.7
3	21.3
Education	
11th Grade or Less	25.4
HS Diploma/GED	25.3
Some College	26.7
Two-Year Degree	8.0
Four-Year Degree	9.3
Graduate Training	2.7

Table 1. *Cont.*

Sample Characteristics	%
Race	
Hispanic/Latino	31
European American	27
African American	19
Native American	10
Asian American	6
Multi-Racial	7
Adolescent Mothers	10
Recovering from Substance Use	9

Note. HS: High School; GED: General Education Development.

2. Materials and Methods

2.1. Participants

A purposive sampling method was used with participants that are caregivers of young children (N = 70). Caregivers included mothers (N = 38), fathers (N = 20), and grandparents raising grandchildren (N = 12) with data collected in the fall of 2016. Poverty status was based on eligibility for state-assisted programs (i.e., WIC-eligible, Head Start eligibility, etc.). Approximately half of the sample (44% of participants) indicated an annual income of USD 20,000 or less with the majority of families having one (29.3%), two (30.7%), or three (21.3%) children. In terms of education completion, 25.4% of participants reported completing 11th grade or lower, 25.3% graduated from high school or had a GED, 26.7% reported some college or technical skills, 8% were graduates of a two-year college program, 9.3% graduated from a four-year college, and 2.7% reported postgraduate work. All participants were invited to participate in the study by phone and given a brief description of the topic of the discussion. Recruitment was conducted by a local marketing firm or research team members.

Overall, the sample was diverse with 31% of caregivers identifying as Hispanic/Latino; 27% as European American; 19% as African American; 10% as Native American; 6% as Asian American/Pacific Islander; 7% as multi-ethnic. Forty-three percent were married and over half of the sample was employed (67%). It is also important to note that 9% of the sample consisted of caregivers recovering from substance use and 10% were adolescent mothers. All demographic information is presented in Table 1.

2.2. Procedure

A total of seven focus groups were conducted with each group ranging in length from approximately 1 to 1.5 h each. Focus groups were conducted by a trained qualitative moderator with all groups including a trained notetaker so that additional discussion could be encouraged if the moderator missed an important area to probe. Interviews were transcribed by a leading transcription company and all transcripts were cross-checked for accuracy by research members. Focus groups with Latinx mothers and fathers were conducted in Spanish with all interviews translated and transcribed by a Spanish-speaking research technician. Additionally, coding for Spanish-speaking transcripts was conducted by a group of Spanish-speaking qualitative team members that also conducted the interviews, to ensure cultural content was not lost in translation. A total of 70 participants were in focus groups with 6–12 participants per group; all data were collected in a mid-sized, southern Midwest city during July and August of 2016.

Focus group participants received a USD 100 gift card to compensate them for their time and a USD 25 gas card to assist with travel expenses to the group. All focus groups were conducted in the evening with a small meal provided for participants. All study data collection and evaluation methods were approved by the University Institutional Review Board (IRB).

Focus group interview guide. An interview guide for focus groups was developed by the lead qualitative researcher and reviewed by the qualitative research team. The interview guide was then reviewed and revised with feedback from collaborative partners. Questions were based on an understanding of previous research that families in poverty can face numerous challenges. Therefore, the purpose of the semi-structured guide was to assess parenting challenges experienced by families living in poverty. Specifically, caregivers were asked about "problems parents face", "things that would make life easier for you and your family", and "immediate needs of your family". Other questions were focused on understanding services that families are aware of within their community and their experience with services. Time was spent with participants explaining the purpose of the study, confidentiality, and their choice to answer or not answer questions, depending on their comfort level. At the beginning of the interview, participants were thanked for their attendance in the focus group and how much the research team appreciated their expert opinions. Participants were also given a general demographic survey prior to participating in the focus groups. It is important to note that the topic of caregiving challenges in today's world emerged as a theme throughout the interviews with all data included in the current manuscript.

2.3. Data Analysis

Qualitative data analysis of the transcriptions was conducted using NVivo 10 software. A template approach (Patton 2002) was used to identify broad themes from the focus group data. This approach involved developing a coding "template" that included hierarchical coding of broad themes, using codes developed before examining the data, and developing an initial template that is applied to the larger set of qualitative data. This iterative process included using content analysis to identify core constructs and themes emerging from the data. More specific themes were also identified and coded as sub-codes within the broader categories using the aforementioned template, or codebook, developed by three to five trained qualitative researchers. Throughout, analysis discrepancies were discussed to ensure the reliability of coding. This approach was used to gain an understanding of the perceptions of participants regarding parenting challenges they have faced. All focus groups were transcribed and cross-checked during analysis to verify accuracy. Importantly, initial themes were explored for different focus groups and categories of caregivers, and because similar themes emerged across groups all data were combined for coding and analysis. Themes are described below with representative quotes to illustrate key findings.

3. Results

3.1. Problems Parents Face

Child Safety Concerns. Caregivers indicated, in high frequency, types of child safety concerns. A specific concern was issues with living in "bad neighborhoods" that led to situations that created safety concerns for families with one caregiver explaining that "it's pretty routine that we have people—like a SWAT team on our street". Other themes that help illuminate child safety concerns in neighborhoods include fear of outside play, risk of child kidnapping, drive-by shootings, cars speeding through neighborhoods. Regarding drive-by shootings, a caregiver shared, "that's really a big issue . . . because it's a lot of stuff going on at the moment, to where, you know, like, our kids ain't able to go outside and play without somebody drive-by shooting". Another caregiver explained "and I don't know if the kid died, but he got shot, that's the point. And so I told him (my child), you know, that's why I don't like them playing outside . . . " Other caregiver concerns surrounding child safety include distrust of police, not trusting others with their children, and exposure to negative influences. Regarding difficulty trusting others to care for children a family explained, "a daycare worker . . . left a kid in the van, after they went on a field trip". Although it was reported that the child was not severely injured in this situation, the parent explained the fear that is experienced when you realize you cannot trust childcare providers.

Education and Care. Many caregivers reported that education is a problem families face. In terms of childcare and early childhood education, caregivers reported issues in finding affordable, high-quality childcare. Specifically, they discussed issues with finding care when school is out (after hours and summer) and finding childcare programs that have extended hours that fit with variable work schedules. Additionally, the prohibitive cost of high-quality childcare was discussed and the theme of difficulties in finding trustworthy providers emerged again.

In terms of childhood education, families indicated that due to budget cuts, the education system has suffered. Families also reported concerns with their children being bullied within the school setting and schools not being able to support children with disabilities. Large class sizes were discussed as an issue, resulting in children not getting the individual attention they need to learn. Caregivers also reported problems pertaining to reduced bus stops and school violence with one caregiver explaining, "there was a potential kidnapping right by my house—so their kids are stuck in the bus stop from like 7:30 until, I don't know . . . 8:30? The whole time waiting for the bus by themselves. Anything can happen". All of these issues culminated with caregivers explaining the inequality within the educational system and a lack of good educational options for their children. Families discussed this inequality results in negative influences at school and the desire to move to a "better" school district for their child(ren) with many limitations to reaching this goal. One caregiver explained:

> "We're thinking about moving him to another school, one where he can learn better, because since he's little and then because of the influences, because—the influences of the other kids also has a lot to do with it for him, because he even had some bad behavior sometimes, when he didn't have it before".

Racism and Prejudice. Racism can be defined as prejudice, discrimination, or antagonism directed against a person or people on the basis of their membership in a particular racial or ethnic group, whereas prejudice can be understood as a preconceived opinion that is not based on actual experience. Related to racism, parents reported that minorities face explicit and implicit racism within their communities. It was further explained that there is a lack of cultural sensitivity with some families discussing issues of immigration status negatively impacting families. One family shared the trauma of having their children's father deported and another discussed the negative impact immigration status can have on child educational opportunities. An example quotation in this theme includes:

> "To my dismay, a few months ago he was deported . . . we fought and argued but where girls (our children) do not listen . . . now that he was deported . . . it was not divorce what caused the problem of my child . . . and that hurts my heart because you imagine a nine-year-old girl crying in the corners and suffering for their dad, this, sent her to a psychologist, the medicated".

Other areas of prejudice included fathers reporting issues with child custody and difficulties within the court system in obtaining rights to their child(ren). Fathers further disclosed that some judicial systems favor mothers, regardless of their ability to care for the child(ren). This prejudice creates a myriad of issues including potential child safety concerns due to courts not understanding the strengths and weaknesses of each parent as well as decreased father exposure. Fathers also explained they have been stereotyped as less competent caregivers which can make it difficult for them to be respected by society in their parenting role. Additionally, it was explained that this stereotype is even more pronounced towards minority fathers with them being seen as less effective in their parenting role. One father explained, "being an African American, people already look at you and say, 'Hey, you're not gonna be there for your child'. It's like a stereotype, see what I mean".

A prejudice disclosed by grandparents involved issues surrounding their legal rights to their grandchildren. These issues were reflected as difficulties getting medical care and resources. An example quote of a grandparent having difficulty obtaining resources includes:

"So I went down there because I needed a car seat ... they said, 'Well, are you the legal guardian of the child?' I said, 'No, but I have the child every day ... I need a car seat, and I don't have any money right now, 'cause I work with school and so I don't get paid in the summertime' ... they wouldn't give me the car seat".

Grandparents also disclosed a prejudice that they made poor decisions with their children and that is why they are now raising their grandchildren. One grandparent shared that "because we have a stigma that we're the reason our kids are the way—you know what I mean? I mean, realistically it's like we have a stigma".

Women recovering from substance use also discussed prejudice they face that impacts their ability to parent. Some of this prejudice was related to the repercussions of having a felony with a participant explaining:

"Like there's so many things—there's so many barriers to being where you need to be.

It just gets overwhelming. So part of what I hear you say is reducing some of the barriers

like, um, all the stigma surrounding the felony".

One specific repercussion participants shared was the numerous fines associated with a felony that make it difficult for parents to start a new life. It was also shared that "it's hard to actually find housing with having a felony ... you're a felon, you've got these kids, but then you have no assistance to help you get any kind of housing". Another difficulty disclosed was obtaining employment, especially employment that pays higher than the minimum wage. It was explained that all of these issues make it problematic for women in recovery to provide for their families.

It is important to note that all families discussed issues related to prejudice they experienced in their life, often related to living in poverty and their life circumstances. Areas of racism were more strongly shared among families that indicated a minority status.

3.2. What Would Make Life Easier?

Given the aforementioned parenting challenges, it is important to understand what would make life easier for families. Families discussed the need for increased resources related to (a) finances, (b) healthcare/childcare, and (c) the environment.

Financial Resources. One area caregivers identified that would make life easier included having access to financial resources. This included obtaining better-paying jobs which led to a discussion surrounding the need for an increase in the federal minimum wage. Parents also discussed the need for increased financial literacy with a parent explaining:

"At the moment, since me and my husband are struggling to make it for our family, it's like, all I hear is, 'Your credit score is too low'. Yes, I know my credit score is too low. I'm working on it. But there's nothing too much that I can do about the past because my current debt is more important".

Related to financial resources, parents also indicated the desire to improve their education. The discussion included parents wanting access to GED classes, career training, and other educational opportunities.

Healthcare and Childcare. Other themes that emerged included better access to healthcare and high-quality childcare/daycare for children. Specific to childcare, families discussed the need for high-quality care for children with disabilities, before and after school care, and care when children are sick. One caregiver explained:

"I know they're not supposed to take care of our sick kids, but when you're working and you can't leave and you have one hour to go get your child, like sometimes you are not physically able to ... " "Or you could lose your job". "You're gonna lose your job which means you're not gonna be able to support your family and ... I don't know what that solution is, but that has been my obstacle recently".

Environment. Other areas that would improve family life include creating a safer environment for children (e.g., housing, school), affordable/accessible housing, increased access to transportation, and improving the family support system. The theme of increasing the family support system involved needing increased support in the home which includes help with household duties with families reporting wanting a "nanny" or a "housekeeper". It was also discussed that programs need to support families having quality time together with a caregiver sharing, "once a year . . . a program that could let a family go on vacation together, spend that quality time, because I think for a lot of us, our biggest issue is we're working jobs . . . we just don't have that time to really bond with our children".

4. Discussion

The primary goal of the current study was to improve the understanding of the challenges families living in poverty face in parenting in today's world. It is clear from the aforementioned themes that low-income families face a multitude of systemic problems that impact their ability to meet the demands of parenting.

Through connecting the stories that families experience, an underlying theme of the struggles associated with poverty emerged across families from diverse backgrounds and living arrangements. In fact, many families experienced a cycle of poverty that continues to worsen due to social as well as economic inequities. Exposure to violence and crime was intertwined with issues of budget cuts and the impact this had on education. This was perceived as causing a reduction of bus stops with families being fearful that an increase in crime could lead to violence and kidnapping as children must now travel farther or wait extended times to access bus transportation to school. This was also evident in themes emerging for lack of access to high-quality childcare and fear of children being harmed when high-quality care facilities are not available to families. Additionally, this emerged within the theme of not trusting others with their children within school and childcare settings due to reports of children being harmed in care. Despite these fears and concerns, parents are consistently faced with placing their children in unsafe environments and situations that pose a potential threat to their safety and well-being in order to work (Hanson and Carta 1995). While parents may have good intentions to protect their children by limiting their outside play or isolating them from others, this may have serious implications for their health, academic performance, and psychological well-being (Dowdell et al. 2011; Lacey et al. 2014).

Additionally, there was an interconnecting theme between education and racism/prejudice and the intersecting of marginalized identities. Caregivers noted their concerns about their children being bullied, and not being able to receive support for their children with disabilities or special needs. Bourke-Taylor and colleagues (Bourke-Taylor et al. 2010) interviewed eight mothers who had a child with a disability and found that working was not an option for many mothers. Further, it was found that childcare services that can support children with disabilities were non-existent. This is important to outline given that low-income parents are either working full-time or working multiple jobs to meet financial demands (Rispoli et al. 2018). This is especially important for childcare given that caregivers in the present study noted difficulties in finding childcare with extended hours that would fit with their work schedules. Parents experiencing multiple risk factors with children living with disabilities may be faced with untenable decisions when making the choice to either work to meet financial demands or take care of their child(ren). This statement reflects the comments stated in themes related to financial resources, with childcare as a possible solution for caregivers to better support their child(ren).

Many families were cognizant of the inequities within the educational system and the repercussions it may have for their children. One example provided is the large classroom sizes, limiting the individual attention that children need to learn. Studies have noted the benefits that accrue when low-income children who are racially and ethnically diverse are able to engage individually with their teachers (Ferguson et al. 2007; Hamre and Pianta 2005; Sabol et al. 2018). Unfortunately, large classroom sizes may impact the ability of children to

engage with their teachers. Ferguson et al. (2007) found that student engagement is lower for those who are located in low-SES neighborhoods and low-income families. Therefore, if a child does not receive adequate attention, and falls behind in their academics, it is difficult for them to catch up (Reardon 2011). Early childhood programs are the best way to impede these effects (Sabol et al. 2018), but many of our participants noted they are unable to access high-quality early childhood education for their child(ren).

Caregivers also experienced a wide range of racism and prejudice that impact how they and their children are perceived and treated. This was evident by hearing the stories of families who hold a different immigration status, who hold different ethnic/racial identities, and who have different family and caregiving dynamics. Hearing descriptions about the racism and prejudice they experienced demonstrated that even when systems are put in place, workers within the system can deter caregivers from obtaining the support they need to support their child(ren). This is seen in the earlier example, where a daughter was experiencing difficulties with her father being deported and was referred to a psychologist. While a psychologist can be beneficial in addressing mental health concerns, different cultures perceive mental health issues as taboo or hold a stigma against them (Hirai et al. 2021). In addition, cultural sensitivity is needed within practitioners to understand the varying experiences of different ethnically and racially diverse groups. Thus, this example demonstrates that even if accessibility and affordability of services are increased for these populations, service providers may be less than beneficial due to a lack of cultural sensitivity. This cultural sensitivity is also needed for grandparents who have different caregiving roles within their family dynamics and hope to obtain legal rights. Service providers need to understand and acknowledge that caregiving goes *beyond* the biological parents, and grandparents may play the same role (or more of a role) of caregiving within the family (Lent and Otto 2018; Pashos and McBurney 2008; Schneiders et al. 2021; Xu et al. 2017).

Additionally, being a father and caregiver also looks different for families living in poverty with associated risk factors. While it is important to acknowledge they face difficulties in the court system in obtaining rights to their children compared to the mothers, they also perceive being stereotyped as less competent caregivers. Thus, caregiving and parenting may be viewed differently depending on age, gender, and racial/ethnic background. These stereotypes and prejudices can impact the treatment caregivers receive from social services and educational and judicial systems.

One notable finding that is evident from these caregivers is that they are trying to parent the best way they can, but they are struggling to do so given the structural and systemic barriers that are in place. This is evident among caregivers who have experienced a felony and are trying to start a new life with their family but are unable to do so without government assistance. The system punishes them for their previous crimes; thus, impacting their ability to receive services, assistance, or housing. It was also evident among all caregivers interviewed that they are completely dedicated to raising healthy, intelligent children.

It is also important to note that in discussion related to what would make life easier for families, each of the themes that emerged could be tied back to specific challenges except for the theme of racism and prejudice. One hypothesis could be that racism and prejudice are so prevalent within the lives and experiences of families experiencing poverty that it might be viewed as an intangible construct, difficult to directly address. One could also argue that many of the themes that would make life easier could be related to systemic issues related to poverty, as well as racism and prejudice.

These results demonstrate that families living in poverty are combating not only the lack of material resources but a number of societal and systemic issues that are closely intertwined with poverty. Thus, while addressing one challenge may indeed be helpful to these families, it may not solve other related problems.

4.1. Limitations

The first limitation is that this study was conducted in an urban community and may not encompass either similar or unique barriers related to parenting in rural communities. A second limitation is a problem with the generalizability of the findings. The sample includes a diverse representation of caregivers living in poverty, but not all potential groups experiencing poverty were represented (e.g., incarcerated parents), and findings may not be generalizable to families living in poverty outside of the U.S. Indeed, many of the challenges identified by caregivers may be specific to a local context or local policies, and this should be taken into account when relating the findings to families living in poverty more generally.

Another potential limitation is the study was conducted prior to the COVID-19 pandemic. The COVID-19 pandemic has impacted the world in numerous ways and has created a myriad of parenting challenges. Enforced isolation, school closures, and hybrid learning have changed the home environment for many families and the way caregivers parent. COVID-19 has increased economic disparities, psychosocial stress among caregivers, alcohol and substance use among parents, and may have created new problems for families experiencing risk. This is particularly important to emphasize given how the COVID-19 pandemic has altered the way individuals physically engage with each other and experience isolation (de Figueiredo et al. 2021). Therefore, families experiencing adversity may need additional solutions to their challenges. Even so, the current study collected a broad range of stories from diverse families, which vastly enhances our understanding of the issues families face parenting in today's world. Additionally, the wide range of caregivers that we spoke to alluded to many similarities families experience, as well as unique and specific challenges.

4.2. Conclusions

The current study sought to understand the challenges experienced by diverse low-income families as they parent their young children in today's world. Our findings suggest that families living in poverty experience challenges in the areas of child safety, education, and racism/prejudice that are likely to limit their children's health and development. Increased financial resources and opportunities, improved access to healthcare, high-quality schools and childcare, and creating positive e changes within communities, neighborhoods, and home environments were suggested by parents as possible solutions to address their challenges. Given the intersection of many of the challenges experienced by parents living in poverty, policy and program changes that address individual, community, and system-level issues are most likely to be effective. In this respect, the challenges facing low-income parents in the 21st century are remarkably similar to those facing low-income and otherwise marginalized parents of the 20th century. As noted in 1976 by Dr. Ed Ziegler, the first director of the U.S. Office of Child Development and one of the designers of Head Start, "In our nation today children and families all too often come last, and the social barriers to providing a better quality of life for our nation's children have become almost insurmountable" (Morris et al. 2021). It is the hope of these authors, and the parents whose stories they heard, that the 21st century will see an increase in the value we place and the support we provide parents and children.

5. Implications for Parenting in the 21st Century

Parenting in the 21st century holds many challenges for families, and these challenges are potentially greatest among families living in poverty. The following recommendations were formed through the qualitative data gathered in this study in an effort to understand the problems families living in poverty face and what they perceive to be potential solutions. Many of these solutions have implications for the delivery of social services and programs for low-income families, as well as local and federal policies.

One recommendation is to review current policies regarding minimum wage. It is clear that families are not able to support their families with the current minimum wage

salary. This translates to families not having basic needs met (food, shelter, clothing, etc.) which leads to families being challenged in meeting the higher-level needs within the home and environment (attachment, nurturing, educational, etc.).

Another recommendation based on parents' reported concerns is the need to review policies that fund access to high-quality education and care for children and families experiencing poverty and other risk factors. This includes access to high-quality early childhood education programs and after-school programs, as well as access to schools that are able to provide a safe and high-quality level of education. Many parents expressed concern with not having good educational options and the inability to move their family to better school districts due to financial constraints. Therefore, efforts need to ensure that all schools can provide the education and accessible services that children need. In the community we studied, this access also requires improvement in public transportation systems for families. Many families discussed the effects of not having adequate transportation for accessing medical care, educational options (caretaker and child), employment options, and basic needs (groceries, resources, etc.).

Increasing the availability of safe, affordable housing is another recommendation that has a direct impact on children's health and development. Specifically, when children are not provided with safe environments they are not able to play and explore outdoors, preventing the acquisition of skills and independence. Additionally, the negative events that children in violent communities are exposed to relate to the cumulative toxic stress exposure which impacts their short-term and long-term development.

Our last recommendation is to work towards changing the climate of how we approach cultural diversity. Specifically, many families reported living in fear due to oppression of their race, ethnicity, age, gender, prior criminal history, and immigration status. This includes developing and training our judicial, educational, social services, and healthcare systems in trauma-informed practices so that caregivers are supported rather than ostracized or mistreated.

References

Abedi, Vida, Oluwaseyi Olulana, Venkatesh Avula, Durgesh Chaudhary, Ayesha Khan, Shima Shahjouei, Jiang Li, and Ramin Zand. 2021. Racial, Economic, and Health Inequality and COVID-19 Infection in the United States. *Journal of Racial and Ethnic Health Disparities* 8: 732–42. [CrossRef] [PubMed]

Abraham, Eyal, Gal Raz, Orna Zagoory-Sharon, and Ruth Feldman. 2018. Empathy Networks in the Parental Brain and Their Long-Term Effects on Children's Stress Reactivity and Behavior Adaptation. *Neuropsychologia* 116: 75–85. [CrossRef] [PubMed]

Ahmed, Zahid Shahab, and Barbara Kingsolver. 2005. Poverty, Family Stress & Parenting. Available online: http://www.humiliationstudies.org/documents/AhmedPovertyFamilyStressParenting.pdf (accessed on 19 January 2022).

Armstrong, Mary I., Shelly Birnie-Lefcovitch, and Michael T. Ungar. 2005. Pathways between Social Support, Family Well Being, Quality of Parenting, and Child Resilience: What We Know. *Journal of Child and Family Studies* 14: 269–81. [CrossRef]

Banovcinova, Andrea, Jana Levicka, and Martin Veres. 2014. The Impact of Poverty on the Family System Functioning. *Procedia-Social and Behavioral Sciences* 132: 148–53. [CrossRef]

Baumrind, Diana. 1991. Parenting Styles and Adolescent Development. In *The Encyclopedia of Adolescence*. Edited by Jeanne Brooks-Gunn, Richard M. Lerner and Anne C. Peterson. New York: Garland Publishing, pp. 758–72.

Bell, Emily R., Lesley Glover, and Tim Alexander. 2014. An Exploration of Pregnant Teenagers' Views of the Future and Their Decisions to Continue or Terminate Their Pregnancy: Implications for Nursing Care. *Journal of Clinical Nursing* 23: 2503–14. [CrossRef] [PubMed]

Bourke-Taylor, Helen, Linsey Howie, and Mary Law. 2010. Impact of Caring for a School-Aged Child with a Disability: Understanding Mothers' Perspectives. *Australian Occupational Therapy Journal* 57: 127–36. [CrossRef] [PubMed]

Bronfenbrenner, Urie, and Gary W. Evans. 2000. Developmental Science in the 21 St Century: Emerging Questions, Theoretical Models, Research Designs and Empirical Findings. *Social Development* 9: 115–25. [CrossRef]

Bronte-Tinkew, Jacinta, Mindy E. Scott, and Emily Lilja. 2010. Single Custodial Fathers' Involvement and Parenting: Implications for Outcomes in Emerging Adulthood. *Journal of Marriage and Family* 72: 1107–27. [CrossRef]

Chen, James. 2022. Poverty. Available online: https://www.investopedia.com/terms/p/poverty.asp (accessed on 19 January 2022).

Coldwell, Joanne, Alison Pike, and Judy Dunn. 2006. Household Chaos–Links with Parenting and Child Behaviour. *Journal of Child Psychology and Psychiatry* 47: 1116–22. [CrossRef] [PubMed]

Coles, Roberta L. 2015. Single-Father Families: A Review of the Literature: Single-Father Families. *Journal of Family Theory & Review* 7: 144–66. [CrossRef]

Conger, Rand D., and Katherine J. Conger. 2002. Resilience in Midwestern Families: Selected Findings from the First Decade of a Prospective, Longitudinal Study. *Journal of Marriage and Family* 64: 361–73. [CrossRef]

Conger, Rand D., Katherine J. Conger, and Monica J. Martin. 2010. Socioeconomic Status, Family Processes, and Individual Development. *Journal of Marriage and Family* 72: 685–704. [CrossRef] [PubMed]

Corapci, Feyza, and Theodore D. Wachs. 2002. Does Parental Mood or Efficacy Mediate the Influence of Environmental Chaos upon Parenting Behavior? *Merrill-Palmer Quarterly (1982-)* 48: 182–201. [CrossRef]

Corbett, Michael, and Martin Forsey. 2017. Rural Youth Out-Migration and Education: Challenges to Aspirations Discourse in Mobile Modernity. *Discourse* 38: 429–44. [CrossRef]

Czeisler, Mark É., Rashon I. Lane, Emiko Petrosky, Joshua F. Wiley, Aleta Christensen, Rashid Njai, Matthew D. Weaver, Rebecca Robbins, Elise R. Facer-Childs, Laura K. Barger, and et al. 2020. Mental Health, Substance Use, and Suicidal Ideation during the COVID-19 Pandemic—United States, June 24–30, 2020. *Morbidity and Mortality Weekly Report* 69: 1049–57. [CrossRef] [PubMed]

de Figueiredo, Camila Saggioro, Poliana Capucho Sandre, Liana Catarina Lima Portugal, Thalita Mázala-de-Oliveira, Luana da Silva Chagas, Ícaro Raony, Elenn Soares Ferreira, Elizabeth Giestal-de-Araujo, Aline Araujo Dos Santos, and Priscilla Oliveira-Silva Bomfim. 2021. COVID-19 Pandemic Impact on Children and Adolescents' Mental Health: Biological, Environmental, and Social Factors. *Progress in Neuro-Psychopharmacology and Biological Psychiatry* 106: 110171. [CrossRef] [PubMed]

Demuth, Stephen, and Susan L. Brown. 2004. Family Structure, Family Processes, and Adolescent Delinquency: The Significance of Parental Absence versus Parental Gender. *Journal of Research in Crime and Delinquency* 41: 58–81. [CrossRef]

Dowdell, Kellie, Tonia Gray, and Karen Malone. 2011. Nature and Its Influence on Children's Outdoor Play. *Journal of Outdoor and Environmental Education* 15: 24–35. [CrossRef]

Duncan, Brian, and Stephen J. Trejo. 2012. The Employment of Low-Skilled Immigrant Men in the United States. *American Economic Review* 102: 549–54. [CrossRef]

Edin, Kathryn, and Rebecca Joyce Kissane. 2010. Poverty and the American Family: A Decade in Review. *Journal of Marriage and Family* 72: 460–79. [CrossRef]

Evans, Gary W., and Theodore D. Wachs. 2010. *Chaos and Its Influence on Children's Development: An Ecological Perspective*. Washington, DC: American Psychological Association.

Fedorowicz, Anna R., Wendy L. Hellerstedt, Pamela J. Schreiner, and John M. Bolland. 2014. Associations of Adolescent Hopelessness and Self-Worth with Pregnancy Attempts and Pregnancy Desire. *American Journal of Public Health* 104: e133–e140. [CrossRef] [PubMed]

Ferguson, H. Bruce, Sarah Bovaird, and Michael P. Mueller. 2007. The Impact of Poverty on Educational Outcomes for Children. *Paediatrics & Child Health* 12: 701–6. [CrossRef]

Fuller-Thomson, Esme, Meredith Minkler, and Diane Driver. 1997. A Profile of Grandparents Raising Grandchildren in the United States. *Gerontologist* 37: 406–11. [CrossRef]

George, Sheba, Nelida Duran, and Keith Norris. 2014. A Systematic Review of Barriers and Facilitators to Minority Research Participation among African Americans, Latinos, Asian Americans, and Pacific Islanders. *American Journal of Public Health* 104: e16–e31. [CrossRef] [PubMed]

Greenfield, Shelly F. 2002. Women and Alcohol Use Disorders. *Harvard Review of Psychiatry* 10: 76–85. [CrossRef]

Gupta, Rita Paul-Sen, Margaret L. de Wit, and David McKeown. 2007. The Impact of Poverty on the Current and Future Health Status of Children. *Paediatrics & Child Health* 12: 667–72. [CrossRef]

Hamilton, Brady E., Joyce A. Martin, Michelle J. K. Osterman, Sally C. Curtin, and T. J. Mathews. 2015. Births: Final Data for 2014. *National Vital Statistics Reports* 64: 1–64.

Hamre, Bridget K., and Robert C. Pianta. 2005. Can Instructional and Emotional Support in the First-Grade Classroom Make a Difference for Children at Risk of School Failure? *Child Development* 76: 949–67. [CrossRef] [PubMed]

Hanson, Marci J., and Judith J. Carta. 1995. Addressing the Challenges of Families with Multiple Risks. *Exceptional Children* 62: 201–12. [CrossRef]

Hao, Lingxin, and Ross L. Matsueda. 2006. Family Dynamics through Childhood: A Sibling Model of Behavior Problems. *Social Science Research* 35: 500–24. [CrossRef]

Harnett, Paul H., Sharon Dawe, and Melissa Russell. 2014. An Investigation of the Needs of Grandparents Who Are Raising Grandchildren: Grandparents Raising Grandchildren. *Child & Family Social Work* 19: 411–20. [CrossRef]

Hayslip, Bert, Jr., Christine A. Fruhauf, and Megan L. Dolbin-MacNab. 2019. Grandparents Raising Grandchildren: What Have We Learned over the Past Decade? *Gerontologist* 59: e152–e163. [CrossRef] [PubMed]

Hayslip, Bert, Jr., Heidemarie Blumenthal, and Ashley Garner. 2015. Social Support and Grandparent Caregiver Health: One-Year Longitudinal Findings for Grandparents Raising Their Grandchildren. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 70: 804–12. [CrossRef] [PubMed]

Hernandez-Avila, Carlos A., Bruce J. Rounsaville, and Henry R. Kranzler. 2004. Opioid-, Cannabis- and Alcohol-Dependent Women Show More Rapid Progression to Substance Abuse Treatment. *Drug and Alcohol Dependence* 74: 265–72. [CrossRef] [PubMed]

Hirai, Michiyo, Serkan Dolma, Laura L. Vernon, and George A. Clum. 2021. Beliefs about Mental Illness in a Spanish-Speaking Latin American Sample. *Psychiatry Research* 295: 113634. [CrossRef] [PubMed]

Hook, Jennifer L., and Satvika Chalasani. 2008. Gendered Expectations? Reconsidering Single Fathers' Child-Care Time. *Journal of Marriage and Family* 70: 978–90. [CrossRef]

Johnson, Anna D., Anne Martin, Jeanne Brooks-Gunn, and Stephen A. Petrill. 2008. Order in the House! Associations among Household Chaos, the Home Literacy Environment, Maternal Reading Ability, and Children's Early Reading. *Merrill-Palmer Quarterly (Wayne State University Press)* 54: 445–72. [CrossRef] [PubMed]

Johnson, Kenneth M., and William P. OHare '. 2004. Child Poverty in Rural America. *Reports on America* 71: 6–11.

Khatana, Sameed Ahmed M., and Peter W. Groeneveld. 2020. Health Disparities and the Coronavirus Disease 2019 (COVID-19) Pandemic in the USA. *Journal of General Internal Medicine* 35: 2431–32. [CrossRef] [PubMed]

Kim, Hyunil, and Brett Drake. 2018. Child Maltreatment Risk as a Function of Poverty and Race/Ethnicity in the USA. *International Journal of Epidemiology* 47: 780–87. [CrossRef] [PubMed]

Lacey, Rebecca E., Meena Kumari, and Mel Bartley. 2014. Social Isolation in Childhood and Adult Inflammation: Evidence from the National Child Development Study. *Psychoneuroendocrinology* 50: 85–94. [CrossRef] [PubMed]

Lander, Laura, Janie Howsare, and Marilyn Byrne. 2013. The Impact of Substance Use Disorders on Families and Children: From Theory to Practice. *Social Work in Public Health* 28: 194–205. [CrossRef] [PubMed]

Lent, Jaia Peterson, and Adam Otto. 2018. Grandparents, Grandchildren, and Caregiving: The Impacts of America's Substance Use Crisis. *Generations* 42: 15–22.

Lopez, Leo, Louis H. Hart, and Mitchell H. Katz. 2021. Racial and Ethnic Health Disparities Related to COVID-19. *JAMA* 325: 719–20. [CrossRef] [PubMed]

McDaniel, Susan A., and Ingrid A. Connidis. 1990. Family Ties and Aging. *The Canadian Journal of Sociology/Cahiers Canadiens de Sociologie* 15: 99. [CrossRef]

McLoyd, Vonnie C. 2021. Poverty, Parenting, and Policy: Meeting the Support Needs of Poor Parents. In *Children of Poverty*. London: Routledge, pp. 269–303.

Mederer, Helen J. 1999. Surviving the Demise of a Way of Life: Stress and Resilience in Northeastern Commercial Fishing Families. In *The Dynamics of Resilient Families*. Edited by Hamilton I. Mccubbin, Elizabeth A. Thompson, Anne I. Thompson and Jo A. Futrell. Thousand Oaks: Sage, pp. 203–35.

Mokrova, Irina L., Lynne Vernon-Feagans, and Patricia Garrett-Peters. 2017. Rural Parenting: Cumulative Risk and Parenting Process. In *Rural Education Research in the United States*. Cham: Springer International Publishing, pp. 203–29.

Morris, Amanda Sheffield, Jennifer Hays-Grudo, Kara L. Kerr, and Lana O. Beasley. 2021. The Heart of the Matter: Developing the Whole Child through Community Resources and Caregiver Relationships. *Development and Psychopathology* 33: 533–44. [CrossRef] [PubMed]

Murphy, Christopher M., and Laura Ting. 2010. The Effects of Treatment for Substance Use Problems on Intimate Partner Violence: A Review of Empirical Data. *Aggression and Violent Behavior* 15: 325–33. [CrossRef]

Nam, Yunju, Nora Wikoff, and Michael Sherraden. 2015. Racial and Ethnic Differences in Parenting Stress: Evidence from a Statewide Sample of New Mothers. *Journal of Child and Family Studies* 24: 278–88. [CrossRef]

Niccols, Alison, Karen Milligan, Wendy Sword, Lehana Thabane, Joanna Henderson, and Ainsley Smith. 2012. Integrated Programs for Mothers with Substance Abuse Issues: A Systematic Review of Studies Reporting on Parenting Outcomes. *Harm Reduction Journal* 9: 14. [CrossRef] [PubMed]

Pashos, Alexander, and Donald H. McBurney. 2008. Kin Relationships and the Caregiving Biases of Grandparents, Aunts, and Uncles: A Two-Generational Questionnaire Study: A Two-Generational Questionnaire Study. *Human Nature* 19: 311–30. [CrossRef] [PubMed]

Patton, Michael Quinn. 2002. Two Decades of Developments in Qualitative Inquiry: A Personal, Experiential Perspective. *Qualitative Social Work* 1: 261–83. [CrossRef]

Pryor, Laura, Katrine Strandberg-Larsen, Anne-Marie Nybo Andersen, Naja Hulvej Rod, and Maria Melchior. 2019. Trajectories of Family Poverty and Children's Mental Health: Results from the Danish National Birth Cohort. *Social Science & Medicine* 220: 371–78. [CrossRef]

Reardon, Sean F. 2011. The Widening Academic Achievement Gap between the Rich and the Poor: New Evidence and Possible Explanations. In *Whither Opportunity? Rising Inequality and the Uncertain Life Chances of Low-Income Children*. Edited by Richard J. Murnane and Greg J. Duncan. New York: Russell Sage Foundation, pp. 91–116.

Rispoli, Kristin M., Leslie R. Hawley, and Marianne C. Clinton. 2018. Family Background and Parent–School Interactions in Parent Involvement for at-Risk Preschool Children with Disabilities. *The Journal of Special Education* 52: 39–49. [CrossRef]

Roy, Kevin M., Carolyn Y. Tubbs, and Linda M. Burton. 2004. Don't Have No Time: Daily Rhythms and the Organization of Time for Low-Income Families. *Family Relations* 53: 168–78. [CrossRef]

Rubenstein, Batya, and Carla Smith Stover. 2016. Intimate Partner Violence, Fatherhood, and Co-Parenting of Men in Residential Substance Misuse Treatment. *Advances in Dual Diagnosis* 9: 119–29. [CrossRef]

Sabol, Terri J., Natalie L. Bohlmann, and Jason T. Downer. 2018. Low-Income Ethnically Diverse Children's Engagement as a Predictor of School Readiness above Preschool Classroom Quality. *Child Development* 89: 556–76. [CrossRef] [PubMed]

Scaramella, Laura V., Tricia K. Neppl, Lenna L. Ontai, and Rand D. Conger. 2008. Consequences of Socioeconomic Disadvantage across Three Generations: Parenting Behavior and Child Externalizing Problems. *Journal of Family Psychology* 22: 725–33. [CrossRef]

Schickedanz, Adam, Peter G. Szilagyi, and Benard Dreyer. 2021. Child Poverty and Health in the United States: Introduction and Executive Summary. *Academic Pediatrics* 21: S81–S85. [CrossRef] [PubMed]

Schneiders, Mira Leonie, Maly Phou, Vira Tum, Maureen Kelley, Michael Parker, and Claudia Turner. 2021. Grandparent Caregiving in Cambodian Skip-Generation Households: Roles and Impact on Child Nutrition. *Maternal & Child Nutrition* 17: e13169. [CrossRef]

Smithbattle, Lee. 2018. Teen Mothering in the United States: Fertile Ground for Shifting the Paradigm. In *Re/Assembling the Pregnant and Parenting Teenager: Narratives from the Field(s)*. Edited by Annelies Kamp and Majella McSharry. New York: Peter Lang, pp. 75–103.

Staveteig, Sarah, and Alyssa Wigton. 2000. *Racial and Ethnic Disparities: Key Findings from the National Survey of America's Families*. Washington, DC: Urban Institute.

Steele, Howard, Jordan Bate, Miriam Steele, Shanta Rishi Dube, Kerri Danskin, Hannah Knafo, Adella Nikitiades, Karen Bonuck, Paul Meissner, and Anne Murphy. 2016. Adverse Childhood Experiences, Poverty, and Parenting Stress. *Canadian Journal of Behavioural Science/Revue Canadienne des Sciences du Comportement* 48: 32–38. [CrossRef]

Substance Abuse and Mental Health Services Administration. 2019. *National Survey of Substance Abuse Treatment Facilities* ; Substance Abuse Mental Health Services Administration. Available online: https://www.samhsa.gov/find-help/prevention#substance-use-disorder-prevention (accessed on 10 January 2022).

Ventura, Stephanie J., Brady E. Hamilton, and T. J. Mathews. 2014. National and State Patterns of Teen Births in the United States, 1940–2013. *National Vital Statistics Reports* 63: 1–34. [PubMed]

Vernon-Feagans, Lynne, Patricia Garrett-Peters, Michael Willoughby, Roger Mills-Koonce, and Family Life Project Key Investigators. 2012. Chaos, Poverty, and Parenting: Predictors of Early Language Development. *Early Childhood Research Quarterly* 27: 339–51. [CrossRef] [PubMed]

Wildsmith, Elizabeth, Nicole R. Steward-Streng, and Jennifer Manlove. 2011. Childrearing Outside of Marriage: Estimates and Trends in the United States. *Child Trends* 29: 2–6.

World Childhood Foundation. 2020. Families at Risk. Available online: https://childhood.org/this-is-childhood/children-that-childhood-wants-to-reach/families-at-risk/ (accessed on 19 January 2022).

Wray, Wendella. 2015. Parenting in Poverty: Inequity through the Lens of Attachment and Resilience. Available online: http://www.aijssnet.com/journals/Vol_4_No_2_April_2015/20.pdf (accessed on 19 January 2022).

Xu, Ling, Fengyan Tang, Lydia W. Li, and Xin Qi Dong. 2017. Grandparent Caregiving and Psychological Well-Being among Chinese American Older Adults—the Roles of Caregiving Burden and Pressure. *Journals of Gerontology Series A: Biomedical Sciences and Medical Sciences* 72: S56–S62. [CrossRef] [PubMed]

Review

Understanding the Role of Parental Control in Early Childhood in the Context of U.S. Latino Families in the 21st Century

Marta Benito-Gomez

Department of Psychology & Brain Sciences, University of Delaware, Newark, DE 19713, USA; mbgomez@udel.edu

Abstract: This review focuses on the role of parental control in the sociocultural context of U.S. Latino families with young children in the 21st century. The review begins with a historical overview of the concept of parental control and a summary of theoretical approaches to the study of parenting in context. Associations between different forms of parental control and children's adjustment are summarized, with special attention to cultural considerations and the role of maternal warmth in research involving Latino families. Variability and inconsistencies within the literature on parental control within this population are discussed. The review concludes by discussing future directions for research on this topic, and implications of this literature to move the field toward a better understanding of parenting behaviors and its effects on child functioning in families from different ethnic backgrounds in the 21st century.

Keywords: parenting; parental control; Latino families; culturally responsive approaches

1. Introduction

The 21st century has been characterized by demographic shifts in the United States (U.S.), with Latino individuals constituting one of the fastest growing ethnic groups. Latinos make up over 18.7% of the total U.S. population and Latino children make up 25.7% of the nation's total child population (U.S. Census Bureau 2020a). Within this ethnic group, a total of 57.5% are married parents of children younger than 18, and most children have been born in the U.S. (U.S. Census Bureau 2016). It has been estimated that by 2065, 24% of the U.S. population will be Latino (Pew Research Center 2015). The term Latino refers to a diverse ethnic group that includes individuals from different origin backgrounds, with people of Mexican origin accounting for nearly 62%, those of Puerto Rico origin for 9.7%, and Cubans (3.9%) comprising the next largest origin group (Pew Research Center 2021). Given the considerable projected growth of U.S. Latinos in the 21st century, there is a need for increased understanding regarding the nature of parenting behaviors, taking into consideration the unique cultural and sociohistorical context within which Latino families are embedded.

Although all parents face stressors, Latino parents are more likely to live under conditions of poverty, to have poor access to medical care, and face educational disparities compared to other ethnic groups (Ornelas et al. 2009). Due to exposure to a variety of contextual stressors, such as poor-quality neighborhoods, language barriers, and cultural stressors, they are more likely to experience family and acculturation stress, all of which might ultimately compromise parenting quality (White et al. 2009). As a result, one of the challenges for Latino parents in the new century is the ability to create a safe environment that allows their young children to thrive.

Parenting is a critical environmental factor for young children, who are rapidly developing regulatory capabilities that are thought to set the stage for later social-emotional development and overall adjustment (Vohs and Baumeister 2016). Given that Latino children are at increased risk for behavior problems and maladjustment (Bámaca-Colbert et al.

2012; Calzada et al. 2012; Flores et al. 2002), understanding to what extent and under what conditions parenting behaviors influence Latino children's adjustment has important implications for optimizing early preventive and intervention efforts.

Research has consistently indicated that young children who experience sensitive parenting are more likely to develop secure attachments, better emotion regulation, and positive social and emotional adjustment (Leerkes et al. 2009). In contrast, young children who are exposed to intrusive and harsh parenting are more likely to develop avoidant attachments, low effortful control and self-regulation, and emotional and behavioral problems (Carlson and Harwood 2003; Gueron-Sela et al. 2017; Taylor et al. 2013). However, the current literature on early caregiving often fails to recognize the role of culture as shaping parenting behaviors and the extent to which the expression, functionality, and impact of parenting may differ across cultural groups. Instead, most studies have used conceptualizations of parenting initially developed based on observations of European American and middle-class families that may or may not apply across cultural groups (Ispa et al. 2004, 2013). Specific to studies that have examined parenting behaviors in Latino families, it has been suggested that the effects of parental control may not always be harmful, depending on factors such as context, culture, and outcomes of interest (Carlson and Harwood 2003; Ispa et al. 2004). The current review aims to make sense of inconsistent findings in the literature on parental control within the sociocultural context of U.S. Latino families in the 21st century.

2. Historical Overview of the Concept of Parental Control

The construct of parental control was initially developed based on observations of European American and middle-class families (Barber 1996; Carlson and Harwood 2003; Ispa et al. 2004, 2013; Tamis-LeMonda et al. 2009). Within this literature, there is a lack of consistency regarding how parental control has been conceptualized across research studies. For example, researchers who refer to "control" may be referring to harsh discipline and punishment, physical control, or to intrusive and directive behaviors. Given recent findings suggesting differences in the distributions of parental controlling behaviors within different cultural groups, and the extent to which such behaviors are associated with more or less optimal developmental outcomes (Carlson and Harwood 2003; Domenech Rodríguez et al. 2009), reexamination of these constructs and how they have been conceptualized is particularly important.

Historically, Baldwin (1948) was one of the first researchers to define control as emphasizing "the existence of restrictions upon behavior which are clearly conveyed to the child" (p. 130). In contrast, Becker (1964) defined control as having "restrictions and strict enforcement of demands in the areas of play, modesty behavior, table manners, toilet training, neatness, orderliness, care of household furniture, noise, obedience, aggression to siblings, aggression to peers, and aggression to parents" (p. 174). Whereas Baldwin viewed the limits and restrictions placed on children's behaviors as a positive dimension of parenting, Becker perceived control as negative.

Some of the most influential work focusing on the conceptualization of parental control involves the four typologies developed by Baumrind, based on levels of warmth and control (Baumrind 1966). In her initial work, Baumrind distinguished between authoritative and authoritarian types of control, later reframed in terms of a two-dimensional conceptualization of parenting style based on levels of demandingness and responsiveness (Baumrind 1966). Other perspectives on parental control have distinguished between psychological control and behavioral control (Barber 1996). Parental behavioral control refers to parental control over the child's behavior, whereas parental psychological control refers to manipulation of the child's thoughts and emotions (Barber 1996). Even though there is a general consensus that psychological control is associated with less optimal child developmental outcomes, there is some inconsistency regarding the effects of behavioral control on child adjustment (Barber 1996; Grolnick 2002).

Similar to parental psychological control is the construct of parental intrusiveness. In early childhood research, the concept of parental intrusiveness has been used to describe parental behaviors that exert control over children in a way that is overwhelming and undermines the development of autonomy (Ainsworth et al. 1978). In studies that have used Ainsworth's definition, parental intrusiveness is considered to involve parental behaviors that interfere with children's efforts (Adam et al. 2004; Ispa et al. 2004) and the use of noncontingent physical behaviors and verbal directives that limit children's activity (Clincy and Mills-Koonce 2013). Generally, parental intrusiveness has been theorized to be detrimental for children's development because it undermines opportunities for autonomy development and engagement with their environments (Graziano et al. 2010).

In the new century, several scholars have highlighted the need to refine the different approaches to parental control to move the field forward and yield a set of conclusions. For example, Grolnick and Pomerantz (2009) suggested that only parenting behaviors that are intrusive, dominating, and coercive should be considered as controlling, whereas parenting behaviors that provide guidance should be considered as structure. Similarly, revisions of Baumrind's work distinguished between coercive and confrontive control styles that had been conflated within the authoritative and authoritarian parenting typologies (Baumrind et al. 2010; Baumrind 2012). Both authoritative and authoritarian parents assert some level of power and control; however, parents who are authoritative assert power that is confrontive (i.e., reasoned, outcome-oriented, and regulatory), whereas authoritarian parents assert power that is coercive (i.e., arbitrary, absolute, maintains hierarchical status, and involves use of threats). Baumrind suggested that high coercive control, but not confrontive control, places children at increased risk for maladjustment (Baumrind 2012). In fact, she suggested that confrontive power assertion might be beneficial when not confounded with coercive power assertion. Even though Baumrind's understanding of parental control has evolved over the years, many researchers still use ideas from her initial views of parenting without making further distinctions among parents who assert confrontive versus coercive types of control. Additionally, scholars have suggested that whether parental control is associated with optimal or poor developmental outcomes may depend on the cultural backgrounds of families being considered. Lack of attention to the cultural context in which families are embedded may limit understanding regarding the nature of parental control and its impact on children's adjustment.

3. Theoretical Approaches to the Study of Parenting in the 21st Century

In order to understand the role of parenting in the 21st century, we must integrate ideas from theoretical approaches that conceive culture as directly influencing parenting behaviors. Several models originating in the past century have described culture as directly influencing parenting through its impact on parental beliefs about normative and non-normative parenting practices, perceptions of children's developmental needs, and socialization goals. For example, Harkness and Super (1996) used the term "parental ethnotheories" to refer to the culturally-based belief systems about parenting and child development that play a crucial role in shaping parenting behaviors. In contrast, more traditional contextual models, such as the bioecological framework (Bronfenbrenner and Morris 1998), consider culture as a part of a macrosystem in which parenting is affected through more proximal factors. A recent revision of the bioecological model has moved culture from the macro- to the microsystem and conceptualized culture and ethnicity as a proximal factor that is part of family systems' daily practices, schools, and other learning environments (Vélez-Agosto et al. 2017).

In the new century, theoretical models that have moved away from deficit approaches have gained attention. Such models include perspectives that focus on adaptiveness and resilience within diverse populations (García Coll and Pachter 2002; Perez-Brena et al. 2018). Over the last 20 years, the integrative model for the study of minority children has been considered by many scholars to represent a landmark shift in the ways in which the parenting and development of ethnic minority children is understood. This model

considers social class, culture, ethnicity, and race as the "core" rather than the "periphery" of a theoretical understanding of child development (García Coll et al. 1996). One of the greatest contributions of this model is that it challenges deficit perspectives of child development among ethnic-racial minority children and families and offers a resilience perspective that underscores the "diversity and strengths" within these groups (Perez-Brena et al. 2018). A revision of this model has incorporated additional social positional variables such as immigrant status, documentation status, and migrant status to better understand developmental processes in the context of Latino families living in rural, emerging immigrant communities (Stein et al. 2016). Additionally, a recent qualitative review of studies using the integrative model highlighted the need to pay attention to sociohistorical contexts, cascading and bidirectional influences, and moderating factors (e.g., gender and acculturation) to continue understanding the concept of adaptive culture and the experiences of ethnic-racial minoritized families (Perez-Brena et al. 2018).

Recent models of parenting have also theorized about the unique contexts in which families from different ethnic and racial backgrounds are embedded. For instance, in the context of Latino families adjusting to life in the U.S., Calzada et al. (2010) developed a framework that incorporated acculturative status and ethnic socialization of *respeto* to better understand Latino parenting from a cultural perspective (Calzada et al. 2012). Similarly, Rodriguez-Jenkins (2014) developed a contextual parenting framework for Latino families with young children. Within this framework, culture, environment, and parenting are understood as reciprocal processes that are directly influenced by institutional and structural inequalities, such as access to and quality of education, healthcare, employment, discrimination, and socio-political climate.

4. The Role of Parental Control in Early Childhood

Studies that have included predominantly European American samples have suggested that parental control that is intrusive, dominant, and coercive in nature has negative implications for child development, including emotional and behavioral problems, low effortful control, defensiveness, non-compliant behaviors, avoidant attachments, and other indicators of adjustment problems (Carlson and Harwood 2003; Guzell and Vernon-Feagans 2004; Ispa et al. 2004; Tamis-LeMonda et al. 2004; Taylor et al. 2013). For example, findings from a large national study using an observational assessment of harsh-intrusive parenting behaviors during a mother-child structured play task indicated that harsh-intrusive parenting behaviors at age 5 were associated with more internalizing behaviors when children were 6 and 7 years old (Gueron-Sela et al. 2017). Similarly, Tamis-LeMonda et al. (2004) found that mothers' and fathers' parental intrusiveness at 24 months was negatively associated with children's language and cognitive development at 36 months. Researchers have explained these findings by suggesting that this type of parenting undermines children's opportunities for autonomy development and behavioral and emotional regulation (e.g., Graziano et al. 2010). As a result, it has been suggested that children with controlling parents are likely to have fewer opportunities to learn from the environment and engage in self-regulatory behaviors. Additionally, if parental controlling behaviors are perceived as hostile by the child, they may compromise children's ability to physiologically regulate, undermining learning and socialization experiences (Eisenberg et al. 2015).

However, studies involving families from diverse racial and ethnic groups have displayed mixed or null results, suggesting that the effects of controlling behaviors may differ across cultural groups. Given that parenting behaviors are culturally constructed and may have different functionalities, it has been suggested that parental control may have different meanings across cultures (Deater-Deckard et al. 2011; Ispa et al. 2004). Specific to Latino families, some scholars have suggested that, due to the normative nature of these behaviors within this cultural group, children may perceive these behaviors as expressions of love and care (Halgunseth et al. 2006), whereas others have suggested that very young children may not be able to distinguish culturally normative versus non-normative parenting behaviors (Barajas-Gonzalez et al. 2018).

4.1. Parental Control in the Context of Latino Families

Research examining the relationship between parental controlling behaviors and young children's adjustment in Latino families has been scarce and results are mixed. For example, whereas trajectories of increasing intrusiveness have been associated with negative child behaviors towards mothers across ethnic groups, the strength of this association is smaller for Mexican American children compared to European American and African American children participating in Early Head Start programs (Ispa et al. 2013). Using a racially and ethnically diverse sample, Diemer et al. (2021) found that greater parental intrusiveness at age two was associated with increased behavior problems and decreased emotion regulation at age three within White and Latino families, but not within Black families. In contrast, higher levels of maternal physical control during play, feeding, and teaching have been associated with secure attachment in Puerto Rican toddlers and insecure attachments in White toddlers (Carlson and Harwood 2003), and mothers who engaged in "abrupt-interfering pick-ups" were more likely to have securely attached infants in a sample of Puerto Rican and Dominican immigrant families (Fracasso et al. 1994).

Given that many Latino parents are also immigrants, it is especially important to understand the unique conditions within which parenting by immigrant families occurs. For example, differences in parenting behaviors have been documented in relation to acculturation status, which refers to the extent to which cultural practices have shifted as a result of exposure to a host culture (Hill et al. 2003; Fuller and García Coll 2010). Among immigrant Latino parents in the U.S., it has been suggested that differences in levels of acculturation might contribute to differences in mean levels of parental intrusiveness and its effects on children's adjustment (Hill et al. 2003; Ispa et al. 2004). Even though findings are mixed, some studies have indicated that among less acculturated mothers, controlling behaviors, such as intrusiveness and physical and verbal discipline, may have fewer negative or positive implications for children's development, compared to more acculturated mothers (Barajas-Gonzalez et al. 2018; Ispa et al. 2004; Wood and Grau 2018).

In a recent study by Wood and Grau (2018), associations between maternal control and child dysregulated defiance were examined among Puerto Rican adolescent mothers and their toddlers. Person-centered analyses indicated four different parenting profiles: enculturated/controlling, bicultural/guiding, bicultural/controlling, and acculturated/controlling. Children in the acculturated/controlling subgroup demonstrated greater defiance toward their mothers than children in the enculturated/controlling subgroup. Children in both the enculturated/controlling and bicultural/guiding subgroups displayed the lowest levels of defiance, compared to the other two subgroups. These findings suggest that for highly enculturated Puerto Rican mothers who engaged in higher levels of control, lower levels of guidance, and low positive affect, the effects on child defiance were similar to those for bicultural mothers who engaged in higher levels of guidance than control and higher levels of positive affect. In other words, different parenting strategies can lead to similar levels of child adjustment dependent on the context in which parent-child interactions occur. In sum, some studies suggest that parental control may be less detrimental for children's adjustment among Latino immigrant families with strong cultural orientations; however, other studies have no found associations between control and child adjustment within this cultural group.

4.2. The Role of Maternal Warmth

Several scholars have proposed that the nature of parental control within Latino families may be different than within other ethnic groups due to parents' use of controlling behaviors in combination with warmth. Parental warmth refers to expressions of love, affection, support, and positive regard for the child (Maccoby and Martin 1983). It has been suggested that within collectivistic cultures, parental control is not necessarily accompanied by low levels of warmth (Grusec et al. 1997). For example, within European American families, correlations between parental warmth and intrusiveness tend to be negative. In contrast, intrusiveness and parental warmth tend to co-occur within Latino families

(Tamis-LeMonda et al. 2009). Additionally, Latino parents are more likely to engage in affectionate behaviors (i.e., hugging and kissing) and display high levels of warmth even in the presence of controlling behaviors (Halgunseth and Ispa 2012). This has led to some researchers defining Latino parenting as "protective" (Domenech Rodríguez et al. 2009) and "no-nonsense" rather than controlling or authoritarian (Mahrer et al. 2019). As a result, it is not surprising that, within these groups, different forms of parental control are not consistently associated with less optimal child developmental outcomes. A growing body of research suggests that maternal warmth may moderate the associations between parental control and children's adjustment (McLoyd and Smith 2002) and that the affective context within which parenting occurs may be a key determinant of its short and long-term impact (Ispa et al. 2004).

Only a few studies have considered parental warmth as a moderator of associations between controlling behaviors and indicators of child adjustment. A number of studies have indicated that the negative impact of parental controlling behaviors is ameliorated among Latino families in the context of parental responsiveness or warmth. In a study of children 4–5 years of age from European American, African American, and Latino backgrounds, spanking was associated with an increase in behavioral problems over time across all ethnic groups, but only in the context of low maternal emotional support (McLoyd and Smith 2002). In a recent study, Benito-Gomez (2020) examined how maternal intrusiveness, as measured by a culturally informed observational assessment during a free play task, related to internalizing and externalizing behaviors in Latino children at 14 and 24 months, and whether maternal warmth moderated this association. Findings indicated that parental intrusiveness was associated with higher levels of externalizing behaviors, but only for children whose mothers displayed low levels of warmth. Similar findings have been reported in samples involving adolescents, in which associations between harsh discipline and externalizing behaviors became nonsignificant for Mexican American mothers who displayed high levels of warmth (Germán et al. 2013).

However, not all research has found this buffering, moderating effect within Latino families. Ispa et al. (2004) reported that within African American families, maternal intrusiveness, as defined by Ainsworth et al. (1978), was associated with toddler's display of negativity towards their mothers only for mothers who displayed low levels of maternal warmth. However, this effect was not observed within European and Mexican American families. Barajas-Gonzalez et al. (2018) examined whether parental warmth and *respeto* moderated associations between spanking and verbal punishment, and Latino children's adjustment. Findings indicated that greater use of verbal punishment was associated with higher levels of externalizing behaviors and that this association was not moderated by parental warmth or *respeto*. The authors propose that very young children may not yet have the cognitive skills to interpret harsh and controlling behaviors as caring rather than punitive. In sum, whereas some studies have indicated that maternal warmth moderates associations between different forms of parental control (i.e., intrusiveness and physical discipline) and children's adjustment, others have not found empirical support for this premise. Variability in findings has led some researchers to conclude that parental control among Latina mothers is not always harmful, and can even be beneficial, depending on the context and child developmental outcome considered (Carlson and Harwood 2003; Ispa et al. 2004; Wood and Grau 2018).

5. Understanding Variability in Findings

In line with recent theoretical frameworks that underscore the role of culture as directly shaping parental beliefs and behaviors, some scholars have attributed variability in findings to differences in the meaning and expression of parental control across cultural groups (Davidov 2021). Among Western families, the development of self-expression is key to becoming a successful member of the family system. Thus, socialization strategies include a focus on the support of psychological autonomy from early ages (Keller 2002). For example, infants are treated as individuals whose wishes, preferences, and intentions

need to be responded to and respected by sensitive caregivers (Ainsworth et al. 1978). In contrast, among non-Western families, conformity with family values, obedience, respect for the elderly, self-control, good behavior, and maintenance of parental authority are central socialization goals (Keller et al. 2004). In line with a collectivistic orientation, Latina mothers are more likely to use directives and controlling behaviors in their interactions with children (Grau et al. 2009). Given that the meaning behind discrete parenting behaviors is defined by the culture within which such behaviors are embedded (Harkness and Super 1996), it is possible that the use of directive and controlling behaviors within Latino families may be a strategy to foster the culturally relevant socialization goals of *familism* (in which children's prioritization of the family system is emphasized) and *respeto* (in which children's obedience and good manners are stressed; Calzada et al. 2012).

Similarly, it has been suggested that teaching young children to be respectful, well-behaved, and attentive may require greater use of controlling strategies (e.g., use of physical manipulation and directives) than is required for teaching children to be autonomous and independent (Carlson and Harwood 2003). Within Latino families, parenting practices characterized by high levels of control are frequently observed and considered by parents to be the best practices for child rearing (Ispa et al. 2004; Tamis-LeMonda et al. 2009). Some researchers have suggested that given that parental control is normative within this cultural group, children may not perceive these behaviors as intrusive but rather as expressions of love and care (Halgunseth et al. 2006), particularly when they are combined with high levels of warmth. The normative hypothesis is an important explanation to consider when trying to understand the influence of controlling behaviors on older children's adjustment. However, it is possible that children who are very young may not be able to interpret controlling behaviors as normative and caring rather than coercive due to their lack of cognitive skills, suggesting that the normative hypothesis may not be as relevant earlier in childhood (Barajas-Gonzalez et al. 2018; Grusec and Goodnow 1994).

Although recent conceptualizations of parental control have emphasized qualitative differences between coercive and directive types of control (Baumrind 2012; Grolnick and Pomerantz 2009), researchers have tended to consider any type of control as negative without paying attention to how behaviors are displayed and the function of such behaviors. Some research has indicated that Latino parents are more likely to use direct verbal commands and physical manipulation compared with European American parents (Livas-Dlott et al. 2010). It has been suggested that the function of such behaviors might be to correct the child's behavior and provide guidance and structure, rather than to control and undermine the child's development of autonomy. As a result, it is possible that findings suggesting different forms of parental control are less strongly associated with child adjustment problems within Latino families may be due to the inclusion of both positive and negative aspects of parental control within the same construct. There is a need to distinguish parental behaviors that are intrusive and coercive in nature from those that aim to provide guidance and structure within the parent-child interaction (see Benito-Gomez 2020). Studies that fail to distinguish between positive and negative forms of control (i.e., intrusiveness versus guidance) might not be capturing Latino parenting behaviors in accurate ways, which may lead to inaccurate findings. Additionally, traditional observational coding systems and questionnaires used to assess parenting behaviors are based on underlying constructs that reflect Western perceptions of parenting (Kerig 2001). The use of such measures might lead to misestimations of cultural differences and reinforce conclusions based on deficit models of ethnic minority parenting. The use of culturally informed measures that capture the variability of parenting behaviors across groups within a given cultural context is critical.

Even though cultural factors, ethnicity, and context are interrelated, much of the work on cultural variations in parenting has confounded ethnicity with contextual factors. Some scholars have suggested that differences in parenting across ethnic groups are due to socioeconomic status disparities, suggesting that socio-demographic factors are more salient than cultural factors in predicting parenting behaviors (Mesman et al. 2012). In contrast, others have indicated that culture predicts parenting differences above and beyond

socioeconomic status (Harwood et al. 1996; Hofferth 2003). It is important to understand how culture, ethnicity, and contextual factors operate both individually and in combination as predictors of variability in parenting behaviors in general, and parental control in particular (Le et al. 2008).

Finally, discrepancies in findings may also stem from differences in the historical time of assessment, samples, and other moderating variables such as characteristics of children and parents (Davidov 2021). Given the within-group heterogeneity of U.S. Latinos, findings may vary as a function of moderating variables, such as the country of origin, personal and historical circumstances for U.S arrival, level of acculturation, generation status, and exposure to structural and institutional inequalities (Rodriguez-Jenkins 2014).

6. Future Directions and Implications for Parenting in the 21st Century

Compared to the 20th century, the U.S population is more racially and ethnically diverse than ever before (U.S. Census Bureau 2020b). However, most of the extant literature on "normative" parenting is based on European American, middle-class samples, and few studies have examined how parenting behaviors are shaped by cultural factors or within diverse ethnic groups. Most studies that have included culturally diverse samples have involved comparisons to the standard group, based on Western assumptions of parenting. Specific to studies involving Latino families, researchers are increasingly questioning whether the prevalence and expression of different forms of parental control and its effects on young children's adjustment is reflective of true differences, cultural differences, or methodological issues. Understanding how parenting behaviors are shaped by the larger sociohistorical and cultural context within which families operate is critical for understanding parenting, parenting interventions, and research on parenting in the 21st century.

Future research on parenting that aims to represent the realities of Latino families should be framed by theoretical and culturally driven frameworks. The conceptualization of constructs should be guided by a sensitive and accurate understanding of cultural orientations and associated socialization goals within a given ethnic group. Given work suggesting that the use of directives and physical manipulation are more likely to be used by Latino parents to teach the socialization goals of *familism* and *respeto*, future studies should distinguish between behaviors that are coercive and parental driven and those that are child-oriented and intended to provide guidance (Benito-Gomez 2020). Given the critical importance of early caregiving behaviors for later child adjustment, the development of culturally informed measures that are guided both by relevant theoretical perspectives and empirical evidence will result in a better understanding of the nature of parenting within the context of U.S. Latino families in the 21st century.

It is important that future work in this area include measures of parental affect and warmth during parent-child interaction observations so that researchers can consider the emotional context within which parental control is displayed. Future studies should examine forms of parental control that are not aggregated into composite scores that also include harsh and other parenting behaviors (McFadden and Tamis-LeMonda 2013). Additionally, it is important to not only examine whether and how maternal warmth may alter the effects of parental control on child adjustment, but also under what conditions the benefits of maternal warmth might be attenuated by the presence of controlling behaviors (Tamis-LeMonda et al. 2009). Both examination of parental warmth during the same moment that controlling behaviors are displayed (Ispa et al. 2013) and consideration of the affect displayed by children when perceiving parenting behaviors might provide a better understanding regarding the role of parental control in Latino families. Given that most of the literature of parenting focuses on mothers, the inclusion of fathers and examination of their presence or absence (e.g., transnational families) in future research might yield additional insights related to whether components of Latino parenting differ in relation to young children's adjustment when they are exhibited by mothers versus fathers.

Given the expected growth and demographic changes of the U.S. Latino population during the 21st century, studies should examine variation within Latino subgroups based on country of origin, language proficiency, generation status, acculturation, income and education levels, and immigration experiences to name a few. This is an exciting time for practitioners to value and recognize such diversity through the development of culturally informed parenting programs that better reflect the nature of parenting behaviors within the cultural and emotional context in which Latino families are embedded. As U.S. Latino parents in the 21st century continue to navigate institutional inequalities and socio-political challenges, this work can guide early preventive and intervention efforts to promote nurturing behaviors and support optimal child development. Given that Latino parents in the U.S. are more likely to underutilize community and social services due to these challenges, parenting programs that are offered in Spanish and incorporate cultural values of *respeto* and *familismo* have the potential to increase engagement and retention of Latino families and the possibility of sustained positive parenting outcomes overtime.

Latino children account for over one quarter of all children in the U.S., with this number growing. They and their parents experience systemic disadvantage as a consequence of factors that include residence in poor-quality neighborhoods, access to education and health care, language barriers, and cultural stressors. Such disadvantage has tremendous implications for the family system and has the potential to compromise parenting quality. Yet, even in the presence of multiple challenges, Latino parenting is characterized by numerous strengths that include strong family-oriented values and warmth. It is critical to recognize such strengths and incorporate them into a nuanced and thoughtful perspective on Latino parenting that account for the unique needs and experiences of these families in the U.S. Moving beyond generalizations and stereotyped representations of ethnic-racial minoritized families and toward an understanding of similarities and differences as well as the strengths and challenges that characterize Latino parents is critical to understanding and supporting parenting in the 21st century.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Conflicts of Interest: The author declares no conflict of interest.

References

Adam, Emma K., Megan R. Gunnar, and Akiko Tanaka. 2004. Adult attachment, parent emotion, and observed parenting behavior: Mediator and moderator models. *Child Development* 75: 110–22. [CrossRef]

Ainsworth, Mary D., Mary C. Blehar Salter, Everett Waters, and Sally N. Wall. 1978. *Patterns of Attachment: A Psychological Study of the Strange Situation*. New York: Psychology Press.

Baldwin, Alfred L. 1948. Socialization and the parent-child relationship. *Child Development* 19: 127–36. [CrossRef]

Bámaca-Colbert, Mayra, Adriana J. Umaña-Taylor, and Jochebed G. Gayles. 2012. A developmental-contextual model of depressive symptoms in Mexican-origin female adolescents. *Developmental Psychology* 48: 406. [CrossRef] [PubMed]

Barajas-Gonzalez, Gabriela R., Esther Calzada, Keng-Yen Huang, Maite Covas, Claudia M. Castillo, and Laurie M. Brotman. 2018. Parent spanking and verbal punishment, and young child internalizing and externalizing behaviors in Latino immigrant families: Test of moderation by context and culture. *Parenting* 18: 219–42. [CrossRef]

Barber, Brian K. 1996. Parental psychological control: Revisiting a neglected construct. *Child Development* 67: 3296–19. [CrossRef]

Baumrind, Diana. 1966. Effects of authoritative parental control on child behavior. *Child Development* 37: 887–907. [CrossRef]

Baumrind, Diana. 2012. Differentiating between confrontive and coercive kinds of parental power-assertive disciplinary practices. *Human Development* 55: 35–51. [CrossRef]

Baumrind, Diana, Robert E. Larzelere, and Elizabeth B. Owens. 2010. Effects of preschool parents' power assertive patterns and practices on adolescent development. *Parenting* 10: 157–201. [CrossRef]

Becker, Wesley C. 1964. Consequences of different kinds of parental discipline. *Review of Child Development Research* 1: 169–208.

Benito-Gomez, Marta. 2020. A Culturally Sensitive Conceptualization of Parental Intrusiveness and Its Effects on Child Adjustment Within Latino Families. Ph.D. dissertation, University of North Carolina-Greensboro, Greensboro, NC, USA. Available online: http://libres.uncg.edu/ir/uncg/listing.aspx?id=32892 (accessed on 20 October 2021).

Bronfenbrenner, Urie, and Pamela Morris. 1998. The ecology of developmental process. In *Handbook of Child Psychology: Vol. 1: Theoretical Models of Human Development*, 5th ed. Edited by William Damon and Richard Lerner. New York: Wiley, pp. 992–1028.

Calzada, Esther J., Ken-Yeng Huang, Catherine Anicama, Yenny Fernandez, and Laurie M. Brotman. 2012. Test of a cultural framework of parenting with Latino families of young children. *Cultural Diversity and Ethnic Minority Psychology* 18: 285. [CrossRef]

Calzada, Esther J., Yenny Fernandez, and Dharma E. Cortes. 2010. Incorporating the cultural value of respeto into a framework of Latino parenting. *Cultural Diversity and Ethnic Minority Psychology* 16: 77. [CrossRef] [PubMed]

Carlson, Vivian J., and Robin L. Harwood. 2003. Attachment, culture, and the caregiving system: The cultural patterning of everyday experiences among Anglo and Puerto Rican mother-infant pairs. *Infant Mental Health Journal* 24: 53–73. [CrossRef]

Clincy, Amanda R., and W. Roger Mills-Koonce. 2013. Trajectories of intrusive parenting during infancy and toddlerhood as predictors of rural, low-income African American boys' school-related outcomes. *The American Journal of Orthopsychiatry* 83: 194–206. [CrossRef] [PubMed]

Davidov, Maayan. 2021. Cultural moderation of the effects of parenting: Answered and unanswered questions. *Child Development Perspectives* 15: 189–95. [CrossRef]

Deater-Deckard, Kirby, Jennifer E. Lansford, Patrick S. Malone, Liane P. Alampay, Emma Sorbring, Dario Bacchini, and Silvia M. Al-Hassan. 2011. The association between parental warmth and control in thirteen cultural groups. *Journal of Family Psychology* 25: 790–94. [CrossRef] [PubMed]

Diemer, Marie C., Monica S. Treviño, and Emily D. Gerstein. 2021. Contextualizing the role of intrusive parenting in toddler behavior problems and emotion regulation: Is more always worse? *Developmental Psychology* 57: 1242. [CrossRef] [PubMed]

Domenech Rodríguez, Melanie M., Melissa R. Donovick, and Susan L. Crowley. 2009. Parenting styles in a cultural context: Observations of "protective parenting" in first-generation Latinos. *Family Process* 48: 195–210. [CrossRef]

Eisenberg, Nancy, Zoe E. Taylor, Keith F. Widaman, and Tracy L. Spinrad. 2015. Externalizing symptoms, effortful control, and intrusive parenting: A test of bidirectional longitudinal relations during early childhood. *Development and Psychopathology* 27: 953–68. [CrossRef]

Flores, Glenn, Elena Fuentes-Afflick, Oxiris Barbot, Olivia Carter-Pokras, Luz Claudio, Marielena Lara, Jennie A McLaurin, Lee Pachter, Francisco J Ramos-Gomez, Fernando Mendoza, and et al. 2002. The health of Latino children: Urgent priorities, unanswered questions, and a research agenda. *JAMA* 288: 82–90. [CrossRef]

Fracasso, Maria P., Nancy A. Busch-Rossnagel, and Celia B. Fisher. 1994. The relationship of maternal behavior and acculturation to the quality of attachment in Hispanic infants living in New York City. *Hispanic Journal of Behavioral Sciences* 16: 143–54. [CrossRef]

Fuller, Bruce, and Cynthia García Coll. 2010. Learning from Latinos: Contexts, families, and child development in motion. *Developmental Psychology* 46: 559–65. [CrossRef]

García Coll, Cynthia, and Leem M. Pachter. 2002. Ethnic and minority parenting. In *Handbook of Parenting: Vol. 4. Social Conditions and Applied Parenting*. Edited by Marc H. Borstein. Mahwah: Erlbaum, pp. 1–20.

García Coll, Cynthia, Keith Crnic, Gontran Lamberty, Barbara H. Wasik, Renee Jenkins, Heidie V. Garcia, and Harriet P. McAdoo. 1996. An integrative model for the study of developmental competencies in minority children. *Child Development* 67: 1891–914. [CrossRef] [PubMed]

Germán, Miguelina, Nancy A. Gonzales, Darya Bonds McClain, Larry Dumka, and Roger Millsap. 2013. Maternal warmth moderates the link between harsh discipline and later externalizing behaviors for Mexican American adolescents. *Parenting* 13: 169–77. [CrossRef] [PubMed]

Grau, Josefina M., Margarita Azmitia, and Justin Quattlebaum. 2009. Latino families. In *Handbook of US Latino Psychology: Developmental and Community-Based Perspectives*. New York: Sage, p. 153.

Graziano, Paulo A., Susan P. Keane, and Susan D. Calkins. 2010. Maternal behaviour and children's early emotion regulation skills differentially predict development of children's reactive control and later effortful control. *Infant and Child Development* 19: 333–53. [CrossRef] [PubMed]

Grolnick, Wendy S. 2002. *The Psychology of Parental Control: How Well-Meant Parenting Backfires*. New York: Psychology Press.

Grolnick, Wendy S., and Eva M. Pomerantz. 2009. Issues and challenges in studying parental control: Toward a new conceptualization. *Child Development Perspectives* 3: 165–70. [CrossRef]

Grusec, Joan E., and Jacqueline J. Goodnow. 1994. Impact of parental discipline methods on the child's internalization of values: A reconceptualization of current points of view. *Developmental Psychology* 30: 4–19. [CrossRef]

Grusec, Joan E., Duane Rudy, and Tanya Martini. 1997. Parenting cognitions and child outcomes: An overview and implications for children's internalization of values. In *Parenting and Children's Internalization of Values: A Handbook of Contemporary Theory*. Edited by Joan E. Grusec and Leon Kuczynski. Hoboken: John Wiley & Sons, pp. 259–82.

Gueron-Sela, Noa, Rachel Bedford, Nicholas J. Wagner, and Cathi B. Propper. 2017. Children's executive function attenuate the link between maternal intrusiveness and internalizing behaviors at school entry. *Journal of Clinical Child & Adolescent Psychology* 47: S435–44. [CrossRef]

Guzell, Jacquiline R., and Lynne Vernon-Feagans. 2004. Parental perceived control over caregiving and its relationship to parent-infant interaction. *Child Development* 75: 134–46. [CrossRef]

Halgunseth, Linda C., and Jean M. Ispa. 2012. Mexican Parenting Questionnaire (MPQ). *Hispanic Journal of Behavioral Sciences* 34: 232–50. [CrossRef]

Halgunseth, Linda C., Jean M. Ispa, and Duane Rudy. 2006. Parental control in Latino Families: An integrated review of the literature. *Child Development* 77: 1282–97. [CrossRef]

Harkness, Sara, and Charles M. Super. 1996. *Parents' Cultural Belief Systems: Their Origins, Expressions, and Consequences*. New York: Guilford Press, pp. 1–23.

Harwood, Robin L., Axel Schoelmerich, Elizabeth Ventura-Cook, Pamela A. Schulze, and Stephanie P. Wilson. 1996. Culture and class influences on Anglo and Puerto Rican mothers' beliefs regarding long-term socialization goals and child behavior. *Child Development* 67: 2446–61. [CrossRef]

Hill, Nancy E., Kevin R. Bush, and Mark W. Roosa. 2003. Parenting and family socialization strategies and children's mental health: Low-income Mexican-American and Euro-American mothers and children. *Child Development* 74: 189–204. [CrossRef] [PubMed]

Hofferth, Sandra L. 2003. Race/ethnic differences in father Involvement in two-parent families: Culture, context, or economy? *Journal of Family Issues* 24: 185–216. [CrossRef]

Ispa, Jean M., Annamaria Csizmadia, Duane Rudy, Mark A. Fine, Jennifer L. Krull, Robert H. Bradley, and Natasha Cabrera. 2013. Patterns of maternal directiveness by ethnicity among early head start research participants. *Parenting* 13: 58–75. [CrossRef]

Ispa, Jean M., Mark A. Fine, Linda C. Halgunseth, Scott Harper, Joan Robinson, Lisa Boyce, Jeanne Brook-Gunn, and Cristy Brady-Smith. 2004. Maternal intrusiveness, maternal warmth, and mother-toddler relationship outcomes: Variations across low-income ethnic and acculturation groups. *Child Development* 75: 1613–31. [CrossRef]

Keller, Heidi. 2002. Development as the interface between biology and culture: A conceptualization of early ontogenetic experiences. *Between Culture and Biology: Perspectives on Ontogenetic Development* 8: 215.

Keller, Heidi, Arnold Lohaus, Petra Kuensemueller, Monika Abels, Relindis Yovsi, Susanne Voelker, Henning Jensen, Zaira Papaligoura, Mariano Rosabal-Coto, Daniela Kulks, and et al. 2004. The bio-culture of parenting: Evidence from five cultural communities. *Parenting* 4: 25–50. [CrossRef]

Kerig, Patricia K. 2001. Introduction and overview: Conceptual issues in family observational research. In *Family Observational Coding Systems: Resources for Systemic Research*. Edited by Patricia K. Kerig and Kristin M. Lindahl. Mahwah: Erlbaum, pp. 1–22.

Le, Huynh-Nhu, Rosario Ceballo, Ruth Chao, Nancy E. Hill, Velma. M. Murry, and Ellen E. Pinderhughes. 2008. Excavating culture: Disentangling ethnic differences from contextual influences in parenting. *Applied Developmental Science* 12: 163–75. [CrossRef]

Leerkes, Esther M., A. Nayena Blankson, and Marion O'Brien. 2009. Differential effects of maternal sensitivity to infant distress and nondistress on social-emotional functioning. *Child Development* 80: 762–75. [CrossRef]

Livas-Dlott, Alejandra, Bruce Fuller, Gabriela L. Stein, Margaret Bridges, Ariana Mangual Figueroa, and Laurie Mireles. 2010. Commands, competence, and cariño: Maternal socialization practices in Mexican American families. *Developmental Psychology* 46: 566–78. [CrossRef]

Maccoby, Eleanor E., and John Martin. 1983. Socialization in the context of the family: Parent-child interaction. In *Handbook of Child Psychology: Socialization, Personality and Social Development*. New York: Wiley, vol. 4, pp. 1–101.

Mahrer, Nicole E., Lindsay E. Holly, Linda J. Luecken, Sharlene A. Wolchik, and William Fabricius. 2019. Parenting style, familism, and youth adjustment in Mexican American and European American families. *Journal of Cross-Cultural Psychology* 50: 659–75. [CrossRef]

McFadden, Karen E., and Catherine S. Tamis-LeMonda. 2013. Maternal responsiveness, intrusiveness, and negativity during play with infants: Contextual associations and infant cognitive status in a low-income sample. *Infant Mental Health Journal* 34: 80–92. [CrossRef]

McLoyd, Vonnie C., and Julia Smith. 2002. Physical Discipline and behavior problems in African American, European American, and Hispanic children: Emotional support as a moderator. *Journal of Marriage and Family* 64: 40–53. [CrossRef]

Mesman, Judi, Marinus H. van IJzendoorn, and Marian J. Bakermans-Kranenburg. 2012. Unequal in opportunity, equal in process: Parental sensitivity promotes positive child development in ethnic minority families. *Child Development Perspectives* 6: 239–50. [CrossRef]

Ornelas, India J., Krista M. Perreira, Linda Beeber, and Lauren Maxwell. 2009. Challenges and strategies to maintaining emotional health: Qualitative perspectives of Mexican immigrant mothers. *Journal of Family Issues* 30: 1556–75. [CrossRef]

Perez-Brena, Norma J., Deborah Rivas-Drake, Russel B. Toomey, and Adriana J. Umaña-Taylor. 2018. Contributions of the integrative model for the study of developmental competencies in minority children: What have we learned about adaptive culture? *American Psychologist* 73: 713–26. [CrossRef] [PubMed]

Pew Research Center. 2015. Key Facts about Young Latinos, One of the Nation's Fastest-Growing Populations. Available online: http://www.pewresearch.org/fact-tank/2018/09/13/key-facts-about-young-latinos/ (accessed on 3 January 2019).

Pew Research Center. 2021. Key Facts about U.S. Latinos for National Hispanic Heritage Month. Available online: https://www.pewresearch.org/fact-tank/2021/09/09/key-facts-about-u-s-latinos-for-national-hispanic-heritage-month/ (accessed on 5 January 2022).

Rodriguez-Jenkins, Jessica. 2014. Complex inequality: A contextual parenting framework for Latino infants. *Children and Youth Services Review* 44: 317–27. [CrossRef]

Stein, Gabriela L., Roberto Gonzales, Cynthia G. García Coll, and Juan I. Prandoni. 2016. Latinos in rural, new immigrant destinations: A modification of the integrative model of child development. In *Rural Ethnic Minority Youth and Families in the United States: Theory, Research, and Applications*. Edited by Lisa J. Crockett and Gustavo Carlo. Cham: Springer International, pp. 37–56. [CrossRef]

Tamis-LeMonda, Catherine S., Jacqueline D. Shannon, Natasha J. Cabrera, and Michael E. Lamb. 2004. Fathers and mothers at play with their 2- and 3-year-olds: Contributions to language and cognitive development. *Child Development* 75: 1806–20. [CrossRef]

Tamis-LeMonda, Catherine S., Rahil D. Briggs, Sandra G. McClowry, and David L. Snow. 2009. Maternal control and sensitivity, child gender, and maternal education in relation to children's behavioral outcomes in African American families. *Journal of Applied Developmental Psychology* 30: 321–31. [CrossRef]

Taylor, Zoe E., Nancy Eisenberg, Tracy L. Spinrad, and Keith F. Widaman. 2013. Longitudinal relations of intrusive parenting and effortful control to ego-resiliency during early childhood. *Child Development* 84: 1145–51. [CrossRef]

U.S. Census Bureau. 2016. *Table H3. Households by Race and Hispanic Origin of Household Reference Person and Detailed Type: 2016*; Suitland: U.S. Census Bureau.

U.S. Census Bureau. 2020a. *2020 Census Illuminates Racial and Ethnic Composition of the Country*. Available online: https://www.census.gov/library/stories/2021/08/improved-race-ethnicity-measures-reveal-united-states-population-much-more-multiracial.html (accessed on 27 October 2021).

U.S. Census Bureau. 2020b. *The Chance That Two People Chosen at Random Are of Different Race or Ethnicity Groups Has Increased Since 2010*. Available online: https://www.census.gov/library/stories/2021/08/2020-united-states-population-more-racially-ethnically-diverse-than-2010.html (accessed on 27 October 2021).

Vélez-Agosto, Nicole M., Jose G. Soto-Crespo, Monica Vizcarrondo-Oppenheimer, Stephanie Vega-Molina, and Cynthia García Coll. 2017. Bronfenbrenner's bioecological theory revision: Moving culture rom the macro into the micro. *Perspectives on Psychological Science* 12: 900–10. [CrossRef] [PubMed]

Vohs, Kathleen D., and Roy F. Baumeister, eds. 2016. *Handbook of Self-Regulation: Research, Theory, and Applications*. New York: Guilford Publications.

White, Rebecca M. B., Mark W. Roosa, Scott R. Weaver, and Rajni L. Nair. 2009. Cultural and contextual influences on parenting in Mexican American families. *Journal of Marriage and Family* 71: 61–79. [CrossRef] [PubMed]

Wood, Lauren E., and Josefina M. Grau. 2018. Associations between maternal control and child defiance among Puerto Rican-origin adolescent mothers and their toddlers: A person-centered examination. *Journal of Latina/o Psychology* 6: 264–75. [CrossRef] [PubMed]

social sciences

MDPI

Article

Adolescent Positivity and Future Orientation, Parental Psychological Control, and Young Adult Internalising Behaviours during COVID-19 in Nine Countries

Ann T. Skinner, Leyla Çiftçi, Sierra Jones, Eva Klotz, Tamara Ondrušková and Jennifer E. Lansford et al.

1   Center for Child and Family Policy, Duke University, Durham, NC 27708, USA; lansford@duke.edu (J.E.L.); dodge@duke.edu (K.A.D.)
2   Institute for Psychotherapy, Medical School Berlin, 14197 Berlin, Germany; cifley94@gmail.com
3   Department of Psychology, Duke University, Durham, NC 27708, USA; sierra.jones@duke.edu
4   Clinical Psychology, Utrecht University, 3584 CS Utrecht, The Netherlands; eva-klotz@posteo.de
5   Division of Psychiatry, University College London, London W1T 7NF, UK; t.ondruskova.16@ucl.ac.uk
6   Department of Psychology, Ateneo de Manila University, Quezon City 1008, Philippines; lpalampay@ateneo.edu
7   Department of Special Education, Hashemite University, Zarqa 13110, Jordan; suha-al@hu.edu.jo
8   Department of Humanistic Studies, University of Naples "Federico II", 80127 Naples, Italy; dario.bacchini@unina.it4
9   Eunice Kennedy Shriver, National Institute of Child Health and Human Development, Bethesda, MD 20810, USA; marc.h.bornstein@gmail.com
10   UNICEF, New York, NY 10001, USA
11   Institute for Fiscal Studies, London WC2R 2PP, UK
12   Department of Psychology, University of Macau, Macau 999078, China; chang@um.edu.mo
13   Department of Psychological and Brain Sciences, University of Massachusetts, Amherst, MA 01002, USA; kdeaterdeck@umass.edu
14   Department of Psychology, Università di Roma La Sapienza, 00017 Rome, Italy; laura.digiunta@uniroma1.it (L.D.G.); concetta.pastorelli@uniroma1.it (C.P.)
15   Centre for Child and Youth Studies, University West, 46131 Trollhättan, Sweden; sevtap.gurdal@hv.se (S.G.); emma.sorbring@hv.se (E.S.)
16   Maternal and Child Health, School of Public Health and Management, Chongqing Medical University, Chongqing 400016, China; liuqin@cqmu.edu.cn
17   Global Health Research Center, Duke Kunshan University, Kunshan 215300, China; qian.long@dukekunshan.edu.cn
18   Department of Psychology, Maseno University, Maseno 879-6112, Kenya; pauloburu@maseno.ac.ke
19   Peace Culture Foundation, Chiang Mai 50000, Thailand; sombat.tapanya@gmail.com
20   Department of Psychology, Temple University, Philadelphia, PA 19019, USA; lds@temple.edu
21   Department of Psychology, King Abdulaziz University, Jeddah 22230, Saudi Arabia
22   Department of Psychology, Universidad de San Buenaventura, Medellín 050001, Colombia; lilianauribe74@gmail.com
23   Department of Psychology, Chiang Mai University, Chiang Mai 50000, Thailand; saengduean.y@cmu.ac.th
*   Correspondence: askinner@duke.edu

Abstract: The COVID-19 pandemic disrupted many young adults' lives educationally, economically, and personally. This study investigated associations between COVID-19-related disruption and perception of increases in internalising symptoms among young adults and whether these associations were moderated by earlier measures of adolescent positivity and future orientation and parental psychological control. Participants included 1329 adolescents at Time 1, and 810 of those participants as young adults (*M* age = 20, 50.4% female) at Time 2 from 9 countries (China, Colombia, Italy, Jordan, Kenya, the Philippines, Sweden, Thailand, and the United States). Drawing from a larger longitudinal study of adolescent risk taking and young adult competence, this study controlled for earlier levels of internalising symptoms during adolescence in examining these associations. Higher levels of adolescent positivity and future orientation as well as parent psychological control during late adolescence helped protect young adults from sharper perceived increases in anxiety and depression during the first nine months of widespread pandemic lockdowns in all nine countries. Findings are discussed in terms of how families in the 21st century can foster greater resilience during

and after adolescence when faced with community-wide stressors, and the results provide new information about how psychological control may play a protective role during times of significant community-wide threats to personal health and welfare.

---

1. Introduction

The COVID-19 pandemic disrupted the lives of families around the world, presenting specific challenges to young adults. Following the widespread and rapid outbreak of the SARS-CoV-2 infection, young adults were confronted with swift and severe changes in daily routines. For many young adults, the pandemic meant pauses in education or cessation of in-person interactions during learning, changes in residence (e.g., moving back home with parents) and reduced access to health care, leisure activities, mental health services, as well as other social supports. The role of thinking about the future in a positive way is vital to adaptive adjustment in the transition from adolescence to young adulthood and greater independence (Steinberg et al. 2009). Because the pandemic disrupted the important transition for many late adolescents into young adulthood, understanding adolescents' thoughts about the future may be a window to understanding how young adults will adapt to major negative life events, and may inform parenting practices that may mitigate long-term negative psychological effects of future community-wide stressors or public health crises.

Parenting research and practice in the 20th century progressed from a focus on physical health, which dominated the 19th and early part of the 20th centuries, to emphases that included attachment and family relationships by the end of the 1940s (see Kaplan and Owens 2004 for overview). As decades passed, research stressed the importance of child temperament, parenting styles, cognition—including a focus on parenting involvement in education—agency, self-regulation, and prosocial behaviour. The COVID-19 pandemic has already had a profound influence on the direction of parenting and child development research. A large body of literature has emerged focusing on parent–child relationships, family functioning, and regional differences among how families are adjusting during the pandemic (Weeland et al. 2021). However, the pandemic is not the only influence on parenting and family functioning; economic uncertainty, climate change, increased globalisation, and modernisation of and access to technology all compete as stressors as children progress through adolescence into adulthood. Disruptions in what were once assumed to be typical developmental pathways may become even more difficult to predict. In addition to concerns about how young adults now view their future, the unpredictability of the current pandemic and the influences listed above lead us to re-examine aspects of the parent–child relationship that may influence adjustment as adolescents enter adulthood in an uncertain world.

2. COVID-19 and Mental Health

Evidence from the first months of the pandemic indicates increased rates of internalising symptoms among people from various countries and age groups (Islam et al. 2021; Ravens-Sieberer et al. 2020). A longitudinal study of internalising symptoms in adults showed increased rates of anxiety and depression during the COVID-19 pandemic lockdown; these increases were observed continually throughout the course of the pandemic (Andersen et al. 2021).

The pandemic also affected whole families and communities. At the family level, the pandemic caused reorganisation of daily routines, cuts in external support by other family members and social support systems, fear of losing family members and in the case of deaths, normal bereavement and grief processes were disrupted if not completely absent (Fegert et al. 2020). As such, stressors during the pandemic increased, whereas

the opportunities to regulate stress through outside or social activities fell apart or were completely lost.

A meta-analysis of 29 studies assessing more than 80,000 youth globally showed a higher prevalence of clinically significant symptoms of depression and anxiety after the onset of the COVID-19 pandemic compared to prior estimates (Racine et al. 2021). For example, the global estimates of depression (12.9%) and anxiety (11.6%) prior to the pandemic were much lower compared to during the pandemic (depression, 25.2%; anxiety, 20.5%). Although most of the studies in this analysis were specific to China, some included participants from North America, Europe, and other Asian countries. Similar increases have been observed in other countries. For instance, a study from Italy indicated high rates of depressive (47.5%) and anxious (14.1%) symptoms among 326 adolescents aged 14–19 years (Pisano et al. 2021). These rates are considerably higher than evidence from previous Italian epidemiological studies, which indicate the prevalence of internalising symptoms to be much lower before the pandemic (e.g., Frigerio et al. 2009; Gritti et al. 2014).

Several studies indicate that young people are at higher risk of having increased internalising symptoms compared to adults and older age groups. For example, Smith et al. (2020) identified several risk factors associated with poor mental health during the pandemic, namely younger age, female gender, lower annual income, current smoking, and the presence of physical multimorbidity. Further, a cross-sectional study in UAE found that the highest levels of generalised anxiety disorder (GAD) were among young people (71%) and females (51.7%) (Saddik et al. 2021). Higher levels of anxiety symptoms were found among those who worried about their parents or children contracting COVID-19 and transmitting COVID-19 to someone else if they contracted the virus. Other research highlights adjustment difficulties related to COVID-19 specific to young adults. In a study of 450 college students in the mid-Atlantic United States, an area hard-hit by the pandemic during 2020, results revealed that young adults reported increases in their inability to focus, increased anxiety and depression, and excess time spent searching for information about COVID-19 (Kecojevic et al. 2020). A study with college students in China noted that family economic difficulties related to COVID-19 were related to parent–child relationship difficulties, which in turn were related to increases in self-reported anxiety and depression (Cui and Hong 2021).

3. COVID-19, Positivity, and Future Orientation

The COVID-19 pandemic challenges future thinking and behaviour in part because conditions during the pandemic present young adults with a high degree of uncertainty and challenge their optimism and future outlook. Positivity is defined as the degree to which an individual has an affirming regard for their own abilities and qualities, confidence that others will support them in their goals, and a general outlook on life that is hopeful and optimistic (Caprara et al. 2012). Future orientation has many additional components, including cognitive (How much do I think about the future?), attitudinal (How much am I willing to give up now to wait for a better outcome later?), and motivational goals (How much time do I spend planning to achieve long-term goals?) (Steinberg et al. 2009). Further, the development of future orientation is influenced by several factors, including adolescents' social and family environment (Seginer 2009). Future-oriented thinking and behaviour are associated with less maladjustment during childhood and adolescence (Hamilton et al. 2015; Holman and Silver 2005). In the sections that follow, we review the literature on positivity and future orientation and their application to the COVID-19 pandemic.

3.1. Positivity

Positivity is generally understood to be protective against psychosocial maladaptation, especially when faced with stressful events (Caprara et al. 2019; Milioni et al. 2016). It is a relatively stable trait across developmental periods (Alessandri et al. 2012), and is linked to better physical health (Caprara et al. 2017). In contrast to future orientation, which

identifies specific behaviours, positivity is a basic attitude needed to face major challenges (Caprara et al. 2019) and includes both self-esteem and optimism.

The COVID-19 pandemic presents young adults with ongoing and serious threats to predictability and safety. In the face of uncertainty, adaptive coping skills are important predictors of positive adjustment, and positive reappraisal of negative experiences can aid this coping (Shing et al. 2016). Positivity, however, is not simply the absence of negative thought or negative emotion, and positivity does not signal the absence of depression, much in the same way well-being is not defined only by the absence of illness (World Health Organization 2004). Rather, the presence of positive emotions that outweigh negative ones, optimistic thoughts, and general life satisfaction can be protective against depression, as shown in both longitudinal and daily diary studies (Alessandri et al. 2014; Caprara et al. 2019; Fredrickson et al. 2003). For example, following the terrorist attacks in the United States on 9/11, the difference between resilient and non-resilient individuals was that resiliency was characterised by more positive emotions than negative ones, not just the complete absence of any negative thoughts (Fredrickson et al. 2003). In a study of middle school students over three years, optimism about the future was associated with decreased internalising symptoms (Smokowski et al. 2017). In 475 undergraduate students in Turkey during the COVID-19 pandemic, optimism mediated the relation between pandemic stress and depressive symptoms (Arslan and Yıldırım 2021). Not all associations between positivity and mental health are encouraging, however. Research examining positive future fantasies about daily life and academic achievement, among other things, concludes that when such fantasies lower effort and success, they can have an exacerbating impact on depression (Oettingen et al. 2016). Thus, it appears that positivity is linked with lower internalising symptoms overall, but the effect is more nuanced if the optimism creates unrealistic visions of success that lower effort and undermine goal achievement.

3.2. Future Orientation

Future orientation has long been studied in both developmental and cultural contexts (see Mönks 1968; Seginer 1986, among others). Development throughout late adolescence and young adulthood includes several future-oriented decisions and milestones related to family life, education, and work (Nurmi 1991). The COVID-19 pandemic disrupted all aspects of life related to typical developmental milestones and presented challenges to thinking about life beyond the immediate present; young adulthood is thus an ideal time to examine the impact on well-being during the pandemic via potential disruptions in typical developmental processes (Steinberg et al. 2009). A sense of hopelessness and feelings of lack of control can set in during community-wide stressors (So et al. 2018) and lead young adults to have diminished beliefs about a positive future.

However, future-oriented thinking can be a protective factor in the face of difficulties. For example, with no clear timeline and widespread uncertainty about pandemic-related restrictions and infection spread, young adults may need to reframe their thoughts about the challenges: Present restrictions can be better accepted if they are seen as a means of securing a more positive future outcome (Lalot et al. 2021). People who think a lot about their future may be better prepared when obstacles get in their way and may be less vulnerable to depression following high levels of stress (Johnson et al. 2014). Empirical findings support this hypothesis. Cross-sectionally, higher future orientation moderated the association between daily stress and symptoms of depression in college students (Zheng et al. 2019). Over time, future-oriented thinking and feelings of agency in both youth-at-risk (Stoddard et al. 2011) and the general population during COVID-19 (Lalot et al. 2021) were associated with better well-being and fewer externalising behaviours. One explanation may be that anticipating future consequences may allow individuals to focus on goals and thus avoid behaviours that reduce the likelihood of attaining them (Zheng et al. 2019). Future-oriented thinking may also be helpful during the pandemic because it allows individuals to shift their focus from present stress to anticipation of future happiness, and thus improves emotion regulation (MacLeod and Conway 2005). Much of the literature on the impact of future orientation

during periods of stress is cross-sectional, however, and limited in cross-national range. Further, little is known about the long-term associations between future orientation and coping with major stressors later in life.

4. Parental Psychological Control

Parental psychological control (e.g., intrusion, love withdrawal, and guilt induction) plays a key role during the adolescent years on the child's psychological and emotional development (Barber 1996; Barber et al. 1994; Smetana 2017). Parental control can be distinguished into behavioural control, which refers to monitoring and limit setting, and psychological control, which refers to the degree of emotional autonomy that parents grant to the child (Gray and Steinberg 1999). In this paper, we focus on psychological control, which includes any emotionally and psychologically manipulative strategies or behaviours of parents that disregard the child's autonomy and disrupt the child's volitional functioning (Barber and Xia 2013; Soenens and Vansteenkiste 2010). Such parenting techniques have a detrimental effect on children's development, future adjustment, and internalising and externalising symptoms (Arredondo et al. 2006; Chao and Aque 2009; Mandara and Pikes 2008; Silk et al. 2003). For instance, Rogers et al. (2003) found that disrupted adjustment and elevated levels of internalising are mostly reported in situations when both parents are high in psychological control. Moreover, it seems that parental psychological control is directly connected to development of depressive symptoms rather than children's resilience. Although parental psychological control has been widely studied among children and adolescents, it is important to understand the impact of psychological control during later developmental stages, such as emerging adulthood. Parental psychological control continues to be relevant during young adulthood because it can be expressed from a distance and affect the individual's self-sufficiency, emotional regulation, life satisfaction, and endorsement of adulthood status (Faherty et al. 2020; Manzeske and Stright 2009; Sholomskas and Axelrod 1986).

The COVID-19 pandemic exposed families and young adults to additional stressors and adversity, due to increased family demands, heightened levels of uncertainty, and drastic change of family routines that all impede the families' adaptive capacity (Masten and Motti-Stefanidi 2020). Indeed, emerging adults, aged 18 to 30 years, who reported higher parental psychological control, showed negative reactivity to the pandemic (Ma and Wang 2021). Despite the current cross-sectional evidence, it is not yet clear whether the effects of parental psychological control last over time. Thus, in the current study, we investigate whether higher levels of psychological control during adolescence interfere later in life with a young adult's adjustment to the COVID-19 pandemic.

5. COVID-19 in Context

Together, the literature about positivity, future orientation, and coping during community-wide stressors supports the idea that future-oriented thinking and behaviour can be protective against symptoms of anxiety and depression. The literature is less clear about how parental psychological control may impact young adult adjustment. Although the extant literature on control is clear that higher levels of parental psychological control are most often associated with maladjustment in youth, the impact of a community-wide stressor remains to be examined across a diverse sample. To examine these findings in relation to the COVID-19 pandemic across a range of countries, we utilised data from a cross-national study of parenting, adolescent risk taking, and young adult competence that included pre-pandemic data about positivity, future orientation, parental psychological control, and prior levels of adolescent internalising behaviours. The countries included in this study—China, Colombia, Italy, Jordan, Kenya, the Philippines, Sweden, Thailand, and the United States—have had varied experiences with infection rates, government response in the form of restrictions, school closures, community lockdowns, and vaccine distribution since the onset of the pandemic. We recognise that the pandemic situation in each country continues to evolve as new variants, access to vaccines, and other parameters contribute to

change over time. The information below reflects the situation in each region earlier in the pandemic closer to the time of data collection.

Southeast Asian countries that were able to limit widespread infection in 2020 were in the third quarter of 2021 dealing with overburdened health-care systems, a lack of hospital beds, equipment, and oxygen (Regan 2021). Many countries also reinstated rigorous lockdowns to slow the spread of the Delta variant of the virus. Thailand and the Philippines were able to relax tight lockdown requirements after keeping infection counts low in 2020, but by August 2021 the Philippines had the highest number of COVID-19 cases in Southeast Asia. In Eastern Asia, China tried to avoid full city lockdowns, but reimposed considerably tighter social distancing measures and COVID guidelines as the Delta variant spread throughout more than half of its provinces (Gan 2021).

In Europe, Italy was the first country to experience widespread infection and death after the initial coronavirus outbreak in China. Italy imposed containment procedures quickly after the initial 2020 outbreak that helped mitigate the spread of COVID-19 (McCann et al. 2020). Sweden closed secondary—but not primary—schools and universities, and businesses overall did not experience widespread initial closures (Goodman 2020). By August 2021, both countries have eased pandemic restrictions greatly despite their differing initial responses to the pandemic. Sweden continued to ease pandemic restrictions in August 2021, which has included continually lifting mask recommendations (Fulton 2021). To date, there has been no community-wide mask mandate. Similarly, Italy has continued to ease restrictions on mandates and instead of forcing shutdowns is implementing new measures to try to curb the spread of infection. These measures include a digital COVID-19 vaccination certificate that will be mandatory in Italy's restaurants and other public spaces (Bubola 2021).

Countries in the Middle East and Africa that were relatively successful in containing the spread of COVID-19 by responding strictly and promptly are now repeating their efforts as cases are on the rise again. In comparison to neighbouring countries, Jordan initially mostly evaded the COVID-19 pandemic. The Jordanian government enforced strict restrictions, including mandatory curfews, suspension of international travel, and the closure of schools and businesses (Santucci 2020). As of August 2021, Jordan's COVID-19 infection and death rates were increasing (Best 2021). Recommendations to close schools and workplaces and stay-at home orders were on the rise (Reuters 2021). In response to the Delta variant, the Western region of Kenya was under lockdown by August of 2021. The Kenyan government reacted quickly in the previous waves of COVID and continued to do so while also providing consistent messaging and updates to residents (Mohiddin et al. 2020). As of August 2021, public gatherings and in-person meetings were suspended countrywide, and Kenya extended its national curfew (Al Jazeera 2021).

The Americas, specifically Colombia and the United States, have been feeling the devastating effects of COVID-19 and are still battling the disease outbreak. The Colombian government imposed a strict national quarantine and lockdown in response to the COVID-19 crisis in 2020. Businesses ceased operations, a public mask mandate was issued, and the state of emergency was extended (Rueda 2021). In August 2021, Colombia was dealing with the longest COVID-19 wave to date, with intensive care units (ICUs) at 95% capacity. Despite this, Colombia and other South American countries began to reopen their economies, though vaccine access remained limited (Lopez-Carr 2021). During August 2021, the COVID-19 outbreak in the United States reached 100,000 new confirmed daily infections, a record set during the winter surge fuelled by the highly transmissible Delta variant and low vaccination rates in the southern U.S. states (Spencer and Kennedy 2021).

6. Present Study

This study utilises self-report data from adolescents and young adults and their mothers and fathers over a three-year period in a diverse group of nine countries to assess associations among COVID-19 personal disruption and perceived increases in internalising symptoms in young adulthood, and whether positivity, future-oriented thoughts

and behaviour, or parental psychological control during adolescence moderate those relations. In line with prior research during experiences with community-wide stressors, including natural disasters (Bermudez et al. 2019; Hafstad et al. 2012), 9/11 (Calderoni et al. 2006; Hendricks and Bornstein 2007), and the SARS outbreak (Hawryluck et al. 2004), we hypothesised that high levels of pandemic-related disruption during young adulthood would be related to perceived increases in internalising symptoms. Because the literature identified a gap in our cross-national understanding of how positivity and future orientation are associated with internalising behaviours during the pandemic, we also examined whether positivity and future orientation during late adolescence moderated the disruption–internalising link. We predicted that, across countries, the association between pandemic-related disruption and increases in internalising behaviour during young adulthood would be moderated by prior levels of both positivity and future orientation during adolescence, even when controlling for adolescents' prior pre-pandemic levels of internalising symptoms, such that more positivity and higher levels of future orientation during adolescence would buffer the association between pandemic-related disruption and increases in internalising symptoms. Further, we predicted that psychological control imposed by parents during adolescence could impair young adults' response to the COVID-19 pandemic and its stressors and would moderate the relation between disruption and perceived increases in internalising such that higher levels of parental psychological control during adolescence would be related to a greater perceived increase in internalising during the pandemic for young adults.

7. Method

7.1. Participants

Participants for this study were 1329 youth at Time 1 (50.4% female) and their mothers and fathers who were drawn from a larger study (see Lansford et al. 2016 for more information). Time 1 data collection occurred over approximately a 13 month period when youth were, on average, between 16.67 ($SD = 0.96$) and 17.75 ($SD = 1.02$) years old. To reduce the time burden on participants, psychological control, prior level of interalising behaviour and positivity were collected at age 16, and future orientation was collected at age 17. At Time 2, which occurred during the COVID-19 pandemic, young adults were on average 20.00 years old ($SD = 1.16$). Participants were recruited from the following sites: Chongqing, China ($n = 114$), Medellín, Colombia ($n = 108$), Rome and Naples, Italy ($n = 213$), Zarqa, Jordan ($n = 114$), Kisumu, Kenya ($n = 100$), Manila, Philippines ($n = 120$), Trollhättan/Vänersborg, Sweden ($n = 129$), Chiang Mai, Thailand ($n = 120$), and Durham, North Carolina, United States ($n = 311$). On average, parents had 13.71 years of education ($SD = 4.18$). Across countries, schools had been closed for an average of 20.41 weeks ($SD = 12.07$) due to pandemic-related lockdowns when young adults completed the COVID measure. Figure 1 shows a timeline of lockdowns and data collection dates for each country.
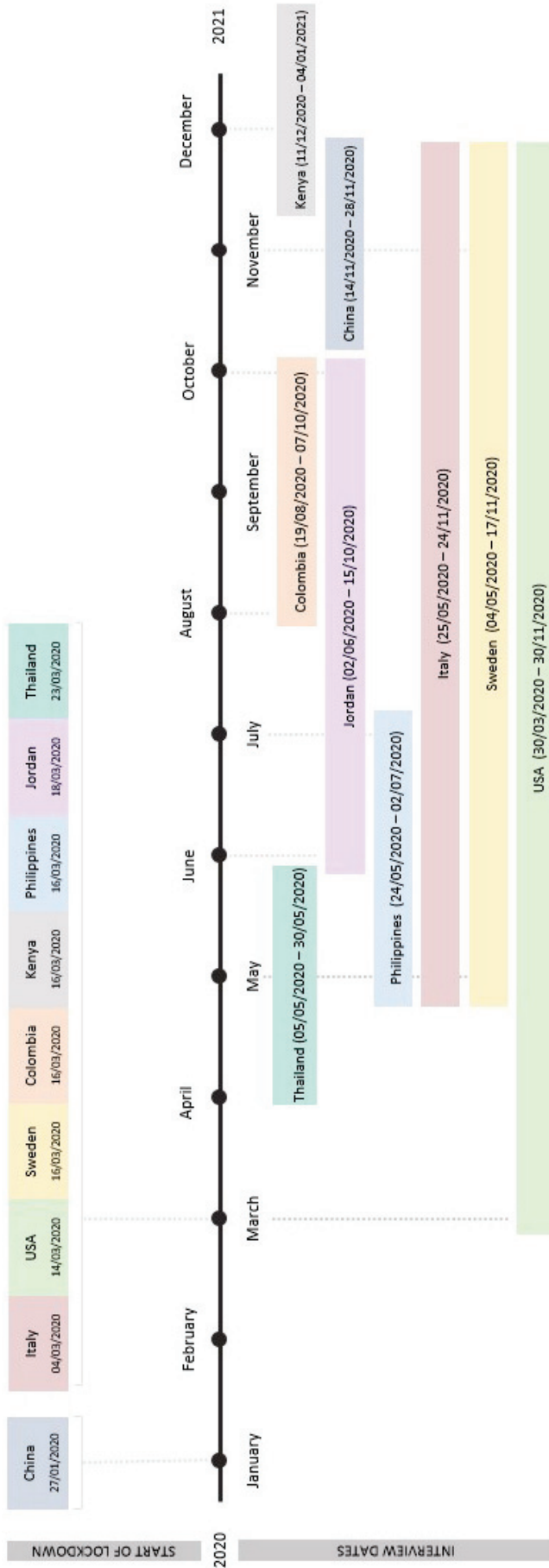
Figure 1. Timeline of COVID Lockdowns and Data Collection Dates.

Due to rapid data collection endeavours and difficulties with interviewing in person during the pandemic, data were collected from 810 young adults (60.9%) at age 20 between late March 2020 and early January 2021. Young adults who participated at age 20 did not significantly differ from adolescents who participated at age 16 with regard to their prior levels of internalising behaviours, $t(1040) = -1.91$, $p = 0.055$, or their parents' years of education, $t(1316) = -0.436$, $p = 0.66$. However, participants at age 20 were more likely to be female than participants who did not provide age 20 data, $\chi^2 (1) = 16.99$, $p < 0.001$.

7.2. Procedures

Prior to beginning interviews in all countries, ethics board review was obtained through each participating university. To ensure linguistic and construct equivalence of each measure, translators fluent in English and the target language provided forward- and backward-translation of items (Erkut 2010). When youth were adolescents, trained interviewers in each site contacted families to conduct individual interviews in person, by telephone, by mail, in writing, or via a web-based interview, according to participant preference. Informed consent was provided by parents until young people reached majority age and could provide their own consent. Adolescent and parent interviews at Time 1 lasted approximately 60–90 min. At age 20, all sites were experiencing varying restrictions due to pandemic-related lockdowns, and no in-person interviews could be conducted. Instead, using telephone, written, or web-based surveys according to participant preference, interviewers captured a brief assessment of COVID-19-related experiences with a 19-item questionnaire lasting no more than 5 min. Participants were provided small stipends in appreciation for their time.

7.3. Measures

7.3.1. Positivity

During adolescence, youth responded to an 8-item Positivity Scale (Caprara et al. 2012). Each item was scaled from 1 = strongly disagree to 5 = strongly agree to measure how positively the adolescents felt about themselves and the future. Sample items included, "I have great faith in the future", "I feel I have many things to be proud of", and "I am satisfied with my life". A mean score was derived from 8 items, with one item reverse-scored. The scale had good reliability in our sample ($\alpha = 0.84$). Previous work established internal and construct validity, test–retest reliability, and measurement invariance across cultures (Caprara et al. 2012).

7.3.2. Future Orientation

Adolescent future orientation was measured using 15 items from the Future Orientation Scale (see Steinberg et al. 2009 for psychometrics and full scale). To reduce socially desirable responding, the measures used formatting originally designed by Harter (1982). Questions were asked in two parts; first, adolescents chose which statement best described them, with opposing statements separated by "BUT", i.e., "Some people like to plan things out one step at a time, BUT other people like to jump right into things without planning them out beforehand". Next, the respondent indicated if the statement they chose was sort of true for them or really true for them. The result was a 4-point scale ranging from really true on one side of the statement to really true on the other side of the statement. The full scaled score was a mean of all 15 items covering time perspective, planning ahead, and anticipation of future consequences. Reliability in our sample was good ($\alpha = 0.78$).

7.3.3. Psychological Control

Mothers and fathers reported about the degree to which parents utilised non-coercive discipline techniques and encouraged adolescents to express autonomy. Eleven items were adapted from earlier work (Barber 1996; Dornbusch et al. 1985; Patterson and Stouthamer-Loeber 1984; Rodgers 1966; Silk et al. 2003). Mothers and fathers were asked to respond separately about the target child; items were scored from 1 = strongly disagree to 4 = strongly

agree. Items included "I say that my child should give in on arguments rather than make people angry", and "I tell my child that my ideas are correct and that he/she should not question them". Higher scores indicated higher levels of parental psychological control and lower levels of adolescent autonomy. To reduce the number of models, and because parent–child dyadic differences were not of primary interest in this study, a mean of mother and father responses ($\alpha = 0.77$) was created. Psychometrics of the original factor structure across multiple contexts are reported elsewhere (Steinberg et al. 1991).

7.3.4. Experiences during COVID-19

At age 20, young adults completed *Experiences with COVID-19*, a measure designed to provide a quick assessment of perceived changes in psychosocial functioning, interpersonal relationships, attitudes, and behaviours related to pandemic restrictions, and other personal experiences with the pandemic; the development of this measure based on other community-wide disasters and stressors is described elsewhere (Skinner et al. 2021). Depending on the site, young adults completed this measure between late March of 2020 and early January of 2021.

COVID-19 disruption. Young adults were asked to rate their own personal experience with disruption due to the pandemic on a scale of 1 to 10, with 1 = not at all disruptive and 10 = extremely disruptive. Respondents were asked to consider changes in schooling, family, work, and other routines within a single item, to capture a generalised feeling of overall disruption. More detail about the source of the stressor (e.g., work vs. school) may be useful in other studies, but our main area of concern was overall disruption and its possible association with adjustment. Thus, brevity in survey administration time was prioritised in keeping to a single item.

Perceived increases in internalising behaviour. Young adults responded to two items assessing their perceptions about increases in their own feelings of anxiety and depression "now as compared to before the outbreak of COVID-19 in your community". Self-reported perceptions of changes in internalising symptoms have been shown to be correlated with more objective measures of anxiety and depression (Zimmerman et al. 2004). An average score between two items ($r = 0.53$, $p < 0.01$) was created from "I feel more anxious now than I did before the outbreak" and "I feel more depressed now than I did before the outbreak". Respondents reported on a four-point scale ranging from 1 = strongly disagree to 4 = strongly agree. Higher means indicated self-reported perceived increases in internalising behaviour at the time of interview compared to before pandemic onset. These 2 perceived changes in internalising items have been utilised by other research teams examining mental health during the pandemic (e.g., Davidson et al. 2020; Kapetanovic et al. 2021).

7.3.5. Covariates

Using the Achenbach Youth Self-Report of the Child Behaviour Checklist (Achenbach 1991), we controlled for prior levels of internalising behaviour measured at age 16 using the 29 internalising items. Additionally, we controlled for the number of weeks that had elapsed since the onset of the pandemic in each site, which ranged from 1 to 40 weeks across all respondents, as this may impact perceptions of disruption in each location. We also controlled for highest level of education reached by either parent (as a proxy for SES) and adolescent gender.

7.4. Statistical Analysis

All preliminary analyses, including descriptive statistics and Pearson's correlations, were conducted in SPSS Version 23.0. M*Plus* Version 8.4 (Muthén and Muthén 2017) was used for all further analyses. Missing data were handled via full information maximum likelihood estimation because it uses all available information to estimate each model parameter, thus making it an appropriate choice if the data are either MAR or MCAR (Kelloway 2014; Schafer and Graham 2002). All variables were standardised before further analyses. Figure 2 displays the statistical model. A multigroup structural equation model,

with countries presenting nine different groups, was conducted to examine our research questions. Because the groups are not nationally representative, we do not have specific hypotheses about how each country may differ in response to the pandemic, but we are able to identify those countries whose slopes and intercepts differed from the others. The model included the association between pandemic-related disruption and changes in youth internalising behaviours as well as all control variables (parents' level of education, weeks since the pandemic began, adolescent gender, and prior levels of internalising behaviours), and the moderators positivity, future orientation, and psychological control. To test the interaction between disruption and positivity, future orientation, or psychological control, three subsequent analytical models were run that included the respective interaction term and the other potential moderators as predictors. The model constrained the path coefficients to be equal across countries but allowed the intercepts, covariances, and residual variances to vary by country. Sample sizes, means, and correlations of all study variables are presented in Table 1.
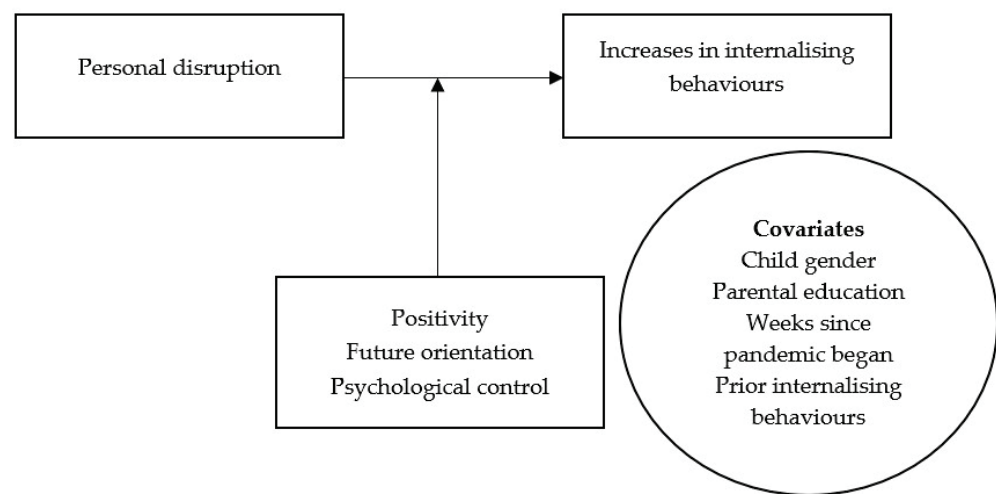
Figure 2. Statistical Model.

Model fit was assessed with four fit indices: (1) the comparative fit index (CFI), (2) the Tucker–Lewis index (TLI), (3) the root mean square error of approximation (RMSEA), and (4) the standardised root mean square residual (SRMR). These multiple fit indices were used because they examine different types of model fit and, when used together, provide a more reliable assessment (Brown 2006). Recommended guidelines for each model fit index were used: CFI/TLI > 0.95, RMSEA < 0.06, and SRMR < 0.08 represented good fit (Kline 2005). When the model did not fit the data well, country-specific coefficients were released based on modification indices and theoretical meaningfulness until good model fit was achieved. A p-value ≤ 0.05 was used to make inferences about statistical significance. To interpret effect sizes of all estimates, guidelines by Cohen (1992) were used. Values of 0.10 are considered a small effect, values of 0.30 are considered a medium effect, and values of 0.50 or more are considered a large effect. We created the interaction plots by graphing 1 *SD* above the mean of the moderator and 1 *SD* below the mean.

Table 1. Sample Sizes (*n*), Means (*M*), Standard Deviations (*SD*), and Correlations of Main Study Variables.

Variables	*n*	*M*	*SD*	Pearson Correlations								
				1	2	3	4	5	6	7	8	9
1. Child gender	1329	-	-	-								
2. Parents' education	1318	13.71	4.18	0.00	-							
3. Weeks since pandemic began	810	20.41	12.1	0.00	−0.28 **	-						
4. Pandemic disruption	802	6.21	2.48	−0.13 **	0.05	−0.13 **	-					
5. Adolescent internalising	1042	14.1	8.97	−0.23 **	−0.02	−0.001	0.08 *	-				
6. Perceived internalising increases during pandemic	810	4.51	1.71	−0.27 **	0.10 **	−0.06	0.30 **	0.26 **	-			
7. Positivity	1039	3.92	0.65	0.01	0.03	−0.01	0.11 **	−0.47 **	−0.05	-		
8. Future orientation	998	2.98	0.51	−0.07 *	0.02	0.13 **	0.10 **	0.01	0.03	0.10 **	-	
9. Psychological control	1065	2.09	0.39	0.06	−0.34 **	0.14 **	0.09 *	0.00	−0.06	0.07 *	−0.03	-

* $p < 0.05$. ** $p < 0.01$.

8. Results

8.1. Main and Moderation Effects

On average, positivity and future orientation were high across all participants. Internalising behaviours during adolescence were strongly negatively correlated with positivity during adolescence, and moderately correlated with perceived increases in internalising behaviours during young adulthood. Positivity and future orientation during adolescence showed a small correlation. Both positivity and future orientation showed small correlations with personal disruption during young adulthood. Parental psychological control and positivity were weakly correlated.

Model fit statistics suggested good fit of all models (Table 2). Parameter estimates of both models can be found in Table 2.

Table 2. FIML Multiple Group Model Results.

Variables	Main Model	Moderation by Positivity	Moderation by Future Orientation	Moderation by Parental Psycholological Control
	Increases in Internalising Behaviours *b* (SE)			
Child gender	−0.48 (0.07) **	−0.50 (0.07) **	−0.44 (0.07) **	−0.49 (0.07) **
Parents' education	0.07 (0.034) *	0.07 (0.03) *	0.07 (0.03) *	0.07 (0.03) **
Weeks since pandemic began	−0.01 (0.06)	−0.01 (0.06)	−0.01 (0.06)	−0.01 (0.06)
Pandemic disruption	0.27 (0.03) **	0.28 (0.03) **	0.26 (0.03) **	0.27 (0.03) **
Adolescent internalising	0.16 (0.04) **	0.15 (0.04) **	0.16 (0.04) **	0.16 (0.04) **
Positivity	0.12 (0.046) *	0.10 (0.47) *	0.12 (0.05) *	0.13 (0.05) *
Future orientation	0.01 (0.04)	−0.01 (0.03)	−0.02 (0.03)	−0.01 (0.03)
Psychological control	−0.02 (0.04)	0.00 (0.04)	−0.01 (0.04)	−0.02 (0.04)
Positivity × pandemic disruption	-	−0.09 (0.03) *	-	-
Future orientation × pandemic disruption	-	-	−0.07 (0.03) *	-
Psychological control × pandemic disruption	-	-	-	−0.07 (0.03) *
Country-Specific Coefficients				
Kenya—child gender	0.17 (0.20)	0.14 (0.20)	0.13 (0.20)	0.16 (0.20)
Thailand—child gender	−0.02 (0.18)	−0.03 (0.18)	-	−0.02 (0.18)
Italy—positivity	−0.17 (0.07) *	−0.19 (0.07) *	−0.17 (0.08) *	−0.17 (0.07) *
Kenya—positivity	0.12 (0.05) *	-	-	-
US—positivity	−0.12 (0.07)	−0.10 (0.07)	−0.12 (0.07)	−0.11 (0.07)
Colombia—future orientation	−0.25 (0.10) *	-	-	-
Jordan—weeks since pandemic began	0.72 (0.23) *	0.71 (0.23) *	0.72 (0.23) *	0.71 (0.23) *
Model Fit Statistics				
Chi-square test (degrees of freedom), *p*-value	66.59 (58), 0.2	75.71 (67), 0.22	79.27 (68), 0.16	78.48 (67), 0.15
CFI/TLI	0.96/0.95	0.96/0.95	0.96/0.94	0.95/0.93
RMSEA	0.03	0.03	0.03	0.03
SRMR	0.03	0.03	0.03	0.03

Note. B = Standardised coefficient. CFI = the comparative fit index; TLI = the Tucker–Lewis index; RMSEA = the root mean square error of approximation; SRMR = standardised root mean square residual. * $p < 0.05$. ** $p < 0.01$.

8.1.1. Perceived Increases in Internalising Behaviours

Significant positive associations were found between the experience of disruption due to COVID-19 and perceived increases in internalising behaviours for adolescents across all countries. Higher levels of experienced disruption due to COVID-19 were thus related to higher perceived increases in internalising behaviours in young adults ($b = 0.27$; $SE = 0.03$, $p < 0.01$).

8.1.2. Positivity

Positivity during adolescence was significantly related to perceived increases in internalising behaviours in young adults across all countries except Italy ($b = 0.12$; $SE = 0.046$,

$p < 0.05$). For adolescents in Italy, more positive views about life were negatively associated with perceived increases in internalising behaviours ($b = -0.17$, $SE = 0.07$, $p < 0.05$).

There was consistent evidence across countries that the relation between experienced disruption due to COVID-19 and perceived increases in internalising behaviours in young adults was moderated by adolescents' positivity (see Figure 3). Higher levels of personal disruption due to the pandemic were associated with greater perceived increases in internalising behaviours among adolescents who had less positive views about life ($b = -0.09$, $SE = 0.03$, $p < 0.05$). This association had a small effect size (Cohen 1992). High levels of positivity during late adolescence may thus have a protective role in the association between disruption due to COVID-19 and perceived increases in internalising behaviours in young adults.
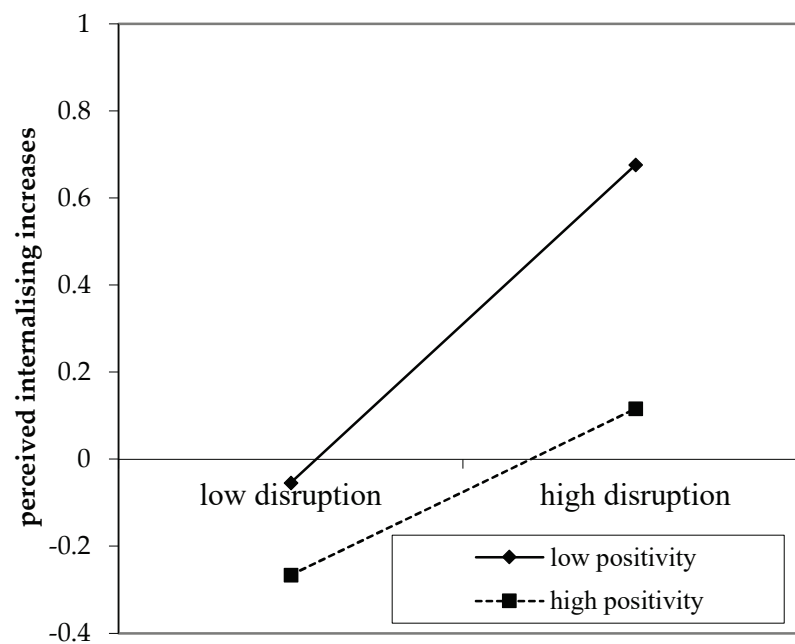
Figure 3. Moderation by Positivity.

8.1.3. Future Orientation

Across all countries, adolescent future orientation during adolescence was not significantly related to perceived increases in internalising behaviours in young adults at age 20. However, there was consistent evidence across countries that the relation between experienced disruption due to COVID-19 and perceived increases in internalising behaviours in young adults was moderated by adolescents' future orientation (see Figure 4). Greater personal disruption was associated with greater perceived increases in internalising behaviours among young adults who reported lower levels of future orientation ($b = 0.07$, $SE = 0.03$, $p < 0.05$). Use of more future-oriented thoughts and behaviours such as planning ahead during adolescence may thus have a protective role in the association between disruption due to COVID-19 and perceived increases in internalising behaviours in young adults. This association had a small effect size (Cohen 1992).
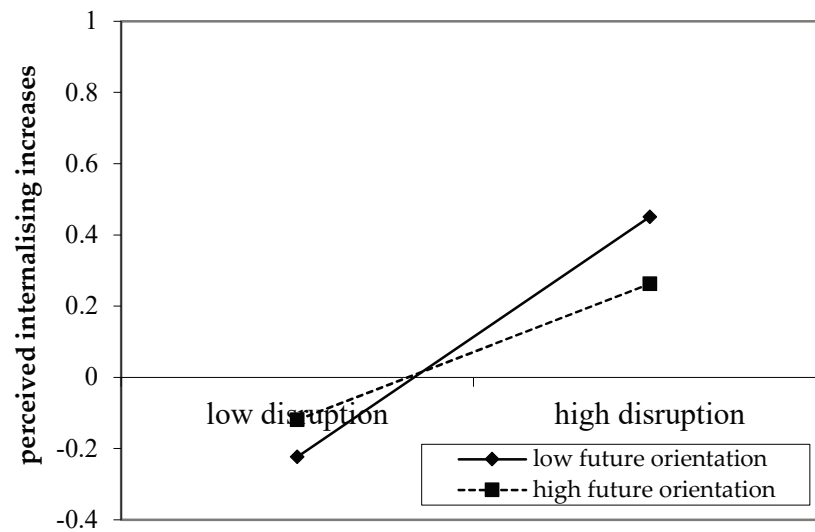
Figure 4. Moderation by Future Orientation.

8.1.4. Parental Psychological Control

Across all countries, parental psychological control was not significantly related to perceived increases in internalising behaviours in young adults at age 20. However, across all countries, the relation between experienced disruption due to COVID-19 and perceived increases in internalising behaviours in young adults was moderated by parental psychological control during adolescence (see Figure 5). Greater personal disruption was associated with greater perceived increases in internalising behaviours among young adults who had lower levels of parental psychological control during adolescence ($b = 0.07$, $SE = 0.03$, $p < 0.05$). Higher levels of parental psychological control during adolescence may thus have a protective role in the association between disruption due to COVID-19 and perceived increases in internalising behaviours in young adults. This association also had a small effect size (Cohen 1992).
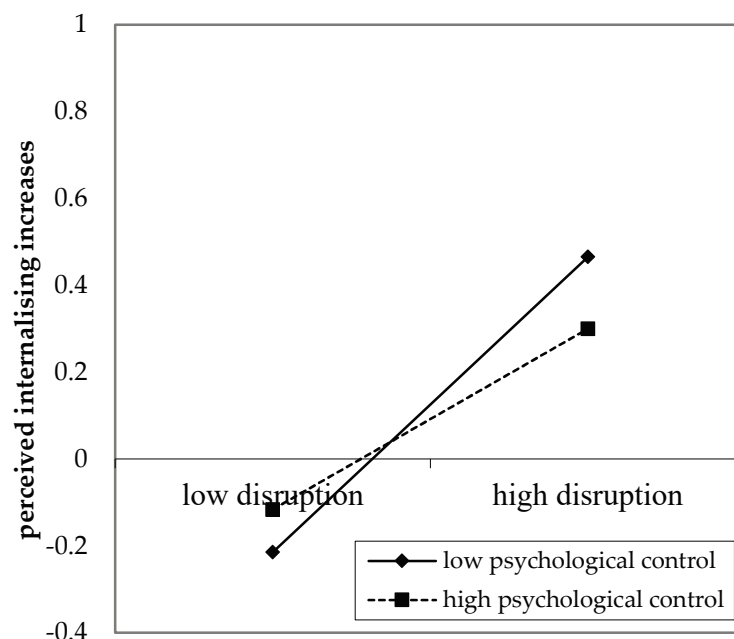

Figure 5. Moderation by Parental Psychological Control.

9. Discussion

This study examined the relation between COVID-19 personal disruption during the pandemic and perceived increases in young adults' internalising symptoms, capitalising on a nine-country study in which pre-pandemic levels of internalising symptoms, positivity, future orientation, and parental psychological control during adolescence could be studied. Because the pandemic disrupted major developmental opportunities for growth, the young adult population is particularly compelling to study. In our sample, 52% of young adults reported their anxiety had increased as compared to before the pandemic, and 35% reported increases in depression, further highlighting the need to learn more about ways to dampen such impacts in future crises. This finding is in line with prior research during the COVID-19 pandemic showing the young adult population is especially vulnerable; although clinical levels of internalising symptoms were higher than national averages among young adults even before the pandemic began, significant increases were reported by young adults as early as 1–2 months after the pandemic began (Lee et al. 2020).

Our first hypothesis, that higher levels of self-reported disruption would be associated with perceived increases in internalising behaviour as compared to before the pandemic, was supported, with a 1 *SD* increase in the level of disruption associated with a 0.27 *SD* perceived increase in internalising symptoms. Increases in anxiety and depression among the young adult population, especially during times where access to leisure activities, social support, and medical and mental health services are reduced, are of concern because of their potential to impact future well-being, engagement in work and leisure activities, and physical health (Masten 2021; Masten and Motti-Stefanidi 2020).

With one exception in one country (Italy), adolescent positivity was associated with perceived increases in internalising behaviours during the pandemic, but no significant direct relations were found between adolescent future-orientation or parental psychological control and perceived increases in young adult internalising. Consistent with our hypotheses, positivity and future orientation during adolescence moderated the relation between pandemic disruption and perceived increases in internalising behaviour, suggesting a protective effect of future-oriented thinking and behaviour. McElroy et al. (2020) distinguished between two types of anxiety that arose due to the pandemic: disease anxiety and consequence anxiety. They found that, while some people (e.g., at-risk groups with physical health conditions) were worried about the disease itself, older adolescents and young adults were most concerned about the consequences of the pandemic. As such, this study shows that increases in internalising symptoms among young adults may be associated with pandemic-related factors related to long-term consequences for their future, such as educational and economic disruptions (Ahmed et al. 2020; McElroy et al. 2020).

Surprisingly, and contrary to our hypothesis, higher levels of psychological control during adolescence also served a buffering role between pandemic-related disruption and perceived increases in internalising behaviours. Although parental psychological control is consistently linked to higher levels of maladjustment for children, we speculate that the nature of the pandemic played a role in this unusual finding. The literature on community-wide stressors such as natural disasters and long-standing political violence provides some clues to why control may serve a protective role in its possible provisions of emotional security (see Cummings et al. 2010). During circumstances where multiple ecosystem levels are disrupted, and where physical and emotional health and well-being are threatened, young adults who might otherwise be disempowered by high levels of parental psychological control may instead—in these unusual circumstances—find predictability and consistency in a more controlling parent–child relationship.

The development of resiliency among young adults during the pandemic may come via several pathways. Parents can play a key role during childhood and adolescence to help buffer the negative impact of future community-wide stressors or other disruptive events in young adult lives. Through parent–child interaction, modelling interests and goals, and verbalising future-oriented thinking and optimism about personal goals and education (Kerpelman et al. 2008), parents set normative standards that can be adopted by adolescents

in their thoughts and behaviours (Nurmi 1991). Some aspects of parental control may also serve a protective role during the pandemic. In one study with Dutch adolescents and their parents, the authors found that although youth reported an increase in rules set by parents during the pandemic and a temporary decrease in autonomy, most youth reported they felt these additional restrictions were legitimate and warranted (Bülow et al. 2021). Thus, if parents and young adults resided together during the pandemic and similar or even higher levels of control compared to before the pandemic were present, young adults may have understood these parenting behaviours to be protective. Further, given that the relation between psychological control and depressive symptoms is stronger for those with poor sadness regulation (Cui et al. 2014), it is possible the pandemic may have provided an opportunity for families to engage in more positive family interactions during the pandemic (see Bülow et al. 2021). If positive family interactions provided a way to increase emotion regulation skills among young adults, this could account for the diminished impact of psychological control on adjustment, which is typically maladaptive.

The literature on adverse childhood experiences (ACEs) also informs our understanding of other ways in which resilience may be developed as the impact of ACEs on biological, epigenetic, and psychosocial outcomes is realised (Anda et al. 2006; Merrick et al. 2017). The literature on ACEs suggests an ecological systems approach, as families and communities must be provided the skills, resources and support to overcome adversity (Rosanbalm et al. 2020). Empirically informed approaches to public policy and treatment practices (see, e.g., Blair et al. 2019) can improve outcomes for families and conserve limited resources.

9.1. Strengths and Limitations

The findings from this study should be interpreted in the context of several strengths and limitations to guide future research. Although this study included only self-report data, which is somewhat limiting in scope due to possible reporter bias, both pre-pandemic and pandemic data were utilised, and prior levels of internalising behaviours were controlled to rule out the possibility that increases in internalising behaviours were experienced only by those who were already experiencing symptoms of anxiety and depression before pandemic onset. Reporting about positivity is also best performed by adolescents themselves, as outside observers are not reliable reporters of thoughts and experiences of optimism (Caprara et al. 2019). Second, this study also included a measure not just of optimism and positive thinking (positivity), but of behaviours associated with planning, time perspective, and anticipation of future consequences (future orientation), which signals behavioural changes that can accompany positive thoughts and views about the future. Parents' reports about their own positivity and future orientation or child reports about their perceptions of their parents' behaviour would strengthen the argument that parents are able to influence their adolescents' experiences with future-oriented thoughts and behaviour, especially during times of stress. Because our measure of disruption included a single item, we are only able to base our conclusions on how well an overall feeling of disruption predicts perceived changes in internalising behaviour and are not able to distinguish if these relations were due to disruptions in different areas, such as school, home, work, or social interaction. It is also possible that the time elapsed between community school closures and data collection may impact individual perceptions of disruption. For example, individuals who responded to the survey shortly into lockdowns may perceive disruption and increases in internalising to a lesser to degree than those who completed the survey after a few months of closures. However, we included a control variable of "weeks since the pandemic began" to minimise the possibility of spurious relations between the predictor and outcome. Because parental psychological control was measured during adolescence rather than concurrently with measures of pandemic disruption and perceived increases in internalising behaviours, we cannot be sure that psychological control has the same protective association were it to occur within the time period of the community-wide stressor. Indeed, psychological control typically has a negative impact on adjustment. Thus, a concurrent measure of all

three moderators would inform our understanding not only of how parenting behaviours and youth perceptions change over time, but also whether the associations among the moderators we measured and the disruption–internalising link persist within a single time point during young adulthood. Finally, future work that pairs self-report measures of future orientation with observable behavioural measures of planning would add to the richness of the data.

9.2. Relevance for Parenting and Parent–Child Relationships in the 21st Century

Parents and children in the 21st century face a range of community-wide stressors with unclear solutions. Climate change, sectarian violence, and economic volatility, to name a few, promise to influence development around the world. Although uncertainty about the security of future events can increase parental stress and negatively impact parenting, exposure to some stressors can also contribute to resilience in children as parents try to restore a sense of "normality" (Prime et al. 2020) and emotional security. Resilience literature (see Masten 2015) emphasises several important applicable concepts. First, co-occurring stressors will disproportionately impact low-income countries and families. Thus, family and organisational supports are especially needed in already at-risk communities in order to shore up resources for additional community-wide stressors. Second, part of the distinction between maladjustment and resilience when facing stressors may lie in parents' ability to engage youth in recovery planning, foster feelings of self-efficacy, and establish hope for the future (Masten and Motti-Stefanidi 2020). Recent research supports the idea that parental focus on future orientation can help buffer the impact of negative life events across a variety of settings. In a longitudinal study with adolescents in the United States, for example, parental involvement in activities of middle adolescence and parental advice about the future predicted adolescent positive adjustment and occupational goals two years later (Lee and Yu 2017).

Child development theories offer several explanations for how parenting may impact children's future-oriented thinking and behaviour. For example, Seginer's (2008) work with children exposed to political violence showed that children need exposure to challenges to develop resilience and that the development of hope is an important mediator in the link between challenge/resilience and future orientation (see also Zoellner and Maercker 2006). Further, research with youth exposed to community and political violence highlights that adolescents may be more vulnerable to psychological effects of stress exposure than younger children (Shaw 2003). Parenting is one resource for reducing adverse impacts on children's social-emotional development (Perrin et al. 2016), and although the similarities between the COVID-19 pandemic and exposure to other community-wide stressors are yet to be confirmed, this study suggests that, if future orientation and positivity can be shaped by parents, parent–child relationships during adolescence could play a role in buffering the impact of life disruption into young adulthood. The resilience literature on ACEs (see Section 9, above) also supports the idea that efforts to improve outcomes for families facing threats to psychological and psychosocial health are best implemented from an empirically driven, community focused (e.g., schools, health service providers, and government) coordinated effort.

This study also provided new information about the role that parental psychological control may play in adjustment of young adults during a community-wide stressor. Though more research is needed to unpack which aspects and to what degree psychological control may serve a protective role during exposure to widespread threats to health and safety, the 21st century is ripe with opportunities for study. Researchers can use technology to gather more detailed information about daily fluctuations in the parent–child relationship and in youth responses to stressors, by using ecological momentary assessment or conducting studies of social media use.

10. Conclusions

This study demonstrated that across a wide range of sites in nine countries, with varying experiences and responses to the pandemic, adolescent positivity, future orientation, and parental psychological control during adolescence moderated the relation between disruption due to the COVID-19 pandemic and perceived increases in internalising symptoms several years later. Consistently across sites, we found that higher levels of adolescent positivity and future orientation may protect young adults from stronger relations between disruption and symptoms of depression and anxiety compared to young adults with comparatively lower adolescent levels of positivity and future orientation. Similarly, in contrast with prior research, we also found evidence that parental psychological control during adolescence may have provided some stability and predictability necessary to buffer the relation between pandemic disruption and young adults' perceived increases in internalising symptoms. As the third and fourth decades of the 21st century may include continued disruptions to typical developmental trajectories, these findings inform our understanding of associations among long-studied psychological constructs during community-wide stressful experiences.

References

Achenbach, Thomas M. 1991. *Integrative Guide for the 1991 CBCL/4-18, YSR, and TRF Profiles*. Burlington: Department of Psychiatry, University of Vermont.

Ahmed, Faheem, Na'eem Ahmed, Christopher Pissarides, and Joseph Stiglitz. 2020. Why inequality could spread COVID-19. *The Lancet Public Health* 5: e240. [CrossRef]

Al Jazeera. 2021. Kenya Bans In-Person Meetings, Public Gatherings as COVID Surges. Available online: https://www.aljazeera.com/news/2021/7/30/kenya-bans-in-person-meetings-public-gatherings-as-covid-surges (accessed on 26 October 2021).

Alessandri, Guido, Antonio Zuffianò, Richard Fabes, Michele Vecchione, and Carol Martin. 2014. Linking positive affect and positive self-beliefs in daily life. *Journal of Happiness Studies* 15: 1479–93. [CrossRef]

Alessandri, Guido, Gian Vittorio Caprara, and John Tisak. 2012. The unique contribution of positive orientation to optimal functioning. *European Psychologist* 17: 44–54. [CrossRef]

Anda, Robert F., Vincent J. Felitti, J. Douglas Bremner, John D. Walker, C. H. Whitfield, Bruce D. Perry, Sh R. Dube, and Wayne H. Giles. 2006. The enduring effects of abuse and related adverse experiences in childhood. *European Archives of Psychiatry and Clinical Neuroscience* 256: 174–86. [CrossRef]

Andersen, Astrid Juhl, Murielle Mary-Krause, Joel José Herranz Bustamante, Mégane Héron, Tarik El Aarbaoui, and Maria Melchior. 2021. Symptoms of anxiety/depression during the COVID-19 pandemic and associated lockdown in the community: Longitudinal data from the TEMPO cohort in France. *BMC Psychiatry* 21: 381. [CrossRef]

Arredondo, Elva M., John P. Elder, Guadalupe X. Ayala, Nadia Campbell, Barbara Baquero, and Susan Duerksen. 2006. Is parenting style related to children's healthy eating and physical activity in Latino families? *Health Education Research* 21: 862–71. [CrossRef] [PubMed]

Arslan, Gökmen, and Murat Yıldırım. 2021. Coronavirus stress, meaningful living, optimism, and depressive symptoms: A study of moderated mediation model. *Australian Journal of Psychology* 73: 113–24. [CrossRef]

Barber, Brian K. 1996. Parental psychological control: Revisiting a neglected construct. *Child Development* 67: 3296–319. [CrossRef]

Barber, Brian K., and Mingzhu Xia. 2013. The centrality of control to parenting and its effects. In *Authoritative Parenting: Synthesizing Nurturance and Discipline for Optimal Child Development*. Washington, DC: American Psychological Association, pp. 61–87. [CrossRef]

Barber, Brian K., Joseph E. Olsen, and Shobha C. Shagle. 1994. Association between parental psychological and behavioral control and youth internalized and externatilzed behavior. *Child Development* 65: 1120–36. [CrossRef] [PubMed]

Bermudez, Laura Gauer, Lindsay Stark, Cyril Bennouna, Celina Jensen, Alina Potts, Inah Fatoumata Kaloga, Ricardo Tilus, Jean Emmanuel Buteauf, Mendy Marshg, Anna Hooverc, and et al. 2019. Converging drivers of interpersonal violence: Findings from a qualitative study in post-hurricane Haiti. *Child Abuse & Neglect* 89: 178–91.

Best, R. 2021. Coronavirus (COVID-19) Deaths Worldwide per One Million Population as of August 17, 2021, by Country [Data Set]. Statista. Available online: https://www.statista.com/statistics/1104709/coronavirus-deaths-worldwide-per-million-inhabitants/ (accessed on 17 August 2021).

Blair, Katelyn, James Topitzes, and Joshua P. Mersky. 2019. Do parents' adverse childhood experiences influence treatment responses to parent-child interaction therapy? An exploratory study with a child welfare sample. *Child & Family Behavior Therapy* 41: 73–83. [CrossRef]

Brown, Timothy A. 2006. *Confirmatory Factor Analysis for Applied Research*. New York: Guilford Press.

Bubola, E. 2021. Italy says it will require proof of vaccination or a negative test for many social activities. *The New York Times*. Available online: https://www.nytimes.com/2021/07/22/world/europe/italy-covid-vaccine-proof-activities.html (accessed on 26 October 2021).

Bülow, Anne, Loes Keijsers, Savannah Boele, Eeske van Roekel, and Jaap J. A. Denissen. 2021. Parenting adolescents in times of a pandemic: Changes in relationship quality, autonomy support, and parental control? *Developmental Psychology* 57: 1582. [CrossRef] [PubMed]

Calderoni, Michele E., Elizabeth M. Alderman, Ellen J. Silver, and Laurie J. Bauman. 2006. The mental health impact of 9/11 on inner-city high school students 20 miles north of Ground Zero. *Journal of Adolescent Health* 39: 57–65. [CrossRef]

Caprara, Gian Vittorio, Guido Alessandri, and Mariagiovanna Caprara. 2019. Associations of positive orientation with health and psychosocial adaptation: A review of findings and perspectives. *Asian Journal of Social Psychology* 22: 126–32. [CrossRef]

Caprara, Gian Vittorio, Guido Alessandri, Nancy Eisenberg, A. Kupfer, Patrizia Steca, Maria Giovanna Caprara, Susumu Yamaguchi, Ai Fukuzawa, and John Abela. 2012. The positivity scale. *Psychological Assessment* 24: 701–12. [CrossRef] [PubMed]

Caprara, Mariagiovanna, Laura Di Giunta, and Gian Vittorio Caprara. 2017. Association of positivity with health problems in old age: Preliminary findings from Spanish middle class seniors. *Journal of Happiness Studies* 18: 1339–58. [CrossRef]

Chao, Ruth K., and Christine Aque. 2009. Interpretations of parental control by Asian immigrant and European American youth. *Journal of Family Psychology* 23: 342. [CrossRef] [PubMed]

Cohen, Jacob. 1992. A power primer. *Psychological Bulletin* 112: 155–59. [CrossRef]

Cui, Lixian, Amanda Sheffield Morris, Michael M. Criss, Benjamin J. Houltberg, and Jennifer S. Silk. 2014. Parental psychological control and adolescent adjustment: The role of adolescent emotion regulation. *Parenting* 14: 47–67. [CrossRef]

Cui, Ming, and Peipei Hong. 2021. COVID-19 and mental health of young adult children in China: Economic impact, family dynamics, and resilience. *Family Relations* 70: 1358–68. [CrossRef]

Cummings, E. Mark, Christine E. Merrilees, Alice C. Schermerhorn, Marcie C. Goeke-Morey, Peter Shirlow, and Ed Cairns. 2010. Testing a social ecological model for relations between political violence and child adjustment in Northern Ireland. *Development and Psychopathology* 22: 405–18. [CrossRef] [PubMed]

Davidson, Bridget, Ellyn Schmidt, Carolina Mallar, Farah Mahmoud, William Rothenberg, Julieta Hernandez, Michelle Berkovits, Jason Jent, Alan Delamater, and Ruby Natale. 2020. Risk and resilience of well-being in caregivers of young children in response to the COVID-19 pandemic. *Translational Behavioral Medicine* 11: 305–13. [CrossRef] [PubMed]

Dornbusch, Sanford M., J. Merrill Carlsmith, Steven J. Bushwall, Philip L. Ritter, Herbert Leiderman, Albert H. Hastorf, and Ruth T. Gross. 1985. Single parents, extended households, and the control of adolescents. *Child Development* 56: 326–41. [CrossRef] [PubMed]

Erkut, Sumru. 2010. Developing multiple language versions of instruments for intercultural research. *Child Development Perspectives* 4: 19–24. [CrossRef]

Faherty, Amanda N., Katie Lowe, and Jeffrey Jensen Arnett. 2020. Mind games: Parental psychological control and emerging adults' adjustment. *Journal of Social and Personal Relationships* 37: 695–714. [CrossRef]

Fegert, Jörg M., Benedetto Vitiello, Paul L. Plener, and Vera Clemens. 2020. Challenges and burden of the Coronavirus 2019 (COVID-19) pandemic for child and adolescent mental health: A narrative review to highlight clinical and research needs in the acute phase and the long return to normality. *Child and Adolescent Psychiatry and Mental Health* 14: 1–11. [CrossRef]

Fredrickson, Barbara L., Michele M. Tugade, Christian E. Waugh, and Gregory R. Larkin. 2003. What good are positive emotions in crisis? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. *Journal of Personality and Social Psychology* 84: 365–76. [CrossRef] [PubMed]

Frigerio, Alessandra, Paola Rucci, Robert Goodman, Massimo Ammaniti, Ombretta Carlet, Pina Cavolina, Giovanni De Girolamo, Carlo Lenti, Loredana Lucarelli, Elisa Mani, and et al. 2009. Prevalence and correlates of mental disorders among adolescents in Italy: The PrISMA study. *European Child & Adolescent Psychiatry* 18: 217–26.

Fulton, Colm. 2021. *COVID-19 on the Rise in Swedish Cities as Delta Outbreaks Dominate*. London: Reuters. Available online: https://www.reuters.com/world/europe/covid-19-rise-swedish-cities-delta-outbreaks-dominate-2021-07-23/ (accessed on 26 October 2021).

Gan, Nectar. 2021. *China Issues New Guidelines for Face Mask Wearing Amid Delta Outbreak*. Atlanta: CNN. Available online: https://edition.cnn.com/2021/08/13/china/china-covid-mask-guideline-intl-hnk/index.html (accessed on 26 October 2021).

Goodman, Peter S. 2020. Sweden has become the world's cautionary tale. *The New York Times*. Available online: https://www.nytimes.com/2020/07/07/business/sweden-economy-coronavirus.html (accessed on 26 October 2021).

Gray, Marjory Roberts, and Laurence Steinberg. 1999. Unpacking authoritative parenting: Reassessing a multidimensional construct. *Journal of Marriage and the Family* 61: 574–87. [CrossRef]

Gritti, Antonella, Carmela Bravaccio, Simona Signoriello, Filomena Salerno, Simone Pisano, Gennaro Catone, Ciro Gallo, and Antonio Pascotto. 2014. Epidemiological study on behavioural and emotional problems in developmental age: Prevalence in a sample of Italian children, based on parent and teacher reports. *Italian Journal of Pediatrics* 40: 1–7. [CrossRef]

Hafstad, Gertrud S., Hanne Haavind, and Tine K. Jensen. 2012. Parenting after a natural disaster: A qualitative study of Norwegian families surviving the 2004 tsunami in Southeast Asia. *Journal of Child and Family Studies* 21: 293–302. [CrossRef]

Hamilton, Jessica L., Samantha L. Connolly, Richard T. Liu, Jonathan P. Stange, Lyn Y. Abramson, and Lauren B. Alloy. 2015. It gets better: Future orientation buffers the development of hopelessness and depressive symptoms following emotional victimization during early adolescence. *Journal of Abnormal Child Psychology* 43: 465–74. [CrossRef] [PubMed]

Harter, Susan. 1982. The perceived competence scale for children. *Child Development* 53: 87–97. [CrossRef]

Hawryluck, Laura, Wayne L. Gold, Susan Robinson, Stephen Pogorski, Sandro Galea, and Rima Styra. 2004. SARS control and psychological effects of quarantine, Toronto, Canada. *Emerging Infectious Diseases* 10: 1206. [CrossRef]

Hendricks, Charlene, and Marc H. Bornstein. 2007. Ecological analysis of early adolescents' stress responses to 9/11 in the Washington, DC, area. *Applied Development Science* 11: 71–88. [CrossRef]

Holman, E. Alison, and Roxane Cohen Silver. 2005. Future-oriented thinking and adjustment in a nationwide longitudinal study following the September 11th terrorist attacks. *Motivation and Emotion* 29: 385–406. [CrossRef]

Islam, Md Saiful, Rafia Tasnim, Md Safaet Hossain Sujan, Most Zannatul Ferdous, Md Tajuddin Sikder, Jakir Hossain Bhuiyan Masud, Sourav Kundu, Promi Tahsin, Abu Syed Md Mosaddek, and Mark D. Griffiths. 2021. Depressive symptoms associated with COVID-19 preventive practice measures, daily activities in home quarantine and suicidal behaviors: Findings from a large-scale online survey in Bangladesh. *BMC Psychiatry* 21: 273. [CrossRef] [PubMed]

Johnson, Sarah R. Lindstrom, Robert W. Blum, and Tina L. Cheng. 2014. Future orientation: A construct with implications for adolescent health and wellbeing. *International Journal of Adolescent Medicine and Health* 26: 459–68. [CrossRef] [PubMed]

Kapetanovic, Sabina, Sevtap Gurdal, Birgitta Ander, and Emma Sorbring. 2021. Reported changes in adolescent psychosocial functioning during the COVID-19 outbreak. *Adolescents* 1: 10–20. [CrossRef]

Kaplan, Carole A., and Julie Owens. 2004. Parental influences on vulnerability and resilience. In *Handbook of Parenting: Theory and Research for Practice*. London: SAGE Publications Ltd., pp. 72–87.

Kecojevic, Aleksandar, Corey H. Basch, Marianne Sullivan, and Nicole K. Davi. 2020. The impact of the COVID-19 epidemic on mental health of undergraduate students in New Jersey, cross-sectional study. *PLoS ONE* 15: e0239696. [CrossRef] [PubMed]

Kelloway, E. Kevin. 2014. *Using Mplus for Structural Equation Modeling: A Researcher's Guide*. Thousand Oaks: Sage Publications.

Kerpelman, Jennifer L., Suna Eryigit, and Carolyn J. Stephens. 2008. African American adolescents' future education orientation: Associations with self-efficacy, ethnic identity, and perceived parental support. *Journal of Youth and Adolescence* 37: 997–1008. [CrossRef]

Kline, Rex B. 2005. *Principles and Practice of Structural Equation Modeling*, 2nd ed. New York: Guilford Press.

Lalot, Fanny, Dominic Abrams, Sanna Ahvenharju, and Matti Minkkinen. 2021. Being future-conscious during a global crisis: The protective effect of heightened Futures Consciousness in the COVID-19 pandemic. *Personality and Individual Differences* 178: 110862. [CrossRef]

Lansford, Jennifer E., Marc H. Bornstein, Kirby Deater-Deckard, Kenneth A. Dodge, Suha M. Al-Hassan, Dario Bacchini, Anna Silvia Bombi, Lei Chang, Bin-Bin Chen, Laura Di Giunta, and et al. 2016. How international research on parenting advances understanding of child development. *Child Development Perspectives* 10: 202–7. [CrossRef] [PubMed]

Lee, Christine M., Jennifer M. Cadigan, and Isaac C. Rhew. 2020. Increases in loneliness among young adults during the COVID-19 pandemic and association with increases in mental health problems. *Journal of Adolescent Health* 67: 714–17. [CrossRef] [PubMed]

Lee, Sun-A., and Jeong Jin Yu. 2017. Parenting, adolescents' future orientation, and adolescents' efficient financial behaviors in young adulthood. *Journal of Social Sciences* 13: 197–207. [CrossRef]

Lopez-Carr, A. 2021. *Covid-19 Cases Rise as Delta Variant Sweeps the Globe*. Santa Barbara: DirectRelief. Available online: https://www.directrelief.org/2021/08/covid-cases-rise-as-delta-variant-sweeps-the-globe/ (accessed on 26 October 2021).

Ma, Xiaole, and Xingchao Wang. 2021. The role of empathy in the mechanism linking parental psychological control to emotional reactivities to COVID-19 pandemic: A pilot study among Chinese emerging adults. *Personality and Individual Differences* 168: 110399. [CrossRef]

MacLeod, Andrew K., and Clare Conway. 2005. Well-being and the anticipation of future positive experiences: The role of income, social networks, and planning ability. *Cognition & Emotion* 19: 357–74. [CrossRef]

Mandara, Jelani, and Crysta L. Pikes. 2008. Guilt trips and love withdrawal: Does mothers' use of psychological control predict depressive symptoms among African American adolescents? *Family Relations* 57: 602–12. [CrossRef]

Manzeske, David P., and Anne Dopkins Stright. 2009. Parenting styles and emotion regulation: The role of behavioral and psychological control during young adulthood. *Journal of Adult Development* 16: 223. [CrossRef]

Masten, Ann S. 2015. *Ordinary Magic: Resilience in Development*. New York: Guilford Publications.

Masten, Ann S. 2021. Resilience of children in disasters: A multisystem perspective. *International Journal of Psychology* 56: 1–11. [CrossRef]

Masten, Ann S., and Frosso Motti-Stefanidi. 2020. Multisystem resilience for children and youth in disaster: Reflections in the context of COVID-19. *Adversity and Resilience Science* 1: 95–106. [CrossRef]

McCann, Allison, Nadja Popovich, and Jin Wu. 2020. Italy's Virus Shutdown Came Too late. What Happens Now? Available online: https://www.nytimes.com/interactive/2020/04/05/world/europe/italy-coronavirus-lockdown-reopen.html (accessed on 26 October 2021).

McElroy, Eoin, Praveetha Patalay, Bettina Moltrecht, Mark Shevlin, Adrienne Shum, Cathy Creswell, and Polly Waite. 2020. Demographic and health factors associated with pandemic anxiety in the context of COVID-19. *British Journal of Health Psychology* 25: 934–44. [CrossRef] [PubMed]

Merrick, Melissa T., Katie A. Ports, Derek C. Ford, Tracie O. Afifi, Elizabeth T. Gershoff, and Andrew Grogan-Kaylor. 2017. Unpacking the impact of adverse childhood experiences on adult mental health. *Child Abuse & Neglect* 69: 10–19. [CrossRef]

Milioni, Michela, Guido Alessandri, Nancy Eisenberg, and Gian Vittorio Caprara. 2016. The role of positivity as predictor of ego-resiliency from adolescence to young adulthood. *Personality and Individual Differences* 101: 306–11. [CrossRef]

Mohiddin, A., M. Temmerman, and R. Adam. 2020. Kenya: What Kenya Needs to Do Better As It Braces for Fourth Wave of COVID-19. Available online: https://allafrica.com/stories/202108020022.html (accessed on 26 October 2021).

Mönks, F. 1968. Future time perspective in adolescents. *Human Development*, 107–23. [CrossRef]

Muthén, L. K., and B. O. Muthén. 2017. *MPlus Version 8 [Computer Software]*. Los Angeles: Muthén & Muthén.

Nurmi, J. E. 1991. How do adolescents see their future? A review of the development of future orientation and planning. *Developmental Review* 11: 1–59. [CrossRef]

Oettingen, Gabriele, Doris Mayer, and Sam Portnow. 2016. Pleasure now, pain later: Positive fantasies about the future predict symptoms of depression. *Psychological Science* 27: 345–53. [CrossRef]

Patterson, Gerald R., and Magda Stouthamer-Loeber. 1984. The correlation of family management practices and delinquency. *Child Development* 55: 1299–307. [CrossRef] [PubMed]

Perrin, Ellen C., Laurel K. Leslie, and Thomas Boat. 2016. Parenting as primary prevention. *JAMA Pediatrics* 170: 637–38. [CrossRef] [PubMed]

Pisano, Simone, Gennaro Catone, Antonella Gritti, Luisa Almerico, Anna Pezzella, Pia Santangelo, Carmela Bravaccio, Raffaella Iuliano, and Vincenzo Paolo Senese. 2021. Emotional symptoms and their related factors in adolescents during the acute phase of Covid-19 outbreak in South Italy. *Italian Journal of Pediatrics* 47: 1–8. [CrossRef] [PubMed]

Prime, Heather, Mark Wade, and Dillon T. Browne. 2020. Risk and resilience in family well-being during the COVID-19 pandemic. *American Psychologist* 75: 631–43. [CrossRef] [PubMed]

Racine, Nicole, Brae Anne McArthur, Jessica E. Cooke, Rachel Eirich, Jenney Zhu, and Sheri Madigan. 2021. Global prevalence of depressive and anxiety symptoms in children and adolescents during COVID-19: A meta-analysis. *JAMA Pediatrics* 175: 1142–50. [CrossRef] [PubMed]

Ravens-Sieberer, Ulrike, Anne Kaman, Christiane Otto, Adekunle Adedeji, Janine Devine, Michael Erhart, Ann-Kathrin Napp, Marcia Becker, Ulrike Blanck-Stellmacher, Constanze Löffler, and et al. 2020. Mental health and quality of life in children and adolescents during the COVID-19 pandemic—Results of the COPSY study. *Deutsches Ärzteblatt International* 117: 828–29. [PubMed]

Regan, Helen. 2021. *Delta Variant Is Ravaging the World but It's Pushing Southeast Asia to Breaking Point*. Hong Kong: CNN. Available online: https://www.cnn.com/2021/08/04/asia/southeast-asia-delta-covid-explainer-intl-hnk/index.html (accessed on 26 October 2021).

Reuters. 2021. Chart of Jordan's COVID-19 Lockdown Implementations. Available online: https://graphics.reuters.com/world-coronavirus-tracker-and-maps/countries-and-territories/jordan/ (accessed on 15 August 2021).

Rodgers, Robert R. 1966. *Cornell Parent Behavior Description—An Interim Report*. Ithaca: Department of Human Development and Family Studies, Cornell University.

Rogers, Kelly N., Christy M. Buchanan, and Megan E. Winchell. 2003. Psychological control during early adolescence: Links to adjustment in differing parent/adolescent dyads. *The Journal of Early Adolescence* 23: 349–83. [CrossRef]

Rosanbalm, Katie, Elizabeth DeKonty, and Sheronda Fleming. 2020. The North Carolina Resilience and Learning Project. In *Alleviating the Educational Impact of Adverse Childhood Experiences*. Charlotte: School-University-Community Collaboration, pp. 1–37.

Rueda, M. 2021. Colombia Loosens COVID Restrictions to Save the Economy as Deaths Soar. The World. Available online: https://www.pri.org/stories/2021-06-25/colombia-loosens-covid-restrictions-save-economy-deaths-soar (accessed on 26 October 2021).

Saddik, Basema, Amal Hussein, Ammar Albanna, Iffat Elbarazi, Arwa Al-Shujairi, Mohamad-Hani Temsah, Fatemeh Saheb Sharif-Askari, Emmanuel Stip, Qutayba Hamid, and Rabih Halwani. 2021. The psychological impact of the COVID-19 pandemic on adults and children in the United Arab Emirates: A nationwide cross-sectional study. *BMC Psychiatry* 21: 224. [CrossRef] [PubMed]

Santucci, Emily. 2020. *What Lies Ahead as Jordan Faces the Fallout of COVID-19*. Washington, DC: Atlantic Council. Available online: https://www.atlanticcouncil.org/blogs/menasource/what-lies-ahead-as-jordan-faces-the-fallout-of-covid-19/ (accessed on 26 October 2021).

Schafer, Joseph L., and John W. Graham. 2002. Missing data: Our view of the state of the art. *Psychological Methods* 7: 147. [CrossRef] [PubMed]

Seginer, Rachel. 1986. Jewish-Arab relations in Israel: A psychology of adolescence perspective. *The Journal of psychology* 120: 557–65. [CrossRef]

Seginer, Rachel. 2009. The effect of parenting on future orientation. In *Future Orientation: Developmental and Ecological Perspectives*. Boston: Springer, pp. 125–47. [CrossRef]

Seginer, Rachel. 2008. Future orientation in times of threat and challenge: How resilient adolescents construct their future. *International Journal of Behavioral Development* 32: 272–82. [CrossRef]

Shaw, Jon A. 2003. Children exposed to war/terrorism. *Clinical Child and Family Psychology Review* 6: 237–46. [CrossRef]

Shing, Elaine Z., Eranda Jayawickreme, and Christian E. Waugh. 2016. Contextual positive coping as a factor contributing to resilience after disasters. *Journal of Clinical Psychology* 72: 1287–306. [CrossRef]

Sholomskas, Diane, and Rosalind Axelrod. 1986. The influence of mother-daughter relationships on women's sense of self and current role choices. *Psychology of Women Quarterly* 10: 171–82. [CrossRef]

Silk, Jennifer S., Amanda S. Morris, Tomoe Kanaya, and Laurence Steinberg. 2003. Psychological control and autonomy granting: Opposite ends of a continuum or distinct constructs? *Journal of Research on Adolescence* 13: 113–28. [CrossRef]

Skinner, Ann T., Jennifer Godwin, Liane Peña Alampay, Jennifer E. Lansford, Dario Bacchini, Marc H. Bornstein, Kirby Deater-Deckard, Laura Di Giunta, Kenneth A. Dodge, Sevtap Gurdal, and et al. 2021. Parent-adolescent relationship quality as a moderator of links between COVID-19 disruption and reported changes in mothers and young adults' adjustment in five countries. *Developmental Psychology* 57: 1648. [CrossRef] [PubMed]

Smetana, Judith G. 2017. Current research on parenting styles, dimensions, and beliefs. *Current Opinion in Psychology* 15: 19–25. [CrossRef] [PubMed]

Smith, Lee, Louis Jacob, Anita Yakkundi, Daragh McDermott, Nicola C. Armstrong, Yvonne Barnett, Guillermo F. López-Sánchez, Suzanne Martin, Laurie Butler, and Mark A. Tully. 2020. Correlates of symptoms of anxiety and depression and mental wellbeing associated with COVID-19: A cross-sectional study of UK-based respondents. *Psychiatry Research* 291: 113138. [CrossRef] [PubMed]

Smokowski, Paul R., Shenyang Guo, Caroline B. R. Evans, Qi Wu, Roderick A. Rose, Martica Bacallao, and Katie L. Cotter. 2017. Risk and protective factors across multiple microsystems associated with internalizing symptoms and aggressive behavior in rural adolescents: Modeling longitudinal trajectories from the Rural Adaptation Project. *American Journal of Orthopsychiatry* 87: 94. [CrossRef] [PubMed]

So, Suzanna, Noni K. Gaylord-Harden, Dexter R. Voisin, and Darrick Scott. 2018. Future orientation as a protective factor for African American adolescents exposed to community violence. *Youth & Society* 50: 734–57. [CrossRef]

Soenens, Bart, and Maarten Vansteenkiste. 2010. A theoretical upgrade of the concept of parental psychological control: Proposing new insights on the basis of self-determination theory. *Developmental Review* 30: 74–99. [CrossRef]

Spencer, Terry, and Kelli Kennedy. 2021. US Averaging 100,000 New COVID-19 Infections a Day. *AP News*. Available online: https://apnews.com/article/health-coronavirus-pandemic-b0811d7287ef240ae619ba1e385e0a63 (accessed on 26 October 2021).

Steinberg, Laurence, Nina SMounts, Susie D. Lamborn, and Sanford M. Dornbusch. 1991. Authoritative parenting and adolescent adjustment across various ecological niches. *Journal of Research on Adolescence* 1: 19–36.

Steinberg, Laurence, Sandra Graham, Lia O'brien, Jennifer Woolard, Elizabeth Cauffman, and Marie Banich. 2009. Age differences in future orientation and delay discounting. *Child Development* 80: 28–44. [CrossRef]

Stoddard, Sarah A., Marc A. Zimmerman, and José A. Bauermeister. 2011. Thinking about the future as a way to succeed in the present: A longitudinal study of future orientation and violent behaviors among African American youth. *American Journal of Community Psychology* 48: 238–46. [CrossRef]

Weeland, Joyce, Loes Keijsers, and Susan Branje. 2021. Introduction to the special issue: Parenting and family dynamics in times of the COVID-19 pandemic. *Developmental Psychology* 57: 1559. [CrossRef] [PubMed]

World Health Organization. 2004. *Promoting Mental Health: Concepts, Emerging Evidence, Practice*. Geneva: World Health Organization.

Zheng, Lei, Sonia Lippke, Yidi Chen, Danyang Li, and Yiqun Gan. 2019. Future orientation buffers depression in daily and specific stress. *PsyChi Journal* 8: 342–52. [CrossRef] [PubMed]

Zimmerman, Mark, Thomas Sheeran, and Diane Young. 2004. The Diagnostic Inventory for Depression: A self-report scale to diagnose DSM–IV major depressive disorder. *Journal of Clinical Psychology* 60: 87–110. [CrossRef] [PubMed]

Zoellner, Tanja, and Andreas Maercker. 2006. Posttraumatic growth in clinical psychology—A critical review and introduction of a two component model. *Clinical Psychology Review* 26: 626–53. [CrossRef] [PubMed]

A 21st Century Take on Racial-Ethnic Socialization: Patterns of Competency and Content among Diverse Parents of Color

N. Keita Christophe, Gabriela Livas Stein, Lisa Kiang, Natasha C. Johnson, Shawn C. T. Jones and Howard C. Stevenson et al.

1. Department of Psychology, Wake Forest University, Winston-Salem, NC 27109, USA; kiangl@wfu.edu
2. Department of Psychology, University of North Carolina at Greensboro, Greensboro, NC 27412, USA; glstein@uncg.edu
3. School of Public Health, University of Michigan-Ann Arbor, Ann Arbor, MI 48109, USA; ncjohns@umich.edu (N.C.J.); rianae@umich.edu (R.E.A.)
4. Department of Psychology, Virginia Commonwealth University, Richmond, VA 23284, USA; scjones4@vcu.edu
5. Graduate School of Education, University of Pennsylvania, Philadelphia, PA 19104, USA; howards@upenn.edu (H.C.S.); nanyiwo@upenn.edu (N.A.)
* Correspondence: christnk@wfu.edu

Abstract: Racial-ethnic socialization is a process where parents pass beliefs and behaviors to their children, including critical reflections on race and racism. Currently, it is not well known across racial/ethnic groups in the U.S how parents' socialization competency (confidence, skills, and stress surrounding the delivery of racial-ethnic socialization) coalesces with the frequency with which they deliver different types of socialization messages (socialization content). The current study utilizes latent profile analysis to examine racial-ethnic socialization content and competency patterns among 203 Black, 194 Latinx, and 188 Asian American parents ($n = 585$, $M_{age} = 44.46$, $SD = 9.14$, 59.70% mothers) with children 10–18 years old ($M_{age} = 14.30$, $SD = 2.49$, 50.3% female). Furthermore, we relate profiles to sociodemographic and relevant factors posited to impact socialization competency and content delivery, namely, discrimination and critical consciousness dimensions (reflection, motivation, action). We observed three parental profiles: Less Prepared Stressed Low Frequency (LPSLF; $n = 285$), Prepared Low Stress Frequent (PLSF; $n = 204$), and Prepared Stressed Frequent (PSF; $n = 96$) socializers. Profile differences emerged on parental and youth sociodemographic factors, lifetime discrimination exposure, and each parental critical consciousness dimension. This study lays a foundation for the combined study of racial-ethnic socialization competence and content in diverse groups, a practice crucial to understanding 21st century parenting.

Keywords: racial-ethnic socialization; critical consciousness; competency; latent profile analysis

1. Introduction

Parental racial-ethnic socialization (RES) refers to the explicit and implicit beliefs and behaviors parents communicate to children to help them better understand the meaning and importance of their racial-ethnic group membership and the nature of racism and discrimination in their society (Hughes et al. 2016a). Researchers have demonstrated that this form of communication is key in helping youth thrive in the face of racial-ethnic discrimination (Hughes et al. 2006; Neblett et al. 2012). RES has also been shown to be a unique strategy to contend with race-related stress for parenting children of color (see Anderson et al. 2018). While RES has always been an important task for parents of color, the need for effective RES has become even more important due to increased racial tensions since the 2016 United States presidential election (Miller and Werner-Winslow 2016), the parallel pandemics of COVID-19 and racism (Anderson et al. 2021), and an increasing recognition of racism as a significant public health crisis (Vestal 2020). RES has been shown

to protect youth against the deleterious outcomes of race-related stress and trauma (Hughes et al. 2016a), making it an important source of resilience in need of further study, particularly in these trying times. Traditional ways of measuring RES have tended to focus on the *content* of messages—more specifically, how frequently different types of RES (e.g., cultural socialization/pride, preparation for bias, etc.; Hughes et al. 2006) were communicated to children[1]. However, research on RES is beginning to evolve, and researchers are starting to explore how parents' perceived RES *competency*, or their perceived confidence, skills, and stress levels surrounding the delivery of frequent RES *content* (Anderson et al. 2020), impacts their and their child's psychosocial and identity-related outcomes.

While research on both RES content (see Umaña-Taylor and Hill 2020 for detailed review) and competency has grown, less is known about how parents' RES competency corresponds with RES content outside of Black families (see Jones et al. 2021). To optimally support parents raising their children in the unique, increasingly racialized context of the early 21st century U.S., it is first necessary to identify what patterns of socialization content and competency parents of color are displaying, as well as illustrate some of the racial factors, such as parental racial discrimination exposure and critical consciousness, that might be associated with these patterns. Thus, the current study employs latent profile analysis to examine constellations of socialization competency and content in a large sample of Black, Latinx, and Asian American parents of adolescents.

1.1. The Generational Progression of Research on Racial-Ethnic Socialization

As the body of research on RES has evolved over the last four decades, the study of RES may be broken into distinct generations, or paradigms of how to study RES and what aspects of it to study; the shift to studying RES competency marks the beginning of the third generation of RES research. More specifically, the first generation of RES research was characterized by observational research trying to define and conceptualize the construct (e.g., Bowman and Caldwell 1985; Peters 1985). Next came the second generation, where scholars attempted to examine the frequency of RES messaging, as well as its predictors and consequences (e.g., Hughes and Johnson 2001; Neblett et al. 2009; Stevenson 1994). Now is the beginning of the third generation, where scholars are beginning to focus on applied practice and interventions to facilitate effective RES (e.g., Anderson et al. 2018; Coard et al. 2007; Stevenson 2002) and focus on parental RES competency (e.g., Anderson et al. 2020; Anderson et al. 2021; Anderson and Stevenson 2019) specifically as an intervention target with downstream benefits for family functioning and resilience in the face of discrimination. In this way, the construct—much like the practice—has developed through multiple generations.

In light of this expansion, and with an understanding of how subsequent generations of research evolve from prior generations (see Driscoll et al. 2008, for example, in the acculturation literature), it is important to note the advancements made in recent years while honoring the contribution of early RES findings. For example, while racial discrimination has been a construct often paired with RES (see Knight et al. 1993; Stevenson 1994 for 20th century examples with Latinx and Black populations, respectively), it is in this 21st century that parenting in the context of a 24 h news cycle, personal streaming devices, and lockdown policies has made conversations about race and racism ubiquitous. Discrimination has also increased rapidly towards various racial and ethnic groups given unique experiences facing certain groups (e.g., excessive force used by police, forced parent–child separation at the U.S. border, being blamed for the spread of COVID-19). Furthermore, in line with an increasing trend of scholars who are examining how an understanding of systemic inequalities (e.g., critical consciousness; Watts et al. 2011) impacts developmental processes in children, parental critical consciousness may also have an important role to play in their provision of RES and, ultimately, their children's reception of this communication. Additionally, 21st century advances in technology have resulted in increased chances to observe examples of structural racial inequalities, which may necessitate subsequent RES from parents (e.g., Thomas and Blackmon 2015). As such, it is of great importance to

understand the patterns of RES content and competency exhibited by parents of color in the 21st century as well as the factors influencing those patterns.

1.2. RES in Families of Color

RES has typically been characterized by its content, and this content has generally fallen into four categories: cultural socialization, preparation for bias, promotion of mistrust, and egalitarian messages (Hughes et al. 2006; Umaña-Taylor and Hill 2020). Cultural socialization—frequently referred to as "pride socialization"—is a category of RES that focuses on supporting racial-ethnic pride by teaching the history, customs, values, and traditions associated with the family's racial or ethnic group. "Preparation for bias messages" refer to a category of messages that warn youth about potential experiences of racial-ethnic discrimination and provide coping strategies to deal with these harmful experiences (Hughes et al. 2006). "Promotion of mistrust" messages warn youth to avoid other racial-ethnic groups due to potential discrimination but, unlike preparation for bias messages, are devoid of advice on ways to cope with discrimination. Finally, "egalitarian messages" emphasize racial-ethnic equality. Unlike the other categories of messages, these can have either a positive or negative valence; some egalitarian messages can focus on celebrating diversity and the gains of cultural pluralism while others can minimize and downplay the role of race in society (Juang et al. 2016).

1.2.1. RES Content Profiles

Person-centered analyses are powerful analytical tools that facilitate the investigation of RES content, as well as its predictors, correlates, and consequences. Person-centered analyses 'uncover' groups of individuals latent within the data that are similar to each other and different from other groups on key variables of interest (von Eye and Bogat 2006), such as patterns of how frequently different types of RES content are communicated to children. Person-centered analyses also allow for the assessment of how relevant factors, such as discrimination, critical consciousness, and sociodemographic variables, relate to profiles. Given their high degree of flexibility, and consideration of the whole person, person-centered approaches have been touted as critical in stimulating strengths-based research in populations of color and in identifying complex patterns of RES content (Neblett et al. 2016). Across past studies of RES content, three to five profiles often emerge, with a large profile providing frequent and varied RES messages (e.g., cultural socialization and preparation for bias, self-worth) and smaller profiles delivering RES messages with lower and more moderate frequencies. In these smaller profiles, parents across studies tend to display a pattern focused primarily on more negative messages and a pattern by which relatively less engaged parents provided significantly fewer overall RES messages (Ayón et al. 2019; Caughy et al. 2011; Cooper et al. 2015b; White-Johnson et al. 2010). Saleem et al.'s (2020) person-centered study provides a notable but rare exception to this trend, with the largest group providing a low frequency of RES messages.

1.2.2. Factors Associated with RES Content

In addition to research increasingly using person-centered approaches illustrating patterns of RES content, a growing body of research on RES content (i.e., research of the 2nd generation) has used variable and person-centered approaches to examine the factors associated with the provision of different types and patterns of RES messaging. This research has primarily focused on how sociodemographic factors and parents' experiences of discrimination have impacted how frequently parents communicate different types of RES messages. For example, higher parental socioeconomic status has been associated with more varied, frequent messages (White-Johnson et al. 2010). The impact of child gender on RES content is unclear, with some Black families showing that boys receive more promotion of mistrust and preparation for bias messages (Caughy et al. 2011), while others finding that boys receive less RES across content areas (Cooper et al. 2015a). Child age may play

a role, as Latinx parents have been shown to provide more RES to older children than younger children (Ayón et al. 2019).

Parental experiences of discrimination are also relevant to their RES practices. For example, RES content profiles characterized by greater number and variability in messages tended to have parents who reported greater racial pride, higher racial centrality, and more racial-ethnic discrimination relative to profiles with parents who delivered fewer RES messages (e.g., Cooper et al. 2015b; White-Johnson et al. 2010). Further, parents who experience more discrimination as their children enter later adolescence change their constellation of messages to increase both cultural socialization and preparation for bias (Saleem et al. 2020). These findings are supported by Priest et al.'s (2014) review of the RES literature, in which four studies of Black parents indicated that past experiences of discrimination influenced the RES parents administered to their children.

1.2.3. The Need to Examine Critical Consciousness in the Context of Parental RES

In addition to their interpersonal experiences of racial discrimination, parents' awareness and response to structural inequality likely also influence their RES practices. This intersection has been understudied in the literature but may be crucial in understanding parents' RES practices. Critical consciousness describes a person's understanding of societal inequalities (critical reflection), motivation to combat these inequalities (political efficacy), and actual action aimed at dismantling inequality (critical action; Diemer et al. 2020). Recent theoretical work suggests that parents' structural analysis of racial inequity and efficacy may serve as a foundation for parental practices that protect their children from the adverse effects of racial bias (Marchand et al. 2019). Yet, for the most part, research on RES and critical consciousness has focused on elucidating the role of RES content in cultivating youth's critical consciousness, underscoring the interlocking processes of RES content delivery and critical consciousness (Anyiwo et al. 2018; Anyiwo et al. Forthcoming; Bañales et al. 2020). Despite this promising work, limited research has considered the relation between parents' understanding of and resisting inequality and the delivery of RES messages. Qualitative studies on RES practices have found that parents use their understanding of the systemic nature of racial inequalities in the legal system and within society (e.g., critical reflection) to explain to their children the unjust deaths of unarmed Black boys at the hands of police officers (Thomas and Blackmon 2015; Threlfall 2018). This suggests that parents with a greater understanding of social inequalities are using that understanding to inform the delivery of RES messages that help youth recognize stressors as racialized, whether they are systemic (i.e., requiring critical reflection) or interpersonal; in this context, these parents' RES is likely geared towards helping their children to effectively cope with future discriminatory events (Anderson and Stevenson 2019). Furthermore, parents may draw on their activism in racial justice movements to inform RES practice, equipping their youth with models of how to counter racism (Watts 2018). While the associations between parental critical consciousness and RES content have not been explored quantitatively, this previously cited qualitative and theoretical work suggests that parental understanding of societal inequalities, motivation to correct inequalities, and activism to dismantle unequal systems may be related to RES message frequency. Ultimately, far more work is needed to understand how parents' critical consciousness dimensions have differential influences on parents' RES practices. Despite their utility, all the aforementioned studies have focused exclusively on identifying predictors and correlates of RES content. As such, not only is there little known about parents' RES competency, even less is known about the intersection between content with competency and whether predictors of RES content also play a role in parents' RES competency.

1.3. The Evolution of RES through a Focus on Competency

Although RES constitutes an important parenting skill for parents of color, less understood is parental RES competence, or parents' stress around RES combined with whether parents feel they have the confidence and skills that make them prepared to deliver RES

messages (Anderson et al. 2020). In the Racial Encounter Coping Appraisal and Socialization Theory (RECAST; Anderson and Stevenson 2019; Stevenson 2014), the authors center parental competency as necessary to facilitate effective parent–child RES conversations that result in youth developing coping self-efficacy and, ultimately, expanded coping skills to deal with discrimination.

1.3.1. What Comprises RES Competency?

RES competency comprises parents' stress levels, perceived skills, and perceived confidence surrounding the communication of RES content (Anderson et al. 2020). RES conversations can be stressful for parents due to their own experiences of discrimination, emotional arousal, and difficulty in discussing these topics in developmentally appropriate ways (Anderson et al. 2018; Coard et al. 2004; Stein et al. 2021). This stress may impede parents' ability to frequently deliver an array of RES messages—especially those focused on preparation for bias and coping with discrimination (Anderson and Stevenson 2019; Ayón 2016). Beyond stress, RES competency also requires a preparedness to deliver RES messages—potentially in spite of the stress these messages incite in parents. We conceptualize preparedness as a sub-dimension of competency that includes parents' perceived *confidence* and *skills*. Even if parents can frequently communicate RES content to their children in an effective way, true RES competence would involve a high level of confidence and skills (i.e., high preparedness to do RES) combined with lower levels of stress—again, as stress may impair one's confidence and the skill with which one delivers RES content.

1.3.2. Why Does RES Competency Matter?

In addition to RES content, or the frequency with which parents communicate different types of RES messages, RES competency is important to study because of its potential associations with important youth outcomes. The body of work on RES competency is small but quickly growing. For instance, Anderson et al. (2021) found that in a variable-centered study that higher levels of RES competence, as measured by greater confidence and skills and lower stress, mitigated the harmful link between parental discrimination, parental racial worries, and child psychosocial outcomes in Black families. Stated differently, parents who faced discrimination experienced more worries about them and their children experiencing discrimination, and these parental worries were associated with worse mental health in their children; however, this relation between parental worries and youth's functioning was weaker for those high in RES competency (Anderson et al. 2021). Parental RES competency, therefore, may be important not only in its relations to the communication of RES content, but it may also have the ability to disrupt intergenerational pathways by which parents' discrimination experiences and worries about racial issues are associated with mental health symptomatology in their children. This is consistent with the RECAST model (Anderson and Stevenson 2019), which asserts that RES content communicated after a stressful racial encounter has the potential to mitigate the negative impacts of this encounter on youth outcomes *if* parents have adequate levels of RES competency (high confidence, high skills, moderate to low stress) in socializing their children in response to this negative encounter. Exposure to numerous examples of racial-ethnic inequality is ever-present in 21st century U.S. society. Therefore, a greater understanding now of RES competency and RES content may ultimately help us intervene to disrupt some of the negative cascading and intergenerational impacts of discrimination.

1.3.3. A Person-Centered Approach to RES Competency

Only one study thus far has applied person-centered analyses—which again have the potential to advance our understanding of RES competency and RES content and advance equity, social justice, and research on populations of color (Neblett et al. 2016)—in the context of RES content and competency. In this sole, highly informative study, Jones et al. (2021) used a person-centered approach to determine the patterns of RES content and competence in a sample of Black caregivers and what parental factors were

associated with these patterns. Three profiles were identified: competent parents who provided frequent and multifaceted RES messages (*Multifaceted* and *More Competent*), moderately competent parents who were less engaged in RES content delivery (*Unengaged* and *Moderately Competent*), and stressed parents who delivered negative RES content messages (NLCS; *Less Competent* and *Stressed*). Multifaceted and More Competent parents were more likely to be older and have older children relative to Less Competent and Stressed parents, likely building competence with delivery of RES messages with time. Their Black identity was also seen more positively and as more central to their overall identity relative to Less Competent and Stressed parents. In terms of discrimination, Unengaged and Moderately Competent parents reported less racial discrimination relative to Less Competent and Stressed parents, suggesting that fewer discriminatory experiences may surprisingly be an impetus for the delivery of more negative RES messages that disparage one's own group. These studies highlight that whether parents feel confident or stressed about delivering RES messages, this competence links to the types of RES messages they deliver. These patterns are also informed by demographic and racial processes, including parents' own racial identity and experiences of discrimination. This work, moreover, may be helpful in understanding RES content and competency in other populations of color in the United States (e.g., Asian American and Latinx).

1.3.4. The Need to Study RES Content and Competency across Diverse Populations

Asian American and Latinx parents must also contend with how to support their children in navigating the racial landscape of the United States, yet little work has examined RES content in these populations, with even less work examining preparation for bias or egalitarian messages (Priest et al. 2014; see Juang et al. 2017 for a review of RES in Asian families and Ayón et al. 2020 for a review in Latinx families). Further, RES competency in Asian American and Latinx parents has yet to be explored. A set of studies by Kiang et al. (2017, 2021) with Asian American and Latinx parents has examined a construct akin to RES confidence, which they term cultural parenting self-efficacy, defined as the belief that parents can teach their children the knowledge and values associated with their group as well as instill cultural pride. Consistent with Anderson et al.'s (2020) study with Black parents, cultural parenting self-efficacy was linked to general parenting self-efficacy for Latinx parents and greater parental involvement for both Asian American and Latinx parents (Kiang et al. 2017; Kiang et al. 2021). In contrast to the results by Jones et al. (2021), some aspects of cultural parenting self-efficacy were lower for Latinx parents with older children, especially efficacy around delivering messages about maintaining bicultural ties.

Taken together, it is clear that parental competence in delivering RES messages is evident across communities of color in the U.S. and is associated with other aspects of parenting as well. Yet, less is known about how RES competence, RES content, and sociodemographic factors are related across racial and ethnic groups. Understanding patterns of RES content and competency will be critical in the continued evolution of research on RES, particularly because RES competency is a phenomenon that is relevant and may operate more fairly across families of all groups (see Jones et al. 2021). Further, as the third wave of RES researchers work to support parents' RES practices and competency through direct intervention with varying racial and ethnic groups (e.g., Anderson et al. 2018; Stein et al. 2021), understanding the correlates of patterns of RES competency and content will be key in calibrating and optimizing interventions to support parental RES competency and content.

2. Current Study

In the current study, we sought a more comprehensive understanding of RES content *and* competency within and across racial-ethnic groups by conducting a latent profile analysis of RES competency and content in Black, Latinx, and Asian American parents. To provide a description of the types of parents in each profile, we examined whether RES competency and content profiles differ based on numerous parent and child sociodemo-

graphic characteristics. Finally, we also examined other factors that have been posited as impacting RES content delivery, such as parental exposure to racial discrimination and three dimensions of critical consciousness: understanding of social inequality (reflection), motivation to correct social inequities (motivation), and behaviors directed at dismantling unequal social systems (action). The impact of many of these factors on RES competency has not yet been thoroughly examined.

We hypothesized that we would observe profiles of socialization competency and content similar to Jones et al.'s (2021) study in a sample of Black parents (i.e., a high competence multifaceted profile, a moderately competent profile, and a low competence high stress profile). However, because this constitutes the first study to examine patterns of socialization competency and content in Latinx and Asian American parents, we made no a priori hypotheses regarding differences between profiles on sociodemographic factors, discrimination, and critical consciousness dimensions.

3. Method

3.1. Participants

Participants were 585 parents (M_{age} = 44.46, *SD* = 9.14, 59.70% mothers) with children between the ages of 10 and 18 (M_{age} = 14.30, *SD* = 2.49, 50.3% female). In terms of racial-ethnic characteristics, parents were relatively equally distributed between Black (*n* = 203), Asian American (*n* = 194), and Latinx (*n* = 188) groups. A majority of parents were married or cohabitating with a partner (76.7%). The median household income of our sample was between USD 75,000 and 99,000 (the modal family, or 19.5% of our sample, earned between USD 50,000 and 75,000) and the modal level of parental education was a 4-year college degree. A majority (63.4%) of parents were born in the United States. We observed racial-ethnic differences in household income, where Asian American families earned more than Latinx families (*p* < 0.001), who then in turn earned more than Black families (*p* = 0.002). Black and Latinx families did not differ in parental education but did each report less education than Asian American parents (*p* < 0.001). Foreign-born parents, on average, earned more and had achieved higher education than U.S.-born parents (*p* < 0.001).

3.2. Procedure

Participants for the current study were recruited directly through Qualtrics Research Panels for a larger study on parental racial and ethnic socialization practices during the COVID-19 pandemic. To be eligible, parents had to self-identify as Black, Latinx, Asian American, or White and have a child between the ages of 10 and 18. Parents were still eligible for the study if they had additional children within or outside of our target age range; however, parents completed survey questions in reference to their oldest child between ages 10 and 18. This child was subsequently described as the 'reference child'. After being recruited into the study, parents provided informed consent and proceeded to complete an online Qualtrics survey assessing dimensions of RES competency. All study procedures were approved by the Institutional Review Board. Due to the unique aspects of RES in multiracial families who have parents of different racial groups (see Atkin and Yoo 2019), and White families (see Umaña-Taylor and Hill 2020) who hold privilege over people of color, these families were excluded from analysis for this study. This study was not pre-registered and data and syntax for this study are not publicly available.

3.3. Measures
3.3.1. Profile Indicators
RES Competency

Socialization competency was assessed using a version of the Racial Socialization Competency Scale (Anderson et al. 2020) adapted and validated for use across racial-ethnic groups (Jones et al. 2021). This measure assesses four domains: racial socialization confidence (29 items), skills (29 items), general stress (22 items), and call-to-action stress (7 items). Participants were presented with sample items such as 'share my emotions about

my experiences of negative racial encounters' and 'teach my child to share their feelings about the history of racism and slavery' and indicate their belief in their ability to deliver this message (confidence), how prepared they are to deliver this message (skill), and how stressed they would be delivering this message (stress). Greater detail on the measurement creation, validation, and invariance testing process can be found in Jones et al. (2021).

To summarize one notable adaptation from Anderson et al.'s (2020) scale to facilitate its use across racial/ethnic groups, the 5-point Likert scale used across all subscales was changed to a 4-point Likert scale for RES confidence and RES skills. This change was made because certain racial/ethnic groups did not use response options 1 and 2 when responding to RES confidence and skills items; to facilitate measurement validation and invariance testing (see Jones et al. 2021), response options 1 ('not at all' for confidence and 'very unprepared' for skills) and 2 ('unlikely' for confidence and 'unprepared' for skills) were recoded and combined. This resulted in a four-point RES confidence subscale with confidence response options: 'not at all/unlikely' (1), 'maybe/maybe not' (2), 'I think I can' (3), and 'absolutely' (4). The four response options for RES skills were: 'very unprepared/unprepared' (1), 'in the middle' (2), 'prepared' (3), and 'very prepared' (4).

For the stress subscales, collapsing response categories was not necessary (see Jones et al. 2021), resulting in the same five-point Likert scale outlined in Anderson et al. (2020) with response options: 'very unstressed' (1), 'unstressed' (2), 'in the middle' (3), 'stressed' (4), and 'very stressed' (5). Greater values indicated greater perceived confidence, skills, general stress, and call to action stress. In our sample, reliabilities were 0.97 for confidence, 0.98 for skills, 0.97 for general stress, and 0.93 for call-to-action stress.

RES Content Frequency

He frequency with which parents delivered different types of RES messages was assessed using subscales from Hughes (2003) parental socialization measure, and well as Juang et al.'s (2016) Asian American Parental Racial-Ethnic Socialization Scale. The Hughes measure was used to assess the frequency of: pride socialization (5 items; e.g., 'encouraged your child to read books concerning the history or traditions of your ethnicity/race'), preparation for bias (6 items; 'told your child that people might try to limit him or her because of their ethnicity/race'), and promotion of mistrust (2 items; 'Done or said things to keep your child from trusting students from other ethnic/racial groups'). Additionally, key items from Juang et al.'s (2016) measure were used to assess: cultural pluralism (4 items; 'encouraged your child to have friends from other racial/ethnic backgrounds'), promotion of equality (3 items; 'showed your child that all people are equal regardless of race or ethnicity'), and minimization of race (3 items; 'told your child that racism doesn't exist').

For pride, preparation for bias, and promotion of mistrust, parents indicated the frequency with which they delivered each message on a five-point Likert scale from 'never' (1) to 'six or more times' (5), while, for the cultural pluralism, promotion of equality, and minimization of race subscales, frequency was assessed on a five-point Likert scale from 'never' (1) to 'very often' (5). In our sample, reliabilities were 0.88 for pride socialization, 0.87 for preparation for bias socialization, 0.89 for cultural pluralism, 0.84 for promotion of equality, 0.75 for promotion of mistrust, and 0.88 for minimization of race socialization.

3.3.2. Variables Tested for Profile Differences
Parent and Youth Sociodemographics

Parental income, education, age, biological sex, immigrant status, and race (dummy codes for Latinx and Asian parents with Black parents as the reference group), as well as child age and biological sex, were used as correlates of profile membership.

Parental Critical Consciousness Dimensions

Critical reflection (4 items), motivation (4 items), and action (5 items) were assessed using the Short Critical Consciousness Scale (Diemer et al. 2020). Participants indicated their agreement with reflection (e.g., 'certain racial or ethnic groups have fewer chances to

get ahead') and motivation items (e.g., 'it is my responsibility to get involved and make things better for society') on a six-point Likert scale from 'strongly disagree' (1) to 'strongly agree' (6). For critical action items, participants indicated how frequently they participated in various activities (e.g., 'participated in a civil rights group or organization') over the past year on a five-point Likert scale ranging from 'never did this' (1) to 'at least once a week' (5). Cronbach's alphas in the measurement validation sample, a diverse sample of adolescents, were 0.93, 0.80, and 0.82 for reflection, motivation, and action, respectively (Diemer et al. 2020). In our sample of Black, Latinx, and Asian American parents, reliabilities were 0.89, 0.84, and 0.95, respectively.

Parental Lifetime Discrimination

Parental lifetime discrimination was assessed using a single item from the Racism Life Experiences Scale (Harrell et al. 1997). When asked "Overall, during your lifetime, how much have you personally experienced racism, racial discrimination, or racial prejudice?" participants responded, 'not at all' (1), 'a little' (2), 'some' (3), 'a lot' (4), or 'extremely' (5). This is one of the most common measures used to assess racial discrimination (Priest et al. 2013).

4. Results

4.1. Analytic Plan

All analyses were conducted in Mplus version 8.6. After examining means and correlations among key study variables, we used our measures of RES competency and content as indicators in latent profile analyses using a maximum likelihood estimator robust to non-normality. All profile indicators were standardized prior to evaluating competing models and plotting the final model. All missing data were handled using Full Information Maximum Likelihood and the maximum amount of missing data that we observed was 4 missing observations for promotion of equality out of 585 observations.

In conducting latent profile analyses, we compared the fit indices of models specifying between two and five profiles, relying on a combination of the Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), sample-size-adjusted BIC, and two versions of the Lo–Mendel–Rubin likelihood ratio test (LRT). While lower AIC, BIC, and sample-size-adjusted BIC generally indicate better fit, it is recommended to retain the profile solution where the decreases in these indices begin to taper as the number of profiles increases (Muthén 2013). A statistically significant LRT value indicates that the current profile solution fits the data significantly better than a solution with one fewer profile. Although it is not a fit statistic (Muthén 2008) and, as recommended, was not a major factor in determining the optimal profile solution (Muthén 2017), we report model entropy, an indicator of how accurately participants were classified in their respective profiles. Entropy values above 0.80 are considered 'good' (Muthén 2008).

After deciding on the final profile solution and describing the socialization competency and content of parents in these profiles, we used the BCH procedure (Bakk and Vermunt 2016), the gold standard procedure for examining profile differences (Asparouhov and Muthen 2020), to examine whether parents in various profiles differ from parents in other profiles based on a multitude of parental demographics (income, education, age, biological sex, immigrant status, race) and child factors (age and biological sex). This allowed us to gain a much richer understanding of the types of parents in each profile and the characteristics of their children to whom they deliver socialization messages. Finally, we used the BCH procedure to examine whether parents in various profiles differed from those in other profiles with respect to variables proposed to affect RES: critical consciousness (reflection, motivation, and action) and lifetime exposure to racial discrimination.

4.2. Initial Descriptive Statistics

Means and correlations between all study variables may be seen in Table S1 in the Supplemental Materials. Socialization confidence (*M* = 3.16, *SD* = 0.69) and skills (*M* = 2.80, *SD* = 0.69) were generally negatively related to both forms of socialization-related stress

and positively related to socialization content ($r = -0.07$–0.36). Confidence and skills were not, however, related to promotion of mistrust messages, and skills were negatively associated with minimization of race ($r = -0.13$, $p = 0.002$). While older parents engaged in less minimization of race ($r = -0.19$, $p < 0.001$) and felt less general and call to action stress ($r = -0.10$, $p = 0.016$), parental and child age was largely unrelated to socialization competency and content.

4.3. Identifying Profiles

Based on the previously identified model fit criteria, a three-profile solution was determined to provide the best fit to the data (see Table 1). While the LRT value for the three-profile solution falls just under the cutoff for statistical significance (*LRT* = 479.19, $p = 0.049$), the decreases in AIC, BIC, and sample-size-adjusted BIC provided converging evidence for a three-profile solution.

Table 1. Model fit indices for competing latent profile models (*n* = 585).

Profiles	AIC	BIC	Sample Size Adjusted BIC	LRT (*p*)	Entropy
2	15,632.59	15,768.11	15,669.69	963.33 (<0.001)	0.87
3	**15,168.56**	**15,352.17**	**15,218.83**	**479.19 (0.049)**	**0.88**
4	14,837.01	15,068.70	14,900.45	348.58 (0.091)	0.88
5	14,626.60	14,906.38	14,703.20	229.14 (0.427)	0.86

Note. Final profile solution is in **bold**. AIC = Akaike Information Criterion. BIC = Bayesian Information Criterion. LRT = Lo-Mendel Rubin Likelihood Ratio Test.

Parents in the largest profile were termed *Less Prepared Stressed Low Frequency* (LPSLF) socializers. The 285 (48.72% of sample) parents in the LPSLF profiles were characterized by low confidence and skills but above average levels of socialization-related stress. In terms of socialization content, LPSLF parents gave all forms of RES with below average frequency except for promotion of mistrust messages, which were near the sample mean, and minimization of race messages, which were slightly above the sample mean.

Parents in the second largest profile were termed *Prepared Low Stress Frequent* (PLSF) socializers. The 204 parents (34.87% of the sample) in the PLSF profile were characterized by high socialization-related confidence and skills and the lowest levels of stress in the entire sample (see Figure 1). In terms of socialization content, these parents gave average to above average levels of positive messages (i.e., pride, pluralism, and equality) and preparation for bias messages, but relatively uncommon mistrust and race minimization messages.

Parents in the smallest profile were termed *Prepared Stressed Frequent* (PSF) socializers. The 96 parents (16.41% of the sample) in the PSF profile were characterized by above average confidence and skills but the highest levels of general and call to action socialization-related stress. PSF parents administered the most frequent RES of all parents, regardless of the content of the socialization message types. PSF parents were, thus, highest in positive messages and negative messages such as promotion of mistrust and minimizing the importance of race. Unstandardized values by profile may be seen in Table S2.

4.4. Mean-Level Profile Differences

After identifying and characterizing the socialization competency and content of parents in each of our three profiles, we explored whether profiles differed with respect to a multitude of parent and child sociodemographic factors.
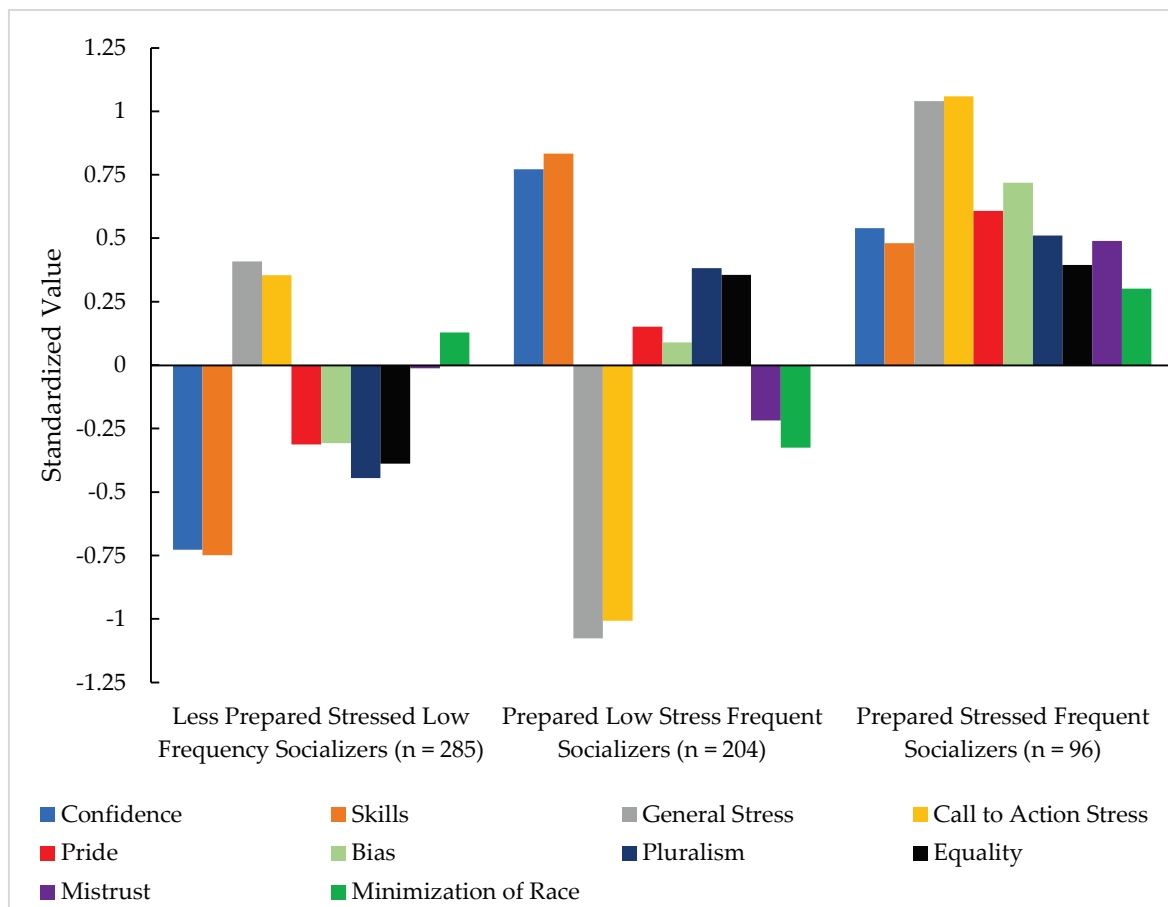
Figure 1. Standardized socialization competency and content profiles (*n* = 585).

4.4.1. Parent and Youth Sociodemographics

An examination of profile differences based on characteristics of the parent revealed no differences with respect to income, education level, or biological sex (see Table 2). Parents in the PLSF profile were older than those in both the LPSLF (χ^2 = 5.30, *p* = 0.021, Δ = 2.15 years) and PSF profiles (χ^2 = 7.90, *p* = 0.005, Δ = 3.48 years). The LPSLF profile had the greatest proportion of immigrant parents (45.6%) compared to the other two profiles, meaning that immigrant parents tended to display a pattern of socialization competency and content characterized by high stress surrounding RES and less frequent messages, save for mistrust messages and minimizing race messages. In terms of race, Latinx and Black parents were equally represented across socialization profiles. Asian parents, however, were overrepresented in the LPSLF profile (44.1% of the profile consisted of Asian parents) compared to other profiles. Examining profile differences based on child characteristics, parents in the PLSF profile had a slightly older reference child than LPSLF parents (χ^2 = 4.06, *p* = 0.044, Δ = 0.54 years). Additionally, LPSLF parents had a higher proportion of male reference children (53.9%) than PLSF parents (42.7%; χ^2 = 5.31, *p* = 0.021). Further probing of the intersection between race and immigrant status revealed that the LPSLF group had a higher proportion of Asian American immigrants (29.1%) than PLSF (13.8%; χ^2 = 15.55, *p* < 0.001) and PSF groups (14.4%; χ^2 = 7.86, *p* = 0.005). No differences between profiles were observed with respect to the proportion of Latinx immigrant parents in different profiles.

Table 2. Mean-level profile differences.

Parental Variables	LPSLF n = 285	PLSF n = 204	PSF n = 96	Differences	χ^2 (p)
	M (S.E.)	M (S.E.)	M (S.E.)		
Income	4.139 (0.147)	3.965 (0.166)	4.034 (0.276)	None	-
Education	4.528 (0.101)	4.481 (0.108)	4.359 (0.174)	None	-
Age	43.94 (0.52)	46.09 (0.75)	42.61 (0.96)	PLSF > LPSLF PLSF > PSF	5.30 (0.021) 7.90 (0.005)
Male	41.9% (0.031)	40.2% (0.036)	35.9% (0.055)	None	-
U.S. Born	54.4% (0.031)	74.2% (0.032)	67.7% (0.054)	PLSF > LPSLF LPSLF < PSF	18.742 (<0.001) 4.228 (0.040)
Latinx	29.6% (0.029)	34.5% (0.035)	34.8% (0.054)	None	-
Asian	44.1% (0.031)	22.4% (0.031)	23.3% (0.049)	PLSF < LPSLF LPSLF > PSF	23.179 (<0.001) 11.737 (0.001)
Critical Reflection	4.003 (0.070)	4.179 (0.102)	4.643 (0.150)	PLSF < PSF LPSLF < PSF	6.346 (0.012) 13.869 (<0.001)
Critical Motivation	4.294 (0.061)	5.146 (0.072)	5.327 (0.102)	PLSF > LPSLF LPSLF < PSF	78.742 (<0.001) 69.736 (<0.001)
Critical Action	1.868 (0.068)	1.666 (0.074)	2.342 (0.165)	PLSF < LPSLF PLSF < PSF LPSLF < PSF	3.834 (0.050) 13.658 (<0.001) 6.595 (0.010)
Lifetime Discrimination	2.453 (0.064)	2.447 (0.075)	3.096 (0.134)	PLSF < PSF LPSLF < PSF	17.289 (<0.001) 17.375 (<0.001)
Youth Variables					
Age	14.04 (0.16)	14.52 (0.18)	14.59 (0.28)	PLSF > LPSLF	4.06 (0.044)
Male	53.9% (0.031)	42.7% (0.036)	52.1% (0.057)	PLSF < LPSLF	5.314 (0.021)

Note: LPSLF = Less Prepared Stressed Low Frequency. PLSF = Prepared Low Stress Frequent. PSF = Prepared Stressed Frequent.

4.4.2. Parent Critical Consciousness and Discrimination

Finally, we examined how other critical consciousness and racial-ethnic discrimination differed based on socialization competency and content profiles. Relative to other profiles, PSF parents endorsed the highest levels of critical reflection, or understanding of structural inequalities (see Table 2). Relative to other profiles, LPSLF parents endorsed the lowest motivation to correct social inequalities. Finally, we found that PSF parents reported engaging in the most critical action, followed by PLSF parents and then LPSLF parents. With respect to lifetime discrimination exposure, PSF parents also reported the greatest amount of exposure to racial discrimination over their lifetimes compared to parents from the PLSF (χ^2 = 17.29 *p* < 0.001) and LPSLF profiles (χ^2 = 17.38, *p* < 0.001).

5. Discussion

In this challenging time, 21st century parents of color face complex and evolving challenges revolving around issues of race and racism including the dual COVID-19 and racism pandemics, the changing nature of racism from explicit to implicit (Bonilla-Silva 2021) then arguably back towards explicit, and the technological changes that have made exposure to instances of negative racial encounters on TV and in the media chronic and unavoidable. Given this unique context, it is necessary for the RES literature to mature, working towards a more comprehensive understanding of RES that not only considers the content of messages that parents convey, but also examines parents' RES competence. This study employed latent profile analysis to examine parents of color's patterns of both RES content—or the frequency of the messages parents are delivering to their children about race—and socialization competency, or their perceived confidence, skills, and stress around administering such messages. This study aligns with and extends prior person-centered work focusing on socialization content (e.g., Christophe et al. 2021; Cooper et al. 2015a; Neblett et al. 2009; White-Johnson et al. 2010) that finds evidence for heterogeneity in the constellation of socialization messages that parents administer to youth. Specifically, we found evidence for three groups of socializers of decreasing size. First were LPSLF socializers, who were low in confidence and skills, above the mean in stress, and delivered

a majority of RES content with below average frequency. Second were PLSF socializers, who were highest in confidence and skills, low in stress, and delivered most messages with slightly above average frequency. Third were PSF socializers, who reported high confidence and skills regarding RES, the highest levels of stress, and the most frequent RES content across all RES types.

Although the specific content of RES messages differs slightly across studies, our work aligns with findings from Jones et al. (2021), the sole person-centered examination of competency and content in Black families. These studies both find evidence for profiles differentiated from one another based on differences in socialization content and parents' levels of confidence, skill, and stress around the delivery of RES content. This study, more-over, builds upon the literature by providing the first examination of RES competency and content in Latinx and Asian American parents. Finally, consistent with variable-centered results from Anderson et al. (2020) and profile findings from Jones et al. (2021), we found that parents in different socialization profiles also differ with respect to sociodemographic factors such as parental and child age, race, immigrant status, past racial discrimination experiences, and dimensions of critical consciousness.

5.1. Less Prepared Stressed Low Frequency Socializers

The most prevalent profile, the LPSLF profile, which consisted of parents who reported engaging in RES socialization in ways that were virtually opposite from the PLSF group (i.e., fewer socialization messages that are considered 'adaptive' in combination with moderate to high levels of mistrust and minimization of race). These parents also reported relatively low confidence and skills, but high stress surrounding the communication of RES content. One explanation for this common but surprising pattern of competency and content is that these parents' low perceived confidence and skills prevented them from speaking up about race-ethnicity and having tough conversations about race and racism in the U.S. Another non-mutually exclusive explanation, however, has to do with the demographic differences observed amongst this profile. Almost half of LPSLF parents were born outside of the U.S., report their race as Asian American or Latinx, and reported on sons.

It is plausible that these non-U.S.-born parents, both Asian American and otherwise, have less familiarity with the complex racial history that exists in the U.S.; this may both hinder their competency and lessen the frequency with which they give RES messaging. Further evidence of this claim lies in the observation that LPSLF parents also reported less critical motivation and action, indicating that they felt less of a pressing need to engage with issues of systemic inequality in the U.S. (e.g., race/ethnicity, gender). It is possible that foreign-born parents in the LPSLF profile feel a general lack of efficacy not only with respect to RES, but also in terms of enacting sociopolitical change, which could then translate into less action (Watts et al. 2011). Alternatively, more direct links could be posited whereby their lack of critical motivation and sociopolitical participation hinders their effective communication of race-related messages, or vice versa.

LPSLF parents also engaged in an above average amount of minimizing the impor-tance or race and ethnicity. This minimization of race may serve various functions. For instance, these predominately Asian (44.1%) and Latinx (29.6%) immigrant parents may be minimizing the importance of race to their children as an attempt to get them to internalize an American identity and associated beliefs that hard work results in success and structural barriers do not exist. This preference towards minimization of race may also be linked to this group of parents' relatively low level of cultural—or pride—socialization. In a person-centered study of immigrant-origin Latinx moms, Christophe et al. (2020) observed that 'assimilated' mothers who had weak ethnic identities, but strong American identities, engaged in less pride socialization of their children. Although these patterns of socialization may not match what is typically regarded as 'adaptive' (see Umaña-Taylor and Hill 2020), it is important to acknowledge that all parents engage in RES with the intention of protecting their children, regardless of the specific content of the RES messaging. We present these results to highlight the patterns of competency and content displayed by largely Asian

American and immigrant parents, not to place a value judgement on or pathologize their RES practices.

Additionally, the LPSLF group, which consisted of mostly Asian and Latinx parents, may have experienced different forms of discrimination than Black parents in the sample, who tended to belong to the other profiles. For instance, Asian and Latinx parents relative to Black parents are more likely to experience foreigner objectification (Armenta et al. 2013), such as being told to 'go back where you came from' and be subjected to the perpetual foreigner stereotype, where Asian Americans (and Latinxs) are considered forever foreign and, thus, never 'truly American' (Lee et al. 2009). Finally, the increased anti-Asian racism resulting from the COVID-19 pandemic (Cheng et al. 2021) also likely played a role in Asian participants' reports of discrimination. All these forms of discrimination have unique meaning among members of these groups and may, realistically, impact parents' RES competency—including their stress surrounding RES—and the content of their RES. For instance, unsuccessful attempts by parents to combat and cope with foreigner objectification and the perpetual foreigner stereotype may erode one's confidence in their ability to teach one's children to expect and cope with discrimination (i.e., preparation for bias socialization). Parents may choose to minimize the importance of race in these situations as a way of not having to communicate their own painful discrimination experiences to their kids. Finally, if foreigner objectification and these stereotypes are internalized, they may lead to a sense of internalized racism that impedes one's confidence and perceived skills in administering RES content, particularly pride messages, to their children.

5.2. Prepared Low Stress Frequent Socializers

The second most common profile, the PLSF profile, was characterized by parents who tended to frequently transmit RES messages that have been shown as 'adaptive' in prior work (e.g., pride socialization, preparation for bias, pluralism, equality; Umaña-Taylor and Hill 2020) while placing less emphasis on more 'negative' forms of RES such as promotion of mistrust and minimization of race. Parents in the PLSF profile also reported relatively high confidence and skills in delivering RES messages as well as relatively low stress. These parents might be seen as conveying realistic messages about race, ethnicity, and discrimination, while also providing ways for their children to effectively cope with experiences of racism. In agreement with prior variable-centered work (Anderson et al. 2020), parents in this profile were distinguishable from their counterparts in other profiles in being older in age, suggesting that greater competency could be related to more lived experiences. Children of parents in this profile were also older than the children of LP-SLF parents, indicating that with greater development and racial identity, the provision of accurate and realistic RES messages corresponds with parents' sense of competency. However, this is in contrast with the general parenting literature depicting that general parental self-efficacy decreases as children move from early to middle adolescence (Glatz and Buchanan 2015). While the specific content of RES may change as a function of child age, parents of older children likely have more years of experience delivering RES, which may be associated with increased levels of RES competency. Additionally, our sample spans from early through to late adolescence, limiting our ability to extend Glatz and Buchanan's (2015) findings to parents in our sample with children in late adolescence. Having racially and ethnically specific theories about parenting (e.g., RECAST; Anderson and Stevenson 2019) is crucial to understanding why general phenomena may not replicate with culturally specific stressors such as discrimination and coping strategies such as RES. Children of participants in this profile were also less likely to be sons, which is consistent with prior work showing that RES content communicated to sons and daughters is different and that even emphasis within the same type of message may differ between sons and daughters (Priest et al. 2014). Notably, parents in the PLSF profile also tended to report higher levels of critical action compared to those in the LPSLF profile, which suggests that some degree of confidence in discussing race-related issues might be needed to support critical action to redress social inequities.

5.3. Prepared Stressed Frequent Socializers

A third and smallest profile, the PSF profile, included parents who were most distinct from the other groups due to their high levels of stress in engaging in RES. In contrast to parents in the LPSLF profile, PSF parents indicated feeling confident and skilled in their approach of frequent RES transmission; however, they were highly stressed when doing so. It is possible that high levels of lifetime discrimination, also reported by this group, contribute to these higher levels of stress. Yet, at the same time, these parents appear highly motivated to transmit balanced socialization messages to their children, as they reported high frequencies of messages across the board. PSF parents also reported the highest levels of both critical reflection and critical action, which further suggests that they are deeply steeped in race-related issues. These parents appear to have the greatest investment in wanting to socialize their children and socialize them well but are stressed about the delivery of RES messages because they believe that doing a poor job may lead to their children not being able to effectively navigate unequal social systems and effectively respond to discrimination. This pattern of high engagement in race and racism, reflected through lived experiences of discrimination, awareness of and action against societal inequities, and frequency of RES, is somewhat consistent with prior work documenting ideologies of resistance among younger samples (Rivas-Drake and Mooney 2009). Similarly, these parents may be like those observed in Marchand et al. (2019) whose critical understanding of systemic inequalities helps them explain to their children the factors motivating police killings of unarmed Black boys. An understanding of systemic inequalities and the greater risk that their children are under (e.g., death at the hands of law enforcement) may render the process of RES delivery highly stressful in spite of parents' preparedness (confidence and skills), result in high levels of parental critical action to attempt to redress inequalities and lower the risk their children are exposed to and drive the delivery of many different types of RES in an attempt to best protect their children.

5.4. Limitations and Future Research

Despite its contribution, this study is not without its limitations. Firstly, the cross-sectional design of this study prevented us from examining the development of RES competency and content as well as how these factors change over time. Parents' confidence, skills, and stress around RES may change systematically as parents gain experience delivering messages, but it may also vary based on factors shown to impact socialization content such as the age of the child, parents' and children's racialized experiences, and sociopolitical occurrences (Hughes et al. 2006). Future longitudinal work should examine the predictors, correlates, and outcomes of parents' patterns of RES competency and content, particularly through a cross-lagged analytical approach. Secondly, our study found differences in profile membership with respect to race/ethnicity and immigration status. Since parents of different groups and countries of origin may display different patterns of RES competency and content, future work with large sample sizes and high statistical power may consider examining these patterns and the mechanisms behind these patterns (1) within individual groups or (2) separately by race/ethnicity and immigration status. Creating profiles separately by race/ethnicity or collecting a sample of parents from a single racial/ethnic group may allow for a more nuanced understanding of RES content and competency in each group—for instance, a new and previously unobserved profile could be identified that may not show up when analyzing members of multiple groups together in the same model.

Thirdly, the use of self-report to measure critical consciousness and RES competency is a limitation in that we are measuring parents' beliefs in their preparedness for delivering RES content competently. We did not measure or observe how well or competently parents behaved in their delivery of RES to their children. Elsewhere, this conceptual difference is discussed as ways that RES research reflects legacy versus literacy methodological approaches (Anderson and Stevenson 2019; Stevenson 2014). Despite no observational measurement of RES behavioral competency, this study illuminates the complexity of RES

competency via RECAST Theory, which offers multiple avenues to improve the quality of RES content delivery in future intervention work. Fourth, the present study does not assess the degree to which aspects of parents' ethnic-racial identities impact their patterns of RES competency and content. Ethnic-racial identity, a multidimensional construct broadly referring to the meaning and importance of race/ethnicity in one's sense of self (Umaña-Taylor et al. 2014), has clear linkages to how frequently parents communicate the meaning and importance of race/ethnicity to their children through RES (Hughes et al. 2016a). These links have been documented in variable-centered (see Hughes et al. 2016b for brief review) and person-centered research (e.g., Cooper et al. 2015b; White-Johnson et al. 2010). Future studies should work to examine how different dimensions of parents' ethnic-racial identities (e.g., centrality, private regard, public regard, etc.) relate to their patterns of RES content and competency.

Finally, the current study has focused on patterns of RES content and competency. RES is conceptualized as a factor that may help provide resilience by buffering against the negative effects of racism and discrimination. However, RES and other factors that engender resilience against racism do not explicitly prevent racism from occurring in the first place. As the field continues to dig into the ways RES competency and content are associated with positive outcomes and resilience, future work is also needed on ways to reduce the incidence of racism at the interpersonal, communal, and systemic level. Finally, our results on 21st century parents of color's RES competency and content are inextricably intertwined with the context of the COVID-19 global pandemic. These data were collected in the fall of 2020, a time where schools across the U.S. were largely virtual, parents were spending far greater amounts of time in the home with youth due to safety regulations, and the news was rife with stories of police killings and racial unrest in the leadup to the 2020 U.S. presidential election. While this context was, in many ways, ideal for studying RES patterns and their associations with discrimination and critical consciousness, the extent to which these findings will hold in a post-pandemic U.S. remain to be seen. Future work should continue to examine patterns of RES competency and content—as well as their correlates—during the pandemic and post pandemic to examine the degrees to which patterns are consistent across time and are not due to a cohort effect associated with socializing children of color in the middle of a COVID pandemic and racism endemic (Anderson et al. 2021).

5.5. Implications for Parenting in the 21st Century

Despite its limitations, this study has important implications for our understanding and support of parenting in the 21st century. For instance, this study was the first, to our knowledge, to find associations between parental critical consciousness dimensions and parental RES (content and competency). Understanding (and potentially facilitating) critical consciousness in parents of color has implications for their delivery of RES content and their feelings and cognitions surrounding RES (i.e., competency). The communication of RES content, in turn, has been shown to have implications for youths' critical consciousness and sociopolitical beliefs (Anyiwo et al. 2018; Mathews et al. 2019). Additionally, more discrimination is associated with membership in the PSF profile, which promotes both traditionally positive and negative messages. As such, it is important to understand not only how discrimination impacts the messages provided to youth, but the ways in which we may be able to assist parents in reframing their experiences to be more beneficial for youth well-being (e.g., Anderson et al. 2018).

Across profiles, understanding what patterns of socialization competency and content exist, as well as understanding what types of parents display which types of patterns, are important steps in helping parents feel efficacious in their ability to socialize their children and supporting parents to socialize their children in ways that contribute towards positive adaptation and well-being. Interventions which consider RES practices (e.g., BPSS; Coard et al. 2007; PLAAY: Stevenson 2002) and competency in particular (e.g., EMBRace; Anderson et al. 2018) can work to support parents of varying ethnic and racial groups in

frequently engaging in competent practices that help support child psychosocial growth. For instance, families with LPSLF may particularly benefit from increasing parents' confidence and skills around delivery of RES; this increase in competence may facilitate greater delivery of RES messages, which have been shown to have positive effects on children's psychosocial functioning and development (Umaña-Taylor and Hill 2020). Additionally, PSF parents may benefit from interventions that help them process the frequent racial discrimination experiences they have suffered during their lives and help—if not reduce the stress surrounding the delivery of RES messages—improve their *management* of RES-related stress. Increasing parents' ability to manage RES-related stress and working through one's past discrimination experiences may be helpful in ultimately reducing the frequency of generally less helpful RES messages, such as frequent administration of promotion of mistrust messages. Our person-centered approach suggests that interventions might be most effective if tailored to parents' specific needs or backgrounds. Ultimately, and regardless of parents' profile membership, policies which focus on mental health and child wellness at large may consider how to integrate these findings to promote psychoeducation and programming around discrimination reduction, family-based coping strategies, and balanced delivery of RES messages.

6. Conclusions

Parenting in the 21st century involves navigating myriad novel challenges and challenges that parents have been faced with throughout time. One unique challenge for parents of color is socializing their children around the meaning and importance of race/ethnicity, teaching them the sobering reality that they will face interpersonal and systemic racism, and instilling in them coping skills to effectively manage racism and discrimination. It has become more widely understood that researchers should not only be examining the content of RES messages, but also examining how these messages co-occur with parents' perceived competence around RES. To address this, our study examined patterns of RES competency and content in a sample of Black, Latinx, and Asian parents, finding evidence for three unique profiles. We observed many differences between profiles in sociodemographic factors such as race, age, and nativity status, and observed that parents' lifetime exposure to discrimination has implications for their current pattern of perceived RES competence and socialization content. Finally, one's pattern of competence and content was also concurrently associated with parents' understanding of societal inequities, as well as their motivation and actions aimed at reducing these inequities. This study provides a much-needed snapshot of RES competency and content in the 21st century, detailing what parents are saying, how they feel about what they are saying, and the factors and experiences associated with parents' patterns of RES competency and content.

Notes

[1]   From here on and throughout the paper, when we refer to the content of RES, we are referring to the *frequency* with which parents communicate different types of messages (i.e., messages with different substantive *content*) to their children.

References

Anderson, Riana E., and Howard C. Stevenson. 2019. RECASTing racial stress and trauma: Theorizing the healing potential of racial socialization in African American families. *American Psychologist* 74: 63–75. [CrossRef] [PubMed]

Anderson, Riana E., Monique McKenny, Amari Mitchell, Lydia Koku, and Howard C. Stevenson. 2018. EMBRacing racial stress and trauma: Preliminary feasibility and coping responses of a racial socialization intervention. *Journal of Black Psychology* 44: 25–46. [CrossRef]

Anderson, Riana E., Shawn C. T. Jones, and Howard C. Stevenson. 2020. The initial development and validation of the Racial Socialization Competency Scale: Quality and quantity. *Cultural Diversity and Ethnic Minority Psychology* 26: 426–36. [CrossRef] [PubMed]

Anderson, Riana E., Shawn C. T. Jones, Farzana T. Saleem, Isha Metzger, Nkemk Anyiwo, Kyle S. Nisbeth, and Howard C. Stevenson. 2021. Interrupting the pathway from discrimination to Black adolescents' psychosocial outcomes: The contribution of parental racial worries and racial socialization competency. *Child Development* 92: 2375–94. [CrossRef] [PubMed]

Anyiwo, Nkemka, Josefina Bañales, Stephanie J. Rowley, Daphne C. Watkins, and Katie Richards-Schuster. 2018. Sociocultural influences on the sociopolitical development of African American youth. *Child Development Perspectives* 12: 165–70. [CrossRef]

Anyiwo, Nkemka, Riana E. Anderson, Aixa D. Marchand, Matthew A. Diemer, and Janay M. Garrett. Forthcoming. Raised to Rebel: Examining the Sociopolitical Pathways between Parental Racial Socialization and Black Youth's Racial Justice Action.

Armenta, Brian E., Richard M. Lee, Stephanie T. Pituc, Kyoung-Rae Jung, Irene J. K. Park, José A. Soto, Su Yeong Kim, and Seth J. Schwartz. 2013. Where are you from? A validation of the Foreigner Objectification Scale and the psychological correlates of foreigner objectification among Asian Americans and Latinos. *Cultural Diversity and Ethnic Minority Psychology* 19: 131–42. [CrossRef]

Asparouhov, Tihomir, and Bengt Muthen. 2020. Auxiliary variables in mixture modeling: Using the BCH method in Mplus to estimate a distal outcome model and an arbitrary secondary model. *Mplus Web Notes* 21: 1–49.

Atkin, Annabelle L., and Hyung Chol Yoo. 2019. Familial racial-ethnic socialization of Multiracial American youth: A systematic review of the literature with MultiCrit. *Developmental Review* 53: 100869. [CrossRef]

Ayón, Cecilia. 2016. Talking to Latino children about race, inequality, and discrimination: Raising families in an anti-immigrant political environment. *Journal of the Society for Social Work and Research* 7: 449–77. [CrossRef]

Ayón, Cecilia, Alisia G. Tran, and Tanya Nieri. 2019. Ethnic–racial socialization practices among Latino immigrant families: A latent profile analysis. *Family Relations* 68: 246–59. [CrossRef]

Ayón, Cecilia, Tanya Nieri, and Elizabeth Ruano. 2020. Ethnic-racial socialization among Latinx families: A systematic review of the literature. *Social Service Review* 94: 693–747. [CrossRef]

Bakk, Zsuzsa, and Jeroen K. Vermunt. 2016. Robustness of stepwise latent class modeling with continuous distal outcomes. *Structural Equation Modeling: A Multidisciplinary Journal* 23: 20–31. [CrossRef]

Bañales, Josefina, Aixa D. Marchand, Olivenne D. Skinner, Nkemka Anyiwo, Stephanie J. Rowley, and Beth Kurtz-Costes. 2020. Black adolescents' critical reflection development: Parents' racial socialization and attributions about race achievement gaps. *Journal of Research on Adolescence* 30: 403–17. [CrossRef]

Bonilla-Silva, Eduardo. 2021. *Racism without Racists: Color-Blind Racism and the Persistence of Racial Inequality in America*, 6th ed. Lanham: Rowman and Littlefield Publishers.

Bowman, Phillip, and Cleopatra Caldwell. 1985. Race-related socialization, motivation, and academic achievement: A study of Black youths in three-generation families. *Journal of the American Academy of Child Psychiatry* 24: 134–41. [CrossRef]

Caughy, Margaret O. B., Saundra M. Nettles, and Julie Lima. 2011. Profiles of racial socialization among African American parents: Correlates, context, and outcome. *Journal of Child and Family Studies* 20: 491–502. [CrossRef]

Cheng, Hsiu-Lan, Helen Y. Kim, Jason (Taewon Choi) D. Reynolds, Yuying Tsong, and Y. Joel Wong. 2021. COVID-19 anti-Asian racism: A tripartite model of collective psychosocial resilience. *American Psychologist* 76: 627–42. [CrossRef] [PubMed]

Christophe, N. Keita, Gabriela L. Stein, and The LOVING Study Collaborative. 2021. A person-centered analysis of ethnic–racial socialization patterns and their identity correlates in Multiracial college students. *Cultural Diversity and Ethnic Minority Psychology* 27: 332–42. [CrossRef]

Christophe, N. Keita, Gabriela L. Stein, Lisa Kiang, Andrew J. Supple, and Laura M. Gonzalez. 2020. Latent profiles of American and ethnic–racial identity in Latinx mothers and adolescents: Links to behavioral practices and cultural values. *Journal of Latinx Psychology* 8: 142–60. [CrossRef]

Coard, Stephanie I., S. A. Wallace, Howard C. Stevenson, and Laurie M. Brotman. 2004. Towards culturally relevant preventive interventions: The consideration of racial socialization in parent training with African American families. *Journal of Child and Family Studies* 13: 277–93. [CrossRef]

Coard, Stephanie I., Shani Foy-Watson, Catherine Zimmer, and Amy Wallace. 2007. Considering culturally relevant parenting practices in intervention development and adaptation: A randomized controlled trial of the Black Parenting Strengths and Strategies (BPSS) program. *The Counseling Psychologist* 35: 797–820. [CrossRef]

Cooper, Shauna M., Ciara Smalls-Glover, Enrique W. Neblett, and Kira H. Banks. 2015a. Racial socialization practices among African American fathers: A profile-oriented approach. *Psychology of Men and Masculinity* 16: 11. [CrossRef]

Cooper, Shauna M., Ciara Smalls-Glover, Isha Metzger, and Charity Griffin. 2015b. African American fathers' racial socialization patterns: Associations with racial identity beliefs and discrimination experiences. *Family Relations* 64: 278–90. [CrossRef]

Diemer, Matthew A., Michael B. Frisby, Andres Pinedo, Emanuele Bardelli, Erin Elliot, Elise Harris, Sara McAlister, and Addam M. Voight. 2020. Development of the Short Critical Consciousness Scale (ShoCCS). *Applied Developmental Science* 2020: 1–17. [CrossRef]

Driscoll, Anne K., Stephen T. Russell, and Lisa J. Crockett. 2008. Parenting styles and youth well-being across immigrant generations. *Journal of Family Issues* 29: 185–209. [CrossRef]

Glatz, Terese, and Christy M. Buchanan. 2015. Change and predictors of change in parental self-efficacy from early to middle adolescence. *Developmental Psychology* 51: 1367. [CrossRef]

Harrell, Shelly P., Meridith A. Merchant, and Shirley A. Young. 1997. Psychometric Properties of the Racism and Life Experiences Scales (RaLES). *Unpublished Manuscript*.

Hughes, Diane. 2003. Correlates of African American and Latino parents' messages to children about ethnicity and race: A comparative study of racial socialization. *American Journal of Community Psychology* 31: 15–33. [CrossRef]

Hughes, Diane, and Deborah Johnson. 2001. Correlates in children's experiences of parents' racial socialization behaviors. *Journal of Marriage and Family* 63: 981–95. [CrossRef]

Hughes, Diane, James Rodriguez, Emilie P. Smith, Deborah J. Johnson, Howard C. Stevenson, and Paul Spicer. 2006. Parents' ethnic-racial socialization practices: A review of research and directions for future study. *Developmental Psychology* 42: 747–70. [CrossRef]

Hughes, Diane, Jon A. Watford, and Juan Del Toro. 2016a. A transactional/ecological perspective on ethnic–racial identity, socialization, and discrimination. In *Advances in Child Development and Behavior*. Edited by Stacey S. Horn, Martin D. Ruck and Lynn S. Liben. Atlanta: JAI, vol. 51, pp. 1–41. [CrossRef]

Hughes, Diane, Juan Del Toro, Jason Rarick, and Niobe Way. 2016b. Liberty and justice for all: When and how parents teach egalitarian views to their children. In *Child Psychology: A Handbook of Contemporary Issues*, 3rd ed. Edited by Lawrence Balter and Catherine S. Tamis-Lemonda. Oxfordshire: Taylor and Francis Group, pp. 401–22. Available online: http://ebookcentral.proquest.com/lib/wfu/detail.action?docID=4426398 (accessed on 21 January 2020).

Jones, Shawn C. T., Riana E. Anderson, and Howard C. Stevenson. 2021. Differentiating competency from content: Parental racial socialization profiles and their associated factors. *Family Process* 2021: 1–17. [CrossRef]

Juang, Linda P., Hyung Chol Yoo, and Annabelle Atkin. 2017. A critical race perspective on an empirical review of Asian American parental racial-ethnic socialization. *Asian American Parenting* 1: 11–35.

Juang, Linda P., Y. Shen, Su Yeong Kim, and Yijie Wang. 2016. Development of an Asian American Parental Racial–Ethnic Socialization Scale. *Cultural Diversity and Ethnic Minority Psychology* 22: 417–31. [CrossRef] [PubMed]

Kiang, Lisa, Terese Glatz, and Christy M. Buchanan. 2017. Acculturation conflict, cultural parenting self-efficacy, and perceived parenting competence in Asian American and Latino/a families. *Family Process* 56: 943–61. [CrossRef] [PubMed]

Kiang, Lisa, Terese Glatz, and Christy M. Buchanan. 2021. Developmental correlates of cultural parental self-efficacy among Asian and Latinx Parents. *Journal of Child and Family Studies* 30: 2563–74. [CrossRef]

Knight, George P., Martha E. Bernal, Camille A. Garza, Marya K. Cota, and Katheryn A. Ocampo. 1993. Family socialization and the ethnic identity of Mexican-American children. *Journal of Cross-Cultural Psychology* 24: 99–114. [CrossRef]

Lee, Stavey J., Nga-Wing A. Wong, and A. N. Alvarez. 2009. The model minority and the perpetual foreigner: Stereotypes of Asian Americans. In *Asian American Psychology: Current Perspectives*. Oxfordshire: Routledge/Taylor and Francis Group, pp. 69–84.

Marchand, Aixa D., Rema R. Vassar, Matthew A. Diemer, and Stephanie J. Rowley. 2019. Integrating race, racism, and critical consciousness in Black parents' engagement with schools. *Journal of Family Theory and Review* 11: 367–84. [CrossRef]

Mathews, Channing J., Michael A. Medina, Josefina Bañales, Bernadette J. Pinetta, Aixa D. Marchand, Abunya C. Agi, Stephanie M. Miller, Adam J. Hoffman, Matthew A. Diemer, and Deborah Rivas-Drake. 2019. Mapping the intersections of adolescents' ethnic-racial identity and critical consciousness. *Adolescent Research Review* 5: 363–79. [CrossRef]

Miller, Cassie, and Alexandra Werner-Winslow. 2016. Ten Days After: Harassment and Intimidation in the Aftermath of the Election. *Southern Poverty Law Center*. November 29. Available online: https://www.splcenter.org/20161129/ten-days-after-harassment-and-intimidation-aftermath-election (accessed on 1 January 2020).

Muthén, Bengt O. 2008. Mplus Discussion >> What Is a Good Value of Entropy. November 21. Available online: http://www.statmodel.com/discussion/messages/13/2562.html?1237580237 (accessed on 1 January 2020).

Muthén, Bengt O. 2013. Decreases in AIC and BIC. Personally communication.

Muthén, Bengt O. 2017. Mplus Discussion >> Selecting the Number of Classes. August 22. Available online: http://www.statmodel.com/discussion/messages/13/458.html (accessed on 1 January 2020).

Muthén, Linda K. 2008. Mplus Discussion >> Selecting the Number of Classes. August 18. Available online: http://www.statmodel.com/discussion/messages/13/458.html (accessed on 1 January 2020).

Neblett, Enrique W., Ciara P. Smalls, Kahlil R. Ford, Hòa X. Nguyên, and Robert M. Sellers. 2009. Racial socialization and racial identity: African American parents' messages about race as precursors to identity. *Journal of Youth and Adolescence* 38: 189–203. [CrossRef]

Neblett, Enirque W., Deborah Rivas-Drake, and Adriana J. Umaña-Taylor. 2012. The promise of racial and ethnic protective factors in promoting ethnic minority youth development. *Child Development Perspectives* 6: 295–303. [CrossRef]

Neblett, Enrique W., Effua E. Sosoo, Henry A. Willis, Donte L. Bernard, Jiwoon Bae, and Janelle T. Billingsley. 2016. Racism, racial resilience, and African American youth development: Person-centered analysis as a tool to promote equity and justice. In *Advances in Child Development and Behavior*. Edited by Stacey S. Horn, Martin D. Ruck and Lynn S. Liben. Atlanta: JAI, vol. 51, pp. 43–79. [CrossRef]

Peters, Marie F. 1985. Racial socialization of young Black children. In *Black Children: Social, Educational, and Parental Environments*. Thousand Oaks: Sage Publications, Inc., pp. 159–73.

Priest, Naomi, Jessica Walton, Fiona White, Emma Kowal, Alison Baker, and Yin Paradies. 2014. Understanding the complexities of ethnic-racial socialization processes for both minority and majority groups: A 30-year systematic review. *International Journal of Intercultural Relations* 43: 139–55. [CrossRef]

Priest, Naomi, Yin Paradies, Brigid Trenerry, Mandy Truong, Saffron Karlsen, and Yvonne Kelly. 2013. A systematic review of studies examining the relationship between reported racism and health and wellbeing for children and young people. *Social Science and Medicine* 95: 115–27. [CrossRef]

Rivas-Drake, Deborah, and Margarita Mooney. 2009. Neither colorblind nor oppositional: Perceived minority status and trajectories of academic adjustment among Latinos in elite higher education. *Developmental Psychology* 45: 642–51. [CrossRef] [PubMed]

Saleem, Farzana T., Sharon F. Lambert, Michelle L. Stock, and Frederick X. Gibbons. 2020. Examining changes in African American mothers' racial socialization patterns during adolescence: Racial discrimination as a predictor. *Developmental Psychology* 56: 1610. [CrossRef] [PubMed]

Stein, Gabriela L., Stephanie I. Coard, Lauara M. Gonzalez, Lisa M. Kiang, and Joseph Sircar. 2021. One Talk at A Time: Developing an Ethnic-Racial Socialization Intervention for Black, Latinx, and Asian American Families. *Journal of Social Issues* 77: 1014–36. [CrossRef]

Stevenson, Howard C. 1994. Racial socialization in African American families: The art of balancing intolerance and survival. *The Family Journal* 2: 190–98. [CrossRef]

Stevenson, Howard C. 2002. Wrestling with destiny: The cultural socialization of anger and healing in African American males. *Journal of Psychology and Christianity* 21: 357–64.

Stevenson, Howard C. 2014. *Promoting Racial Literacy in Schools: Differences That Make a Difference*. New York: Teachers College Press.

Thomas, Anita J., and Sha'Kema M. Blackmon. 2015. The influence of the Trayvon Martin shooting on racial socialization practices of African American parents. *Journal of Black Psychology* 41: 75–89. [CrossRef]

Threlfall, Jennifer M. 2018. Parenting in the shadow of Ferguson: Racial socialization practices in context. *Youth and Society* 50: 255–73. [CrossRef]

Umaña-Taylor, Adriana J., and Nancy E. Hill. 2020. Ethnic–racial socialization in the family: A decade's advance on precursors and outcomes. *Journal of Marriage and Family* 82: 244–71. [CrossRef]

Umaña-Taylor, Adriana J., Stephen M. Quintana, Richard M. Lee, William E. Cross, Deborah Rivas-Drake, Seth J. Schwartz, Moin Syed, Tiffany Yip, Elanor Seaton, and Ethnic and Racial Identity in the 21st Century Study Group. 2014. Ethnic and racial identity during adolescence and into young adulthood: An integrated conceptualization. *Child Development* 85: 21–39. [CrossRef]

Vestal, Christine. 2020. Racism is a public health crisis, say cities and counties. *Pew Research Center*, 1. Available online: https://pew.org/2AsZVRC (accessed on 21 January 2020).

von Eye, Alexander, and G. Anne Bogat. 2006. Person-oriented and variable-oriented research: Concepts, results, and development. *Merrill-Palmer Quarterly* 52: 390–420. [CrossRef]

Watts, Janay M. 2018. *The Critical Race Socialization of Black Children*. Order No. 10750855. Publicly Available Content Database. Ann Arbor: ProQuest Dissertations and Theses Global, p. 2072485020.

Watts, Roderick J., Matthew A. Diemer, and Adam M. Voight. 2011. Critical consciousness: Current status and future directions. *New Directions for Child and Adolescent Development* 2011: 43–57. [CrossRef] [PubMed]

White-Johnson, Ronda L., Kahlil R. Ford, and Robert M. Sellers. 2010. Parental racial socialization profiles: Association with demographic factors, racial discrimination, childhood socialization, and racial identity. *Cultural Diversity and Ethnic Minority Psychology* 16: 237–47. [CrossRef] [PubMed]

Article

Mother–Child Relationships in U.S. Latinx Families in Middle Childhood: Opportunities and Challenges in the 21st Century

Kimberly A. Updegraff, Adriana J. Umaña-Taylor, Daye Son and Karina M. Cahill

[1]   School of Social and Family Dynamics, Arizona State University, Tempe, AZ 85287, USA;
      dson9@asu.edu (D.S.); karina.cahill@asu.edu (K.M.C.)
[2]   Harvard Graduate School of Education, Harvard University, Cambridge, MA 02138, USA;
      Adriana_umana-taylor@gse.harvard.edu
[*]   Correspondence: Kimberly.updegraff@asu.edu

Abstract: The 21st century has brought unique opportunities and challenges for parents, and this is particularly true for Latinx families, whose children comprise more than one-fourth of the school-age population in the U.S. today. Taking an ecological and strengths-based approach, the current study examined the role of mothers' cultural assets (familism values, family cohesion) and challenges (economic hardship, ethnic–race-based discrimination) on children's educational adjustment in middle childhood, as well as the indirect role of mother–child warmth and conflict in these associations. The sample included 173 Latinx mothers and their middle childhood offspring (i.e., 5th graders and younger sisters/brothers in the 1st through 4th grade). Mothers participated in home visits and phone interviews and teachers provided ratings of children's educational adjustment (academic and socioemotional competence, aggressive/oppositional behaviors). Findings revealed family cohesion was indirectly linked to children's educational adjustment via mother–child warmth and conflict, particularly for younger siblings. Discussion focuses on the culturally based strengths of Latinx families and highlights potential implications for family-based prevention in middle childhood.

Keywords: culture; Hispanic; Latino/a/x; middle childhood; mothers/mother–child relations

1. Introduction

The 21st century has been characterized by significant growth in ethnic–racial minoritized groups in the U.S. population (Krogstad 2019), with Latinxs representing the largest ethnic–racial minoritized group (Krogstad and Noe-Bustamante 2021) and accounting for more than half of the population growth since the turn of the century (Flores 2017). Further, the significant growth of ethnic–racial minoritized groups alongside more modest growth in the White population means that the U.S. is projected to transition to a 'majority-minority' nation during the 21st century, with half or more of the population identifying as members of ethnic–racial minoritized groups (Colby and Ortman 2015). This transition has already occurred among U.S. children: 50% are from ethnic–racial minoritized backgrounds (Child Trends 2018). In the K-12 school system, 27% of students are Latinx (National Center for Education Statistics 2021), and Latinxs are expected to be one-third of the U.S. workforce by 2060 (Toossi 2016). Thus, research that examines the experiences of Latinx parents, including both the opportunities and challenges they face in raising their children, is critical in shaping prevention programs that are relevant to this substantial segment of U.S. families.

A universally important task for U.S. parents today is supporting their children's educational adjustment (Van Hook and Glick 2020), broadly defined to include academic, socioemotional, and behavioral functioning in the school setting (Magnuson et al. 2016). The benefits of children's successful adjustment in educational settings are well-documented and far reaching: children with higher academic achievement and better socioemotional and behavioral functioning in middle childhood are more likely to complete high school (Magnuson et al. 2016; Rabiner et al. 2016), which has positive implications for postsecondary education and future employment and earnings (National Center for Education

Statistics 2021), as well as for physical and mental health (Lee et al. 2016; Krueger et al. 2019). In Latinx families, parents' values and aspirations can play a significant role in their children's educational success (Fuligni and Fuligni 2007; Stepler 2016). In particular, strong family-oriented values and behaviors in Latinx culture have been identified as potential cultural assets that may engender family supports for children's education and underlie children's effort and motivation to succeed in school (Cahill et al.; Stein et al. 2014).

In addition to culturally informed strengths, however, Latinx parents can also face challenges, some of which are unique to their sociocultural backgrounds and circumstances (Leidy et al. 2010). For instance, the seminal work by Lareau (2011) notes that supporting children educationally requires navigating institutions designed for middle class (primarily White) families, and that this poses greater challenges for families with fewer resources and from ethnic–racial minoritized groups. Latinx children are disproportionately likely to attend economically disadvantaged schools (Hussar et al. 2020) and to live in poverty (Shrider et al. 2021). Among parents who have immigrated to the U.S., additional stressors come from the cultural adaptation process, language barriers, and limited experience with the U.S. educational system (Suarez-Orozco et al. 2010); challenges also emerge from being the target of racism and discrimination (Ayón and Garcia 2019; García Coll and Szalacha 2004). A particularly notable challenge of the 21st century has been anti-immigrant sentiments and policies targeting Latinx populations (Leidy et al. 2010; Roche et al. 2018; Torres et al. 2018). These challenges and stressors may contribute to educational disparities among U.S. Latinx individuals, including higher rates of school dropout and lower rates of college enrollment and bachelor's degree attainment, relative to Black, White, and Asian American individuals (American Psychological Association 2012; Krogstad 2016).

A long-standing deficit-oriented approach to the study of ethnic-racial minoritized youth has impeded the field's understanding of Latinx families (Perez-Brena et al. 2018), although the introduction of the integrative model of minority youth development (García Coll et al. 1996) brought culture to the forefront of developmental science and called for scholars to move beyond a focus on youth maladjustment and to recognize culturally based strengths. This perspective led to important changes and notably more strengths-based framing of research on ethnic–racial minoritized youth. In an important parallel, however, the literature on parenting among ethnic–racial minoritized families has been characterized by a similar deficit-oriented perspective, with research focused almost exclusively on parenting during adolescence, a developmental period noted for increases in problem behaviors (Rescorla et al. 2016; Wheeler et al. 2017) and declines in school engagement (Benner and Graham 2009). In contrast, little research has examined the role of Latinx parenting in *middle childhood* (for a notable exception, see Domenech Rodriguez et al. 2009).

Middle childhood is a time when children begin formal schooling, have increased opportunities for social interactions outside the home, make substantial gains in educational skills, learn to comply with teachers' expectations, and form relationships with peers (Collins and Madsen 2019; Votruba-Drzal 2006). Parents' role in supporting their children's educational adjustment in middle childhood has the potential to provide a critical foundation for future success, but the specific cultural and parenting mechanisms that are linked to Latinx children's educational adjustment in middle childhood are not well-understood. To address these gaps, this study drew on culturally informed perspectives (García Coll et al. 1996; Calzada et al. 2012; Stein et al. 2014) to examine the role of Latinx mothers' cultural assets (i.e., familism values, family cohesion) and challenges (i.e., ethnic-racial discrimination, economic hardship) in their children's educational adjustment via mother–child relationship qualities (i.e., warmth, conflict) in middle childhood. This study has the potential to broaden the field's understanding of how parenting is embedded within the cultural and ecological context of the 21st century, and may inform prevention programming *prior* to adolescence and the onset of significant adjustment difficulties for some youth.

1.1. Culturally Informed Assets and Latinx Children's Educational Adjustment

Beginning with cultural assets, we considered mothers' *familism values*, defined as their endorsement of values regarding family as a source of support, obligation, and referent (Knight et al. 2010), and *family cohesion* (i.e., family as a source of shared activities, interests, and connections; Olson et al. 1982). A central feature of culturally informed models of parenting is the role of parents' cultural values in shaping their parenting goals and practices and defining desired outcomes for their children (Calzada et al. 2012; Harwood et al. 2002). More specifically, Stein et al.'s (2014) cultural developmental model outlines how familistic attitudes and behaviors manifest in parenting/parent–youth relationships and children's adjustment from early childhood through adolescence. In middle childhood, familism is hypothesized to be reflected in positive parent–youth relationships, such as warm and responsive parenting and low levels of conflict (Stein et al. 2014), as parents' strong familism values may promote relationship behaviors that are consistent with their cultural ideal of close and harmonious family relationships (Campos et al. 2008). Supporting these associations, a recent meta-analysis revealed significant associations between familism values and higher levels of family support/warmth and lower levels of family conflict/negativity among Latinx individuals (Cahill et al.).

Stein et al. (2014) also posits that familism in middle childhood manifests in caregivers' socialization messages emphasizing that children's behavioral compliance and academic success reflects positively on the family. Thus, as children receive and internalize messages emphasizing familism, they may be motivated to do better in school. Indeed, meta-analytic findings provide support for positive associations between familism values and youth's more positive educational and behavioral outcomes, with the majority of this work focusing on adolescent and young adult samples (Cahill et al.). Developmentally, children ages 7–11 are coming to understand the importance of their behavior as reflecting on the family, including in contexts outside the home (e.g., with teachers and peers), and beginning the process of internalizing these values (Stein et al. 2014). Supporting these theoretical notions, Morcillo et al. (2011) found that parental familism values were associated with lower rates of antisocial behavior among Puerto Rican children (ages 5 to 9), and family processes partially mediated these associations, particularly in middle childhood (relative to adolescence). These authors proposed that parents' familism may be especially critical in middle childhood because children have not fully internalized their values (Morcillo et al. 2011). Although the behavioral aspects of familism have received less empirical attention, a study of recent Latinx immigrants (Leidy et al. 2010) revealed that parent-reported family cohesion was associated with more positive socioemotional competencies among children in late childhood/early adolescence (i.e., 9–12-year-olds). Despite the theoretical significance of familism in middle childhood, existing reviews underscore a dearth of studies with this developmental age group (Cahill et al.; Stein et al. 2014). Guided by Stein et al.'s (2014) model, we test the direct associations of mothers' familism values and family cohesion (as a proxy for familistic behaviors) with children's educational adjustment, as well as potential indirect associations via mother–child warmth and conflict.

1.2. Contextually Informed Risk Factors and Latinx Children's Educational Adjustment

The integrative model (García Coll et al. 1996) also draws attention to contextual characteristics that may be sources of risk, including social position factors (e.g., socioeconomic status) and mechanisms of oppression (e.g., segregation, discrimination). In this study, we considered mothers' perceptions of economic hardship and discrimination as factors that may undermine children's educational adjustment in middle childhood. The family stress model posits that economic hardship impacts youth adjustment via negative effects on parent and family functioning (Conger et al. 1994), and empirical support extends to Latinx families in early childhood (e.g., Derlan et al. 2019) and adolescence (e.g., Delgado et al. 2013; White et al. 2015). Although originally focused on economic strain, the family stress model has been expanded to include parents' culturally based stressors (Conger et al. 2012). In a study of recent immigrant families of predominantly Cuban and Mexican

descent, parents' culturally based stressors predicted youth's depression, aggression, and self-esteem via youth's reports of family functioning in late adolescence (Lorenzo-Blanco et al. 2012). We extend this research to examine mothers' experiences of economic hardship and ethnic–racial based discrimination as predictors of children's educational adjustment and indirect associations via mother–youth warmth and conflict in middle childhood.

1.3. The Role of Mother–Child Relationship Quality

Warmth and conflict are universal dimensions of parent–youth relationships across a broad range of ethnic, racial, and cultural contexts (Li and Warner 2015; Steinberg 2001), with higher levels of warmth and lower levels of conflict generally being associated with more positive adaptation and fewer adjustment problems (Khaleque 2013; Weymouth et al. 2016). In Latinx culture, where there is a strong emphasis on family-oriented values and practices, parent–youth relationships characterized by high warmth and low conflict may be particularly important for children's adjustment given their alignment with cultural ideals for close and harmonious family relationships (Campos et al. 2008). Research on the role of parent–youth conflict in Latinx families, although largely based on adolescent samples, suggests particularly negative implications for youth adjustment (Li and Warner 2015; Kuhlberg et al. 2010; Pasch et al. 2006). Examining four Latinx subgroups (Mexican, Cuban, Nicaraguan, Colombian), Li and Warner (2015) found that higher parent–youth conflict was consistently associated with lower ratings of self-esteem among children of immigrants. In another study of Mexican American adolescents, conflict with mothers and fathers was associated with a wide range of internalizing (depression, anxiety) and externalizing (anger, substance use, school misconduct) outcomes (e.g., Pasch et al. 2006). Extending this work to middle childhood, we tested whether mother–child warmth was associated with higher socioemotional and academic competence and lower aggressive/oppositional behavior (Santesteban-Echarri et al. 2017; Taylor et al. 2015); we also tested whether conflict was linked to less optimal educational adjustment.

1.4. Moderating Role of Child Gender and Birth Order

Latinx families are characterized by a strong emphasis on gender-differentiated roles and socialization (Umaña-Taylor and Updegraff 2013), which may mean that associations among parents' cultural assets/challenges, parent–child relationship qualities, and children's adjustment vary by child gender. Research on youth gender as a moderator of the links among cultural values and practices, parenting, and youth adjustment provide some evidence of stronger associations for girls relative to boys, based on the notion that females are socialized with a stronger emphasis on family roles and relationships in this cultural context (Lorenzo-Blanco et al. 2012; Morcillo et al. 2011; Updegraff et al. 2005). However, this work largely focuses on families with adolescents, and little is known about potential gender differences in middle childhood among Latinx immigrant families (Schroeder and Bámaca-Colbert 2019). Thus, we explored the possibility of gender moderation in middle childhood, expecting that if differences emerged, the associations may be stronger for parents of female versus male children.

A unique strength of our study was the focus on *two* children in each family, as research has documented that children in the same family may experience relationships with their parents differently (e.g., Daniels and Plomin 1985; McHale et al. 2003). Birth order differences in parenting, and their implications for youth adjustment, may emerge for different reasons, including because children are in different developmental periods or because what parents learn from one child has implications for their parenting of the next child (Whiteman et al. 2003). Spillover in family dynamics are another possibility, such as when the older child's transition to adolescence is linked to increases in parent–child conflict for them and their younger siblings (Shanahan et al. 2007a). There has been attention to within-family differences in parenting, including warmth and conflict, in middle childhood in European American families (Shanahan et al. 2007a, 2007b). Fewer studies have examined parenting of multiple children in Latinx families, with notable

exceptions focused on families with adolescents (McHale et al. 2005; Padilla et al. 2016). In this study, we explore whether birth order moderates the direct and indirect associations among parents' cultural assets and challenges, parent–child relationship quality, and children's educational adjustment.

1.5. The Current Study

The overarching goal of this study was to examine the links among Latinx parents' culturally informed assets (familism values, family cohesion) and challenges (economic hardship, experiences of discrimination), universal characteristics of parent–child relationships (warmth, conflict), and children's educational adjustment in middle childhood. Using concurrent reports of parents' cultural assets, challenges, and parent–child relationship qualities, as well as teachers' ratings of children's academic and socioemotional competencies and aggressive/oppositional behaviors, we tested direct associations from parents' cultural assets and challenges to children's educational adjustment; we also tested indirect associations via mother–child warmth and conflict. We expected these associations may be stronger for mothers with female, relative to male, children based on gender-differentiated roles in Latinx families (Schroeder and Bámaca-Colbert 2019; Updegraff et al. 2014). We also explored moderation by birth order (i.e., within-family differences). Finally, we controlled for the child's age to account for the age span of children across middle childhood (i.e., 6 to 11 years of age), and for mothers' immigrant status, given anti-immigrant sentiments and policies, particularly in the local context of the present study (Santos et al. 2018; Toomey et al. 2014).

2. Method

2.1. Participants

Participants were 173 Latinx mothers who participated in the baseline phase of a larger clinical trial (NCT 03706014) testing the efficacy of a family-based, sibling-focused prevention program. Eligibility for participation in the clinical trial included having a 5th grader and younger sibling (1st–4th grade) of Latinx origin who lived together for at least three years, attended the same elementary school, and did not have significant disabilities that would prevent participation; children also needed a primary caregiver who spoke English or Spanish and was willing to participate. For 97% of children, the primary caregiver was their biological mother.

To recruit families, letters and recruitment flyers in Spanish and English were distributed to parents/caregivers of Latinx 5th graders who had a sibling in 1st through 4th grade in the same school. All ten participating schools had a Title I designation, and the percentage of students eligible for free/reduced lunch ranged from 78% to 93% across schools. A total of 396 letters were sent, and follow-up calls to assess eligibility and interest in participation were conducted by bilingual staff with 356 families (40 families could not be reached). Of the 356 families, 259 were eligible (73%), 49 refused the screening to determine eligibility (14%), and 48 were ineligible (13%). Of the 259 eligible families, 215 families (83%) provided baseline data, including 185 mothers. Given the goals of the present study, the analytic sample was limited to Latinx mothers (n = 173; 93.5% of mothers), and 12 non-Latinx mothers were excluded. In one family, two sibling pairs participated; thus, background characteristics are reported for 173 mothers and their 348 participating children (i.e., 174 fifth graders and 174 younger siblings).

These mothers averaged 36.5 years of age (SD = 6.65) and were predominantly of Mexican (90.2%), Guatemalan (3.5%), or Salvadoran origin (2.3%), with the remaining mothers being of another Latinx subgroup (<1%). In terms of racial identification, mothers indicated they were White (37.7%), American Indian/Alaskan Native (2.4%), multiracial (2.4%), or other (57.5%). Most mothers who selected "other" for race specified a panethnic (i.e., Latino/a, Hispanic) or ethnic (e.g., Mexican) label. A majority of mothers (74.6%) were born outside of the U.S and preferred Spanish for their interview language (71.7%). In terms of education level, slightly over half of the mothers did not have a high school degree

(55.5% of mothers), and a smaller percentage had a high school degree or GED (31.8% of mothers), with the remainder having some post-high-school education or a college degree. Among participating mothers, 74.6% were married or living with a partner. For those who reported income (89%), median household income was $31,127 (SD = $19,308; range = $1500–$133,000) for an average of 6.1 household members (*SD* = 1.82; range = 3 to 16). A high percentage of families (97.7%) accessed at least one form of public assistance, with the most common being free/reduced price meals at school (92.4%), health insurance (82.1%), and nutritional assistance programs (49.7%). Fifth graders averaged 10.63 years of age (*SD* = 0.41) and younger siblings averaged 8.24 years of age (*SD* = 1.06). Children were identified by mothers as female (50.3%) or male (49.7%).

2.2. Procedure

Data were collected via home visits and phone interviews with mothers, and self-administered surveys were completed by teachers. First, each family was visited at home by two project staff (at least one bilingual) to describe the project and complete informed consent/assent and a family background questionnaire. All materials were read aloud to mothers and their answers were recorded on paper surveys. These visits averaged one hour, and families received a $20 honorarium. Following the home visit (2 to 4 weeks), mothers participated in a phone interview in their preferred language lasting an average of 60 min. All questions were read to mothers and their responses were recorded on paper surveys. Each parent received a $35 honorarium for participating in the phone interview. Mothers provided consent for teachers to complete ratings about each participating child. Teachers received $10 for each student packet they completed. All procedures were approved by the Human Subjects Review Boards at Arizona State University and The Pennsylvania State University [Title: Innovative Family Prevention with Latinos; protocol #00006528 and STUDY00010473, respectively] and the Research and Evaluation Board of the participating school district.

2.3. Measures

All items were forward translated to Spanish by one person, back translated to English by a second person, and reviewed by a third person. Discrepancies were discussed with the team and resolved following a process of decentering, in which the goal was meaningful, rather than literal, translation (Knight et al. 2009).

2.3.1. Familism Values

Mothers completed the 16-item familism subscale of the Mexican American Cultural Values Scale (Knight et al. 2010). The measure assesses three aspects of familism (i.e., support/closeness, obligations, and family as referent), and items are averaged for an overall mean score. Each item is rated on a 4-point scale ranging from 1 (*Strongly Disagree*) to 4 (*Strongly agree*), with a sample item being "Children should always do things to make their parents happy." Cronbach's alpha was 0.84.

2.3.2. Family Cohesion

Mothers completed the cohesion subscale (16 items) of the Family Adaptability and Cohesion Evaluation Scales II (FACES II; Olson et al. 1982); psychometric properties have been established in prior work with Latinx samples (Roosa et al. 1996). The subscale measures family connectedness, with sample items including "Family members like to spend their free time with each other" and "Family members share interests and hobbies with each other." Each item is rated on a 5-point scale ranging from 1 (*Almost never or never*) to 5 (*Almost always or always*) and items are summed for a scale score. Cronbach's alpha was 0.79.

2.3.3. Ethnic–Racial Discrimination

Mothers' experiences of discrimination were assessed with the Everyday Discrimination Scale (EDS), originally developed by Williams et al. (1997) for African American

women, using the 9-item adapted version based on Reeve et al. (2011) and Williams et al. (2008). The dimensionality and construct validity of EDS has been empirically supported with the Latinx subsample of the National Latino and Asian Study (Molina et al. 2013). A sample item is "You are treated with less respect than other people are because you are Hispanic/Latino." Each item is rated on a 5-point scale ranging from 1 (*Almost every day*) to 5 (*Never*). Items were reverse coded so that higher scores indicated more frequent experiences of discrimination (α = 0.92).

2.3.4. Perceived Economic Hardship

Mothers rated their perceptions of economic hardship using a 6-item scale (Howe et al. 1995; Kessler et al. 1988). Mothers were asked how often they experienced each item in the past three months, including having to "Miss payments on your bills," "Not go to see the doctor or dentist because of cost," and "Reduce spending on household expenses such as food and clothing." Each item was rated on a scale of 1 (*Not at all*) to 4 (*A lot*), and items were averaged for a total score (α = 0.74).

2.3.5. Mother–Child Relationship Quality

Mothers completed the parent version of the warmth subscale of the Children's Report of Parental Behavior Inventory (CRPBI; Schwarz et al. 1985), which includes eight items assessing mothers' warm and supportive behaviors toward their child (e.g., "I understand [child's name]'s problems and worries."). The cross-ethnic and language equivalence (English to Spanish) of this measure has been established with Latinx populations (Knight et al. 1994). Mothers rated items on a 5-point scale (1 = *Almost Never* to 5 = *Almost Always*) at separate points in the interview for 5th graders and younger siblings (counterbalanced), which were averaged for the scale score. Cronbach's alphas were 0.81 and 0.78 for mothers' warmth with 5th graders and younger siblings, respectively.

Mothers also rated the frequency of conflict in nine domains with each child (i.e., 5th graders, younger siblings) on a 6-point scale ranging from 1 = *Not at all* to 6 = *Several times a day*. Items were originally based on a measure by Smetana (1988) and adapted for Latinx families (Updegraff et al. 2009). Domains of conflict included homework/schoolwork, respect for parents, getting along with sisters/brothers, doing chores, electronics, bedtime and curfew, friends, and the importance of family. Items were rated at separate points in the interview for 5th graders and younger siblings (counterbalanced) and averaged to create a mother–child conflict score with each child. Cronbach's alphas were 0.86 and 0.85 for mothers' ratings with 5th graders and younger siblings, respectively.

2.3.6. Children's Educational Adjustment

Teachers rated children's academic and social competencies (Conduct Problems Prevention Research Group 1999) and aggressive/oppositional behaviors (Werthamer-Larsson et al. 1991) in the school setting. The academic competence subscale included five items assessing behaviors such as reading grade-level materials, solving grade-level math problems, and turning in homework. The socioemotional competence subscale included 12 items reflecting prosocial behaviors (e.g., "This child shows empathy and compassion for others' feelings") and emotion regulation ("This child recognizes and labels his/her feelings and those of others appropriately"). The aggressive/oppositional behaviors subscale (7 items) included behaviors such as breaking things on purpose, yelling at others, and knowingly breaking the rules. Teachers were instructed to rate the target child relative to other students in the same grade level on all three subscales ranging from 1 (*Almost Never*) to 5 (*Very Often*). Items were averaged to create mean scores for academic competence (αs = 0.90 for 5th graders and 0.92 for younger siblings), socioemotional competence (αs = 0.76 for 5th graders and 0.72 for younger siblings), and aggressive/oppositional behavior subscales (αs = 0.93 for 5th graders and 0.95 for younger siblings).

2.4. Covariates

Mothers reported on their nativity status (0 = U.S.-born; 1 = born outside the U.S.) and children's gender (0 = male; 1 = female). Children's age was calculated based on their date of birth and the home visit date. Birth order was coded as 0 = 5th grader (older sibling) and 1 = younger sibling.

3. Results

3.1. Preliminary Analyses

Means, standard deviations, and bivariate correlations are shown in Table 1. Examination of mean scores indicated that, on average, Latinx mothers reported moderately high levels of familism values and family cohesion, falling above the midpoint on both scales; their experiences of economic hardship were slightly below the midpoint, and experiences of discrimination were relatively low (i.e., 1.5 on a 5-point scale). In terms of the parent–child relationship, warmth was well above the midpoint and conflict was slightly below the midpoint. Teachers' ratings of children's academic competencies revealed that children were between "sometimes" and "often" able to perform at grade level, achieve academic goals, and turn in homework, and that they demonstrated moderately high levels of socioemotional competencies and relatively low levels of aggressive/oppositional behaviors. Bivariate correlations were generally in expected directions and small to medium in size based on Cohen (1992), with values of 0.20, 0.50 and 0.80 indicating small, medium, and large correlations, respectively. Among mothers' cultural assets and challenges, familism values and cohesion were positively correlated as were discrimination and economic hardship, with both being small in magnitude. Links between mothers' assets/stressors and mother–child warmth and conflict were in expected directions, with cultural assets being associated with more warmth and stressors being associated with more conflict. Among the three indicators of children's educational adjustment, correlations were medium in size, ranging from 0.43 to 0.65. Paired *t*-tests revealed a significant birth order difference in mother–child warmth, *t* (173) = 2.34, *p* = 0.02, with mothers reporting more warmth with younger compared to older siblings (see Table 1 for means), but there were no mean differences between older and younger siblings for mother–child conflict or educational adjustment outcomes.

Table 1. Bivariate Correlations, Means, and Standard Deviations for Study Variables.

	1	2	3	4	5	6	7	8	9	10	11	12
1. Fam	-	0.28 ***	0.12	0.09	0.21 **	−0.03	−0.04	−0.02	0.04	0.02	0.12	0.13
2. Coh	0.28 ***	-	0.04	−0.18 *	0.35 ***	−0.24 *	0.06	−0.07	−0.04	−0.02	−0.13	0.09
3. Disc	0.12	0.04	-	0.22 **	0.05	0.16 *	0.05	0.13	0.1	0.09	−0.04	0.13
4. Econ	0.09	−0.18 *	0.22 **	-	−0.14	0.19 *	0.03	0.02	0.1	0	0.06	−0.13
5. Warm	0.19 *	0.36 ***	−0.06	−0.16 *	-	−0.34 ***	0.05	0.19 *	−0.18 *	0.05	−0.06	0.09
6. Conf	0.03	−0.19 *	0.21 **	0.25 **	−0.31 ***	-	−0.29 ***	−0.32 ***	0.35 ***	−0.16 *	0.08	−0.21 **
7. Acad	0.03	0.23 **	0.04	−0.13	0.04	−0.24 **	-	0.59 ***	−0.49 ***	0.20 *	−0.07	0.17 *
8. Socio	0.01	0.21 **	0.01	−0.06	0.19 *	−0.11	0.45 ***	-	−0.65 ***	0.29 ***	0.08	0.16 *
9. Agg	−0.03	−0.09	0.11	0.06	−0.08	0.20 **	−0.43 ***	−0.47 ***	-	−0.33 ***	−0.03	−0.1
10. Gen	0.06	0.07	0.09	0.01	0	−0.03	0.08	0.20 **	−0.24 **	-	0.11	0.02
11. Age	0.04	−0.1	0.12	−0.02	0.03	0.02	−0.06	0.08	0.1	−0.11	-	−0.04
12. Nat	0.13	0.09	0.13	−0.13	0.11	−0.17 *	0.23 **	0.12	−0.15	−0.07	0.07	-
OS *M* (*SD*)	4.41 (0.43)	3.97 (0.54)	1.50 (0.45)	1.72 (0.61)	4.44 (0.49)	2.40 (0.99)	3.48 (0.98)	3.39 (0.50)	1.44 (0.67)	0.47 (0.50)	10.63 (0.41)	0.73 (0.44)
YS *M* (*SD*)	4.41 (−0.43)	3.97 (0.54)	1.50 (0.45)	1.72 (0.61)	4.52 (0.44)	2.35 (1.00)	3.46 (1.06)	3.44 (0.46)	1.47 (0.81)	0.53 (0.50)	8.25 (1.06)	0.73 (0.44)

Note. Correlations are above the diagonal for younger siblings and below for older siblings. Fam = Familism, Coh = Cohesion, Disc = Discrimination, Econ = Economic hardship, Warm = Mother-child warmth, Conf = Mother-child conflict, Acad = Academic competence, Socio = Socioemotional competence, Agg = Aggressive/Oppositional Behaviors, Gen = Child gender, Age = Child age, Nat = Mother nativity; Mother nativity is coded as 0 = *U.S.-born* and 1 = *born outside the U.S.*; children's gender coded as 0 = *male* and 1 = *female*. *M* = Mean, *SD* = Standard Deviation. * *p* < 0.05, ** *p* < 0.01, *** *p* < 0.001.

3.2. Associations among Mothers' Cultural Assets and Challenges, Parent–Child Relationships, and Children's Educational Adjustment

Path analytic models were conducted in Mplus (version 8.6; Muthén and Muthén 1998–2018) to test direct effects of Latinx mothers' familism values, family cohesion, economic hardship, and discrimination on children's academic competence, socioemotional competence, and aggressive/oppositional behaviors, as well as the indirect effects via mother–child warmth and conflict. Covariates included mother nativity, birth order, child gender, and child age. Two parallel models were tested, one for mothers' reports of warmth and a second for their reports of conflict. Missing data ranged from 0% to 9% across study variables and were estimated via full information maximum likelihood. To adjust for the nonindependence of observations due to the nestedness of siblings within families, we used the TYPE = COMPLEX command (Muthén and Muthén 1998–2018). Statistical significance of indirect effects was estimated using 1000 bootstrap resamples and examination of confidence intervals (MacKinnon et al. 2004). Moderation by child gender and birth order were examined using multiple group analysis. Specifically, child gender was removed as a covariate and the model with freely estimated paths across boys and girls was compared against a fully constrained model with all regression paths set to be equal across groups. When constraining all structural paths to be equal across groups did not yield a significant decrease in model fit based on the Satorra–Bentler adjusted chi-squared difference test, the constrained model was retained for parsimony (Satorra and Bentler 2001). When constraining all paths produced a significant decrease in the model fit, each parameter estimate was compared using the MODEL CONSTRAINT command to identify paths that significantly differed across groups to achieve a final partially constrained model. The process was repeated to test sibling birth order moderation. Unstandardized coefficients are reported in the text and standardized coefficients are shown in Table 2 and Figures 1 and 2.
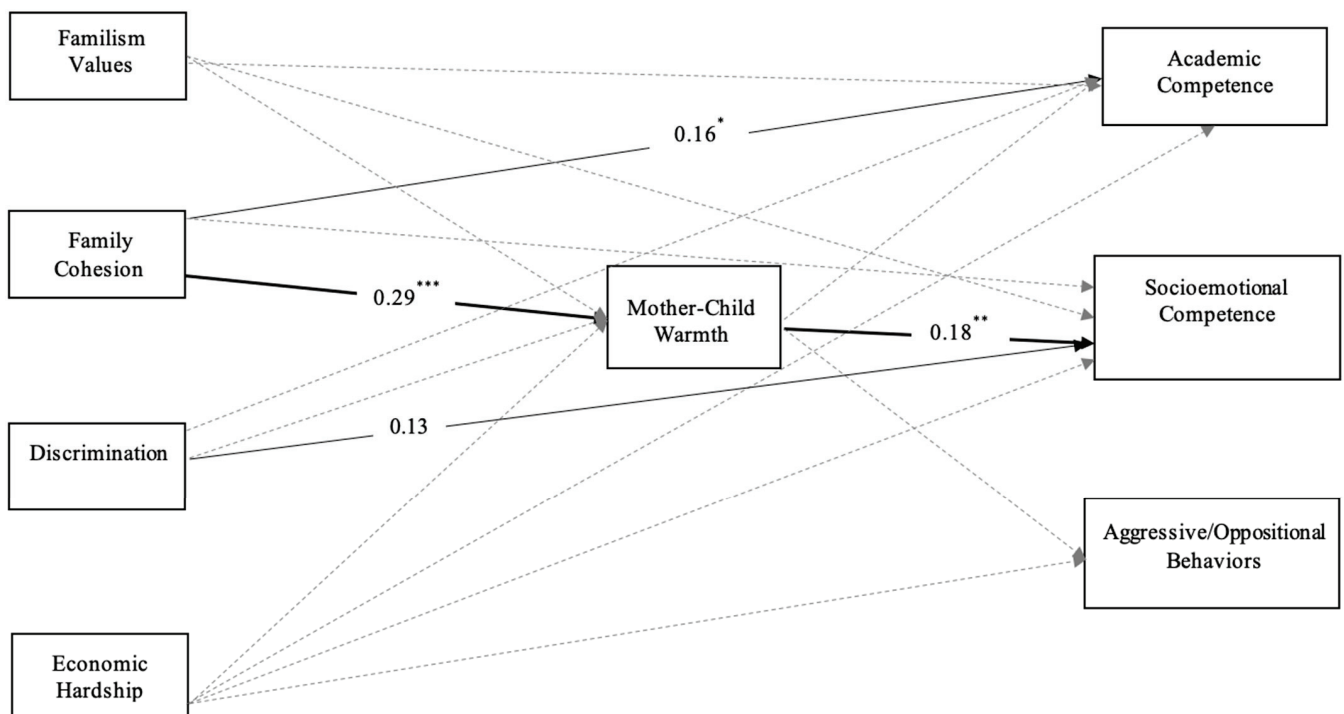
Figure 1. Mothers' Cultural Assets and Challenges and Children's Educational Adjustment via Mother–Child Warmth. Note. Standardized parameters are reported. Covariances, residual correlations, and covariates are not shown in the figure for parsimony. Solid lines represent significant direct effects. Bolded lines represent significant indirect paths. Dashed lines represent nonsignificant paths. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 2. Results for the associations between mothers' cultural assets and challenges and children's educational adjustment via mother–child warmth and conflict.

	Mother–Child Warmth Model		Mother–Child Conflict Model	
	β	SE	β	SE
Predictors of Mother–Child Warmth/Conflict				
Familism values	0.121	0.063	0.017	0.054
Family cohesion	0.294 ***	0.059	−0.184 **	0.067
Discrimination	−0.030	0.045	−0.141 *	0.071
Economic hardship	−0.119	0.061	0.157 *	0.068
Predictors of Academic Competence				
Mother–child warmth/conflict	−0.019	0.073	−0.223 **	0.065
Familism values	−0.091	0.066	−0.080	0.067
Family cohesion	0.159 *	0.062	0.116	0.063
Discrimination	−0.076	0.062	−0.104	0.064
Economic hardship	−0.002	0.065	0.022	0.065
Mother nativity	0.207 **	0.066	0.211 **	0.081
Child gender	0.149 **	0.055	0.090	0.075
Child age	−0.013	0.051	−0.038	0.072
Predictors of Socioemotional Competence				
Mother–Child warmth/conflict	0.177 **	0.061	−0.091/−0.318 ***	0.066/064
Familism values	−0.104	0.056	−0.07	0.086
Family cohesion	0.041	0.060	0.184 */−0.092	0.054/065
Discrimination	−0.128 *	0.050	−0.162 **	0.048
Economic hardship	0.010	0.053	0.011	0.047
Mother nativity	0.154 *	0.062	0.124	0.088
Predictors of Socioemotional Competence				
Child gender	0.25 ***	0.047	0.222 **	0.064
Child age	0.021	0.053	0.139	0.079
Predictors of Aggressive/Oppositional Behaviors				
Mother–Child warmth/conflict	−0.104	0.070	0.166 */0.325 ***	0.078/0.077
Familism values	0.074	0.061	0.044	0.064
Family cohesion	−0.020	0.058	0.008	0.059
Discrimination	0.072	0.057	0.003/−0.181 **	0.089/0.068
Economic hardship	0.059	0.062	0.048	0.065
Mother nativity	−0.121	0.059	−0.132	0.078
Child gender	−0.29 ***	0.044	−0.236 ***	0.060
Child age	−0.033	0.051	0.075	0.070

Note. Estimates that differed by sibling birth order are reported in the order of older/younger sibling. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
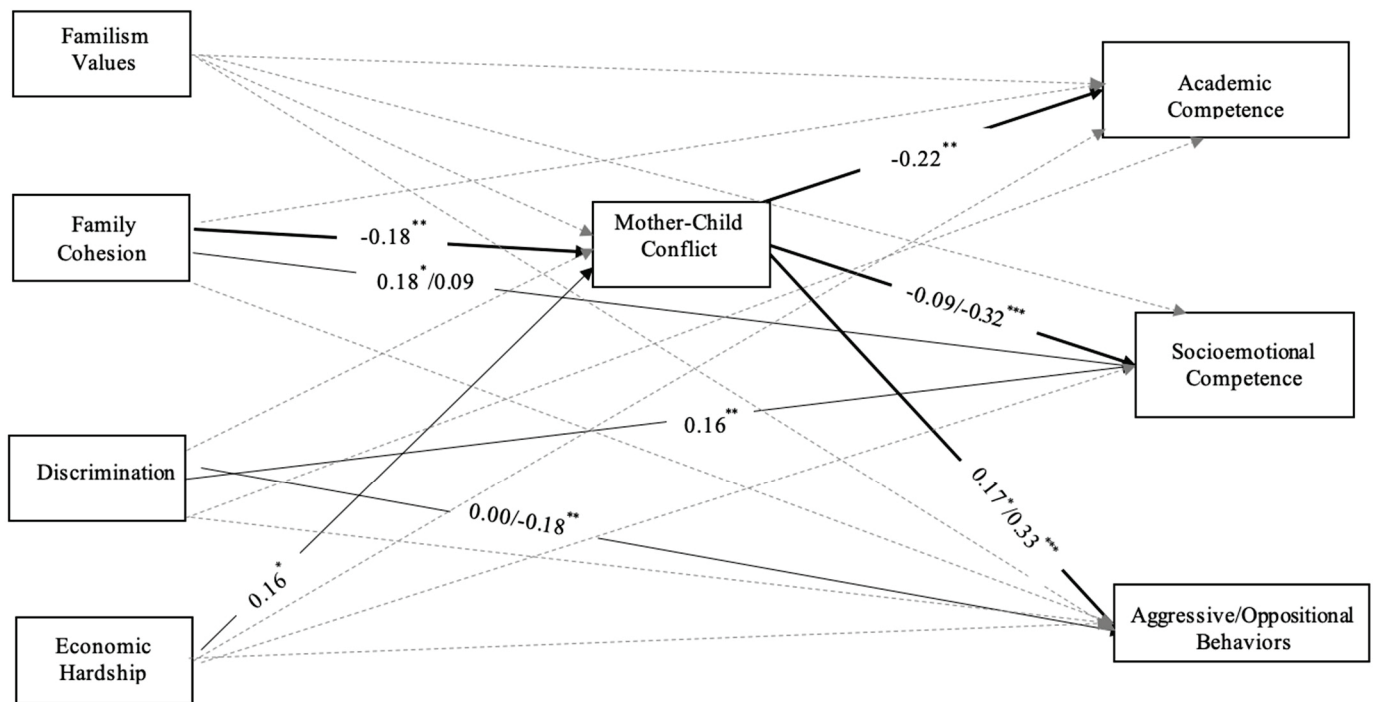
Figure 2. Mothers' Cultural Assets and Challenges and Children's Educational Adjustment via Mother–Child Conflict. Note. Standardized parameters are reported. For paths that differed by sibling birth order, parameters are reported for each group separated by the slash symbol (older sibling/younger sibling). Covariances, residual correlations, and covariates are not shown in the figure for parsimony. Solid lines represent significant direct effects. Bolded lines represent significant indirect paths. Dashed lines represent nonsignificant paths. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

For the model including mother–child *warmth*, comparisons of the fully unconstrained and constrained models by child gender and birth order revealed no changes in model fit, $\Delta\chi^2$ (19) = 9.82, $p = 0.957$ for child gender, and $\Delta\chi^2$ (19) = 26.98, $p = 0.105$ for sibling order, suggesting that the structural paths did not differ for girls versus boys and older versus younger siblings. As shown in Figure 1, family cohesion was positively related to academic competence ($b = 0.30$, $p = 0.012$), mothers' experiences of discrimination were positively associated with child socioemotional competence ($b = 0.09$, $p = 0.014$), and familism and perceived economic hardship were not significantly associated with children's adjustment. There was one significant indirect effect in this model: family cohesion was associated with socioemotional competence via mother–child warmth ($ab = 0.052$, 95% CI = [0.021, 0.096]). Significant covariates included child gender predicting academic competence ($b = 0.30$, $p = 0.008$), socioemotional competence ($b = 0.24$, $p < 0.001$), and aggressive/oppositional behaviors ($b = -0.43$, $p < 0.001$), such that girls reported higher academic and socioemotional competencies than boys, and boys reported higher aggressive/oppositional behaviors than girls. Mother nativity predicted academic competence ($b = 0.48$, $p = 0.002$), socioemotional competence ($b = 0.17$, $p = 0.012$), and aggression ($b = -0.20$, $p = 0.029$), such that teachers reported higher academic and socioemotional competencies and lower aggressive/oppositional behaviors for children of mothers born outside the U.S. Child age was not a significant covariate of any of the three adjustment outcomes.

For the second model including mother–child *conflict*, there were no differences between the fully unconstrained and constrained models by child gender, $\Delta\chi^2$ (19) = 23.72, $p = 0.207$, but significant differences were found for sibling birth order, $\Delta\chi^2$ (19) = 38.87, $p = 0.005$. Testing specific paths revealed the following birth order differences: family cohesion to child socioemotional competence, mothers' discrimination to aggressive/oppositional behavior, and mother–child conflict to socioemotional competence and aggressive/ oppositional behavior. Thus, these paths and their corresponding indirect effects were allowed to vary

for older versus younger siblings, while all other structural paths were constrained to be equal (see Figure 2). Family cohesion was positively associated with children's socioemotional competence for older siblings (b = 0.17, p = 0.027), but no significant association emerged for younger siblings (b = −0.08, p = 0.166). Mothers' reports of discrimination were associated with children's socioemotional competence for both older and younger siblings (b = 0.12, p < 0.001). Mothers' discrimination also was negatively associated with aggressive/oppositional behaviors for younger siblings (b = −0.21, p = 0.011), but no significant association emerged for older siblings (b = −0.003, p = 0.972). Mothers' familism and economic hardship did not significantly predict children's educational adjustment, but economic hardship was positively related to mother–child conflict (b = 0.26, p = 0.024).

Turning to indirect effects, mother–child conflict had significant indirect effects on the relations between family cohesion and children's academic competence (ab = 0.075, 95% CI = [0.019, 0.158]) for both older and younger siblings. In addition, the indirect effect of mother–child conflict was significant for family cohesion and aggressive/oppositional behaviors (ab = −0.09, 95% CI = [−0.184, −0.027]) and family cohesion and socioemotional competence (ab = 0.049, 95% CI = [0.014, 0.094]) for younger siblings, but not for older siblings (ab = −0.038, p = 0.119 for aggressive/oppositional behaviors and ab = 0.016, p = 0.233 for socioemotional adjustment). In terms of covariates, child gender was a significant predictor of socioemotional competence (b = 0.22, p = 0.002) and aggressive/oppositional behaviors (b = −0.32, p < 0.001); mother nativity predicted academic competence (b = 0.47, p = 0.01), such that children with mothers born outside of the U.S. had higher academic competence relative to those with U.S.-born mothers. Child age was not a significant covariate.

4. Discussion

The 21st century has brought unprecedented change in the ethnic–racial composition of the U.S. (Krogstad 2019), highlighting the importance of examining the opportunities and challenges parents face, particularly parents from ethnic–racial minoritized groups who have been historically underrepresented in research and prevention science. Our focus was on one such group, Latinx families, whose children comprise more than 25% of the K-12 school population (Child Trends 2018). This study contributes new knowledge about the associations among mothers' culturally based assets and challenges, universally salient features of the mother–child relationship (i.e., warmth, conflict), and children's educational adjustment based on a sample of predominantly immigrant Latinx families. Our focus on middle childhood addresses a significant gap, as most research on Latinx families has examined parenting dynamics in *adolescence*. Indeed, middle childhood is a time when prevention efforts, particularly supports for parents (e.g., Parra Cardona et al. 2012), may be critical in shaping children's educational adjustment and, subsequently, their long-term educational and economic opportunities (National Center for Education Statistics 2021).

4.1. Culturally Informed Assets, Mother–Child Relationship Quality, and Children's Educational Adjustment

Guided by culturally and ecologically based models (Calzada et al. 2012; García Coll et al. 1996; Stein et al. 2014), we examined mothers' familism values and family cohesion as potential resources that may be directly associated with children's academic, socioemotional, and behavioral functioning and indirectly linked via mother–child relationship quality. Our findings revealed the expected positive bivariate associations between mothers' familism values and mother–child warmth (Cahill et al.; Stein et al. 2014), but there were no significant direct associations from mothers' familism values to children's educational adjustment. These nonsignificant associations stand in contrast to research with primarily *adolescent* and *young adult* samples, revealing links between familism values and more positive educational outcomes and fewer externalizing symptoms (Cahill et al.). There also was no evidence that mothers' familism values were indirectly related to children's educational adjustment via mother–child warmth and conflict. When accounting for multiple

dimensions of mothers' cultural assets and challenges within a single model, *family cohesion* was directly and indirectly associated with children's educational adjustment. Specifically, family cohesion was related to higher levels of mother–child warmth, which was associated with more positive socioemotional functioning. That this finding was consistent across sibling birth order and child gender suggests the general importance of family cohesion and mother–child warmth for children's socioemotional competencies (i.e., prosocial interactions, emotional regulation strategies) in elementary school, and is consistent with research on recent Latinx immigrant families with slightly older children (i.e., 9 to 12 years of age; (Leidy et al. 2010)). In this sample of predominantly immigrant Latinx mothers who endorsed strong family-oriented values (i.e., almost 4.5 on a 5-point scale), it is possible that family interactions that are consistent with these values, including shared activities, interests, and connectedness among family members, along with warm and supportive relations between mothers and their children, are particularly salient for children's socioemotional functioning (Leidy et al. 2010). Our findings suggest the importance of examining both attitudinal *and* behavioral components of familism across different developmental periods to gain a more complete picture of their implications for family functioning and youth adjustment (Cahill et al.; Stein et al. 2014).

These findings also complement research on Latinx parenting styles in middle childhood (Domenech Rodriguez et al. 2009), which has identified different constellations of parenting behaviors (warmth, demandingness, and autonomy granting). Further, we extend research on the benefits of family cohesion and parental support for Latinx adolescents' adjustment (Bámaca-Colbert et al. 2018) to middle childhood (Leidy et al. 2010) and to children's positive socioemotional functioning in the school setting. Although our findings cannot be generalized to other sociocultural contexts, it is possible that family cohesion and warm and supportive mother–child relationships in middle childhood are resources that benefit all children, regardless of their culturally and contextually based resources and challenges, as they navigate their early years of formal schooling and learn to interact with teachers and classmates.

Turning to the models including mother–child conflict as a potential indirect mechanism, our findings extend research that has predominantly focused on parent–youth conflict in Latinx families during *adolescence* (e.g., Li and Warner 2015; Padilla et al. 2016; Pasch et al. 2006). For both older and younger siblings and female and male children, higher levels of family cohesion were associated with lower levels of mother–child conflict and, in turn, teachers' reports of children's more positive academic functioning, specifically their completion of homework and ability to achieve their academic goals and master grade-level reading and math skills. A home environment characterized by family connectedness and low levels of mother–child conflict may increase the likelihood that Latinx children can focus on school-related tasks and be successful in their academic work. These more harmonious family environments, which align with the cultural values of Latinx families (Campos et al. 2008; Leidy et al. 2010), may provide the foundational skills and motivation for children to be successful at school, highlighting potential sources of strength and resilience for Latinx youth (Cahill et al.; Leidy et al. 2010; Stein et al. 2014). More generally, these findings underscore the importance of the family context in children's successful academic functioning in *middle childhood*, a critical time when they are adapting to a complex educational environment (Collins and Madsen 2019; Votruba-Drzal 2006) that is unfamiliar to the majority of their parents, who have limited experience with U.S. K-12 schools (Suarez-Orozco et al. 2010).

It is notable that the pattern of findings linking family cohesion to mother–child conflict to children's adjustment was significant for *all* three domains of educational adjustment for younger siblings. That is, for younger siblings the indirect effects emerged for socioemotional competence and aggressive/oppositional behaviors in addition to academic competence, suggesting the particular importance of these familial processes for younger children during their early to middle elementary school years (i.e., 1st to 4th grade). A strength of our study was the focus on two children in each family and the consideration of

within-family variation. Although family cohesion was related to less mother–child conflict for both siblings, and mothers reported similar levels of conflict with older and younger siblings, the links from mother–child conflict to children's socioemotional functioning and aggressive/oppositional behaviors were specific to younger siblings. It is possible that mother–child conflict has different implications for the adjustment of older siblings, who are on the verge of adolescence, relative to their younger siblings who are in middle childhood. One possibility is that, for younger siblings, who are in middle childhood and have relatively less autonomy and spend more time with parents than their older siblings (Shanahan et al. 2007a), mother–child conflicts may be more salient for their adjustment. It also may be that mother–child conflicts in middle childhood are more likely to reflect interpersonal difficulties that also manifest in children's interactions at school, including more limited emotion regulation skills and more frequent aggressive/oppositional behaviors. These findings are among the first to examine within-family variation in these processes in middle childhood in Latinx families, and underscore the potential importance of mother–child conflict in middle childhood in this cultural context, particularly for younger children in our sample. Furthermore, our findings suggest the possibility that prevention programs that include strategies for addressing mother–child conflict in middle childhood may be beneficial for Latinx children's functioning in multiple domains at school.

4.2. Culturally Informed Challenges, Mother–Child Relationship Quality, and Children's Educational Adjustment

In addition to considering the strengths that Latinx mothers bring to their parenting, we also considered two particular challenges that are disproportionately experienced by Latinx families: economic hardship (Shrider et al. 2021) and discrimination (Ayón and Garcia 2019). Our expectations regarding the associations among stressors, parent–youth relationship quality, and children's educational adjustment were informed by the family stress model (Conger et al. 1994) and its extension to culturally based stressors (Conger et al. 2012; Lorenzo-Blanco et al. 2012). Our measure of economic hardship focused on mothers' perceptions of how difficult it was to meet their financial demands, such as paying bills on time, providing essential items such as food and clothing, and covering medical expenses. As our sample was recruited from economically disadvantaged schools, the distribution of household income was limited in range and less likely to provide an indication of whether and how economic circumstances are associated with stress and hardship for families. We found that mothers' perceptions of family economic hardship were positively related to mother–child conflict at the bivariate level and in our multivariate model for both older and younger siblings. However, contrary to the family stress process model and empirical support with Latinx families in early childhood (Derlan et al. 2019) and early adolescence (Delgado et al. 2013; White et al. 2015), we found limited evidence linking mothers' perceptions of economic hardship to children's adjustment via mother–child relationship quality in middle childhood.

Several characteristics of this study may underlie the lack of support for the family stress model. First, mothers' ratings of economic hardship were low to moderate, and all children attended Title I elementary schools where additional financial supports may be widely in place. Most families (almost 98%) also accessed various sources of public assistance (e.g., free/reduced price meals, nutritional assistance, and healthcare). Thus, in the context of these safety nets and mothers' modest reports of hardship (despite fairly low median income in households supporting an average of six individuals), economic hardship may not be a particularly salient challenge for children's educational adjustment. Developmental considerations also may play a role here. As children in middle childhood spend more time in the home setting relative to youth in adolescence (Shanahan et al. 2007b), and in this sample they also spent their school days with children in similar economic circumstances, this younger age group may be less aware of or affected by the economic hardship experienced in their homes. Notably, much of the research on the family stress model with Latinxs focuses on families with adolescents (e.g., Delgado et al. 2013; White

et al. 2015), who may be more cognizant of their families' economic hardships to the extent that they have more opportunities to compare and contrast their situations to those of their peers. Along these lines, Delgado et al. (2013) showed that *adolescents' perceptions* of their families' economic hardship mediated parents' reports of hardship to family functioning and adolescents' adjustment. Thus, one direction of future research may be to assess the degree to which children perceive economic constraints or stressors within the family context and the role of these perceptions in their educational adjustment.

Turning to our second indicator of culturally based stress, mothers' experiences of discrimination, our findings revealed inconsistencies across the bivariate and multivariate analyses. At the bivariate level, mothers' reports of discrimination were associated with greater economic hardship and more mother–child conflict for older and younger siblings, consistent with the premises of the family stress model (Conger et al. 2012; Lorenzo-Blanco et al. 2012). In the multivariate model, discrimination was associated with more positive socioemotional competencies for both older and younger siblings and less aggressive/oppositional behavior for younger siblings. Although mothers who experience more frequent discrimination may engage in socialization strategies (e.g., preparation for bias, cultural socialization; Hagelskamp and Hughes 2014) that have been demonstrated to promote positive adjustment among children (Umaña-Taylor and Hill 2020), replication is essential, as it is also likely that these findings are spurious. Further, we know little about the potential underlying *mechanisms* linking Latinx mothers' experiences of discrimination to their children's adjustment in middle childhood, highlighting an important direction of future work.

5. Limitations and Future Directions

This study has several limitations that guide future research. Foremost, our study drew on cross-sectional data and future longitudinal work is needed to test for potential direct and indirect mechanisms using multiple time points and accounting for prior levels of children's adjustment. Although our findings highlight important contextual and parenting characteristics that are linked to children's educational adjustment, the direction of the effects cannot be determined. Second, because our study required the participation of a primary caregiver, and the majority were biological mothers, future work should consider how multiple caregivers' cultural assets and challenges are linked to children's adjustment. This should include father figures and other primary caregivers in the lives of Latinx children (e.g., grandparents, aunts and uncles, older siblings; Updegraff and Perez-Brena). Third, we controlled for mothers' nativity as a proxy for their exposure to anti-immigrant experiences. The associations between mothers' nativity and children's educational adjustment suggested, however, that mothers' immigrant status (i.e., being born outside of the U.S.) was related to more positive child adaptation in school, aligning with findings regarding the immigrant paradox (Gonzales et al. 2009). Thus, it will be important to directly measure the extent to which parents have been the target of anti-immigrant actions and policies in future studies, given the salience and frequency of such experiences for Latinx families in the 21st century (Roche et al. 2018; Torres et al. 2018). Fourth, we drew on mothers' reports of parent–child relationship qualities, and the next steps should examine how children perceive these relationships as well as use observational ratings of parent–youth relationships (e.g., Domenech Rodriguez et al. 2009). Finally, our analytic sample of 348 children from 173 families was large for a primary data collection effort, but nevertheless underpowered for a complex model testing moderation by birth order and gender. On one hand, this suggests that the associations that emerged are likely quite robust; on the other hand, more research with larger samples is needed, as some of our null findings could be due to limited power to detect significant associations.

These limitations withstanding, this study has a number of strengths and makes several important contributions to the field. For instance, a feature of our study that strengthens its external validity is its multiple-informant design, in which we gathered data from teachers to assess children's educational adjustment, rather than relying on mothers'

reports; this enables us to rule out common source variance as an explanation for our results. Our study also provided important evidence regarding the promotive function of family cohesion for the educational adjustment of Latinx children. Among the culturally based assets and challenges examined, *family cohesion* was a particularly important familial asset in middle childhood that was associated with more positive mother–child relationship dynamics and, in turn, with more optimal adjustment at school. The pattern of findings was particularly strong for younger siblings, who are early in their years of formal schooling—a time when establishing a foundation for future educational success has far reaching benefits (Magnuson et al. 2016; Rabiner et al. 2016).

More generally, our study underscores the interconnections between family and school experiences and suggests that prevention and intervention programs that focus on these intersecting contexts have the potential to benefit Latinx youth. As one example, Gonzales et al. (2012) demonstrated the efficacy of a school-based, parent–adolescent-focused prevention program (i.e., *Bridges to High School Program/Projecto Puentes a la Secundaria*) designed to increase school engagement and reduce risk behaviors by strengthening parenting, adolescent coping, school engagement, and family cohesion among Mexican-origin families in urban school settings. Investing in programs that build family–school connections and enhance family-based supports *prior* to adolescence (and the onset of significant behavioral difficulties for some youth) may be an important next step in prevention research to capitalize on a developmental period when children spend the majority of their time in family and school settings.

6. Conclusions

In the 21st century, Latinx families account for more than half of the growth in the U.S. population and represent more than one-fourth of the school-age population. One key contribution of our research, and a critical approach to studying Latinx families in the 21st century, is a balanced perspective that recognizes the strengths *and* challenges of Latinx families in the U.S. today. In considering multiple assets and challenges, our work underscored *family cohesion* as a salient cultural factor in middle childhood that is linked to more positive family dynamics and, in turn, more positive adaptation in the school setting. Prevention programs that build on these familial strengths have the potential to support children's successful transition to and adjustment in their early years of formal schooling. A particularly important contribution was our focus on *middle childhood*, a period of parenting that has been relatively neglected in research on Latinx parenting/parent–child relationships. Middle childhood is a potentially ideal time to intervene with efficacious prevention programming, as it could help set children on a more positive trajectory as they enter adolescence and aid in addressing the considerable disparities in high school and postsecondary education for ethnic–racial minoritized and low-income youth. The potentially different pattern of findings that emerged in this middle childhood sample, compared to a body of research on parenting among Latinx adolescents, underscores the importance of ensuring that research on Latinx families spans children's development from early childhood to young adulthood to better understand the unique resources and challenges that characterize each developmental period. Continuing to build a foundation of knowledge on Latinx families will be essential to informing culturally responsive prevention and intervention programming in the 21st century.

Author Contributions: Conceptualization, K.A.U. and A.J.U.-T.; methodology, K.A.U. and A.J.U.-T.; formal analysis, D.S. and K.M.C.; writing—original draft preparation, K.A.U., A.J.U.-T., D.S., and K.M.C.; writing—review and editing, K.A.U., A.J.U.-T., D.S., and K.M.C.; visualization, D.S. and K.M.C.; supervision, K.A.U. and A.J.U.-T.; project administration, K.A.U. and A.J.U.-T.; funding acquisition, K.A.U. and A.J.U.-T. All authors have read and agreed to the published version of the manuscript.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki, and approved by the Institutional Review Boards of Arizona State University and the Pennsylvania State University (Title: Innovative Family Prevention with Latinos; protocol #00006528 and STUDY00010473, respectively; 31 August 2018) for studies involving humans.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study and assent was obtained for all children under the age of 18.

Data Availability Statement: Contact the corresponding author regarding requests for data.

Conflicts of Interest: The authors declare no conflict of interest.

References

American Psychological Association. 2012. Presidential Task Force on Educational Disparities. In *Ethnic and Racial Disparities in Education: Psychology's Contributions to Understanding and Reducing Disparities*. Washington, DC: American Psychological Association, Available online: http://www.apa.org/ed/resources/racial-disparities.aspx (accessed on 15 September 2021).

Ayón, Cecilia, and San Juanita Garcia. 2019. Latino immigrant parents' experiences with discrimination: Implications for parenting in a hostile immigration policy context. *Journal of Family Issues* 40: 805–31. [CrossRef]

Bámaca-Colbert, Mayra Y., Melinda Gonzales-Backen, Carolyn S. Henry, Peter S. Y. Km, Martha Z. Roblyer, Scott W. Plunkett, and Tovah Sands. 2018. Family profiles of cohesion and parenting practices and Latino youth adjustment. *Family Process* 57: 719–36. [CrossRef]

Benner, Aprile D., and Sandra Graham. 2009. The transition to high school as a developmental process among multiethnic urban youth. *Child Development* 80: 356–76. [CrossRef]

Cahill, Karina M., Kimberly A. Updegraff, José M. Causadias, and Kevin M. Korous. Forthcoming. Familism values and adjustment among Hispanic/Latino individuals: A systematic review and meta-analysis. *Psychological Bulletin*.

Calzada, Esther J., Keng Yen Huang, Catherine Anicama, Yenny Fernandez, and Laurie M. Brotman. 2012. Test of a cultural framework of parenting with Latino families of young children. *Cultural Diversity and Ethnic Minority Psychology* 18: 285–96. [CrossRef] [PubMed]

Campos, Belinda, Christine D. Schetter, Cleopatra M. Abdou, Calvin J. Hobel, Laura M. Glynn, and Curt A. Sandman. 2008. Familialism, social support, and stress: Positive implications for pregnant Latinas. *Cultural Diversity and Ethnic Minority Psychology* 14: 155–62. [CrossRef]

Child Trends. 2018. Racial and Ethnic Composition of the Child Population. Available online: https://www.childtrends.org/indicators/racial-and-ethnic-composition-of-the-child-population (accessed on 1 October 2021).

Cohen, Jacob. 1992. A power primer. *Psychological Bulletin* 112: 155–59. [CrossRef]

Colby, Sandra L., and Jennifer M. Ortman. 2015. *Projections of the Size and Composition of the U.S. Population: 2014 to 2060*; Current Population Reports, P25-1143; Suitland: U.S. Census Bureau. Available online: https://www.census.gov/content/dam/Census/library/publications/2015/demo/p25-1143.pdf (accessed on 7 September 2021).

Collins, W. Andrew, and Stephanie D. Madsen. 2019. Parenting during middle childhood. In *Handbook of Parenting: Children and Parenting*. Edited by Marc H. Bornstein. Mahwah: Lawrence Erlbaum Associates Publishers, pp. 73–101.

Conduct Problems Prevention Research Group. 1999. Initial impact of the Fast Track prevention trial for conduct problems: I. The high-risk sample. *Journal of Consulting and Clinical Psychology* 67: 631–47. [CrossRef]

Conger, Rand D., Glen H. Elder, Fredrick O. Lorenz, Ronald L. Simons, and Les B. Whitbeck. 1994. *Families in Troubled Times: Adapting to Change in Rural America*. Hawthorne: Aldine de Gruyter.

Conger, Rand D., Hairong Song, Gary D. Stockdale, Emilio Ferrer, Keith F. Widaman, and Ana M. Cauce. 2012. Resilience and vulnerability of Mexican origin youth and their families: A test of a culturally informed model of family economic stress. In *Adolescence and beyond: Family Processes and Development*. Edited by Patricia K. Kerig, Marc S. Schulz and Stuart T. Hauser. Oxford: Oxford University Press, pp. 268–86. [CrossRef]

Daniels, Denise, and Robert Plomin. 1985. Differential experience of siblings in the same family. *Developmental Psychology* 21: 747–60. [CrossRef]

Delgado, Melissa Y., Sarah E. Killoren, and Kimberly A. Updegraff. 2013. Economic hardship and Mexican-origin adolescents' adjustment: Examining perceptions of hardship and parent-adolescent relationship quality. *Journal of Family Psychology* 27: 827–37. [CrossRef] [PubMed]

Derlan, Chelsea, Adriana J. Umaña-Taylor, Kimberly A. Updegraff, Laudan B. Jahromi, and Stefanie Fuentes. 2019. A prospective test of the family stress model with Mexican-origin adolescent mothers. *Journal of Latinx Psychology* 7: 105–22. [CrossRef]

Domenech Rodriguez, Melanie M., Melissa R. Donovick, and Susan L. Crowley. 2009. Parenting styles in a cultural context: Observations of "protective parenting" in first-generation Latinos. *Family Process* 48: 195–210. [CrossRef]

Flores, Antonio. 2017. How the U.S. Hispanic population is changing. *Pew Research Center*. September 18. Available online: https://www.pewresearch.org/fact-tank/2017/09/18/how-the-u-s-hispanic-population-is-changing/ (accessed on 7 September 2021).

Fuligni, Andrew J., and Allison S. Fuligni. 2007. Immigrant families and the educational development of their children. In *Immigrant Families in Contemporary Society*. Edited by Jennifer E. Lansford, Kirby Deater-Deckard and Marc H. Bornstein. New York: Guilford Press, pp. 231–49.

García Coll, Cynthia, and Laura A. Szalacha. 2004. The multiple contexts of middle childhood. *The Future of Children* 14: 81–97. [CrossRef]

García Coll, Cynthia, Keith Crnic, Gontran Lamberty, Barbara H. Wasik, Renee Jenkins, Heidi V. García, and Harriet P. McAdoo. 1996. An integrative model for the study of developmental competencies in minority children. *Child Development* 67: 1891–914. [CrossRef]

Gonzales, Nancy A., Fairlee C. Fabrett, and George P. Knight. 2009. Acculturation, enculturation, and the psychosocial adaptation of Latino youth. In *Handbook of U.S. Latino Psychology: Developmental and Community-Based Perspectives*. Edited by Francisco A. Villarruel, Gustavo Carlo, Josefina M. Grau, Margarita Azmitia, Natasha Cabrera and T. Jaime Chahin. Thousand Oaks: Sage Publications, pp. 115–34.

Gonzales, Nancy A., Larry E. Dumka, Roger E. Millsap, Amanda Gottschall, Darya B. McCLain, Jessica J. Wong, Miguelina German, Anne M. Mauricio, Lorey Wheeler, Francesca D. Carpentier, and et al. 2012. Randomized trial of a broad preventive intervention for Mexican American adolescents. *Journal of Consulting and Clinical Psychology* 80: 1–16. [CrossRef] [PubMed]

Hagelskamp, Carolin, and Diane L. Hughes. 2014. Workplace discrimination predicting racial/ethnic socialization across African American, Latino, and Chinese families. *Cultural Diversity and Ethnic Minority Psychology* 20: 550–60. [CrossRef] [PubMed]

Harwood, Robin L., Birgit Leyendecker, Vivian J. Carlson, Marysol Asencio, and Amy Miller. 2002. Parenting among Latino families in the U.S. In *Handbook of Parenting (Vol 4): Social Conditions and Applied Parenting*, 2nd ed. Edited by Marc H. Bornstein. Mahwah: Erlbaum, pp. 21–46.

Howe, George W., Robert D. Caplan, David Foster, Mindy Lockshin, and Claire McGrath. 1995. When couples cope with job loss: A strategy for developing and testing preventive interventions. In *Job Stress Interventions*. Edited by Lawrence R. Murphy and Joseph J. Hurrell. Washington, DC: American Psychological Association, pp. 139–57. [CrossRef]

Hussar, Bill, Jijun Zhang, Ssrah Hein, Ke Wang, Ashley Roberts, Jiashan Cui, Mary Smith, Farrah B. Mann, Amy Barmer, and Rita Dilig. 2020. *The Condition of Education 2020 (NCES 2020-144)*; Washington, DC: U.S. Department of Education, National Center for Education Statistics. Available online: https://nces.ed.gov/pubs2020/2020144.pdf (accessed on 7 September 2021).

Kessler, Ronald C., J. Blake Turner, and James S. House. 1988. Effects of unemployment on health in a community survey: Main, modifying, and mediating effects. *Journal of Social Issues* 44: 69–85. [CrossRef]

Khaleque, Abdul. 2013. Perceived parental warmth, and children's psychological adjustment, and personality dispositions: A meta-analysis. *Journal of Child and Family Studies* 22: 297–306. [CrossRef]

Knight, George P., Lynn M. Virdin, and Mark Roosa. 1994. Socialization and Family Correlates of Mental Health Outcomes among Hispanic and Anglo American Children: Consideration of Cross-Ethnic Scalar Equivalence. *Child Development* 65: 212–24. [CrossRef]

Knight, George P., Mark W. Roosa, and Adriana J. Umaña-Taylor. 2009. *Methodological Challenges in Studying Ethnic Minority or Economically Disadvantaged Populations*. Washington, DC: American Psychological Association.

Knight, George P., Nancy A. Gonzales, Delia S. Saenz, Darya D. Bonds, Miguelina German, Julianna Deardorff, Mark W. Roosa, and Kimberly A. Updegraff. 2010. The Mexican American cultural values scales for adolescents and adults. *Journal of Early Adolescence* 30: 444–48. [CrossRef] [PubMed]

Krogstad, Jens M. 2016. 5 facts about Latinos and education. *Pew Research Center*. July 28. Available online: https://www.pewresearch.org/fact-tank/2016/07/28/5-facts-about-latinos-and-education/ (accessed on 7 September 2021).

Krogstad, Jens M. 2019. Reflecting a demographic shift, 109 U.S. counties have become majority nonwhite since 2000. *Pew Research Center*. August 21. Available online: https://www.pewresearch.org/fact-tank/2019/08/21/u-s-counties-majority-nonwhite/ (accessed on 9 September 2021).

Krogstad, Jens M., and Luis Noe-Bustamante. 2021. Key facts about U.S. Latinos for National Hispanic Heritage Month. *Pew Research Center*. September 9. Available online: https://www.pewresearch.org/fact-tank/2021/09/09/key-facts-about-u-s-latinos-for-national-hispanic-heritage-month/ (accessed on 7 September 2021).

Krueger, Patrick M., Ilham A. Dehry, and Virginia W. Chang. 2019. The Economic value of education for longer lives and reduced disability. *The Milbank quarterly* 97: 48–73. [CrossRef] [PubMed]

Kuhlberg, Jill A., Juan B. Peña, and Luis H. Zayas. 2010. Familism, parent-adolescent conflict, self-esteem, internalizing behaviors and suicide attempts among adolescent Latinas. *Child Psychiatry & Human Development* 41: 425–40. [CrossRef]

Lareau, Annette. 2011. *Unequal Childhoods: Race, Class, and Family Life*, 2nd ed. Berkeley: University of California Press.

Lee, Jungeun O., Rick Kosterman, Tiffany M. Jones, Todd I. Herrenkohl, Isaac C. Rhew, Richard F. Catalano, and J. David Hawkins. 2016. Mechanisms linking high school graduation to health disparities in young adulthood: A longitudinal analysis of the role of health behaviors, psychosocial stressors, and health insurance. *Public Health* 139: 61–69. [CrossRef]

Leidy, Melinda S., Nancy G. Guerra, and Rosa I. Toro. 2010. Positive parenting, family cohesion, and child social competence among immigrant Latino families. *Journal of Family Psychology* 24: 252–60. [CrossRef] [PubMed]

Li, Yong, and Lynn A. Warner. 2015. Parent–adolescent conflict, family cohesion, and self-esteem among Hispanic adolescents in immigrant families: A comparative analysis. *Family Relations: An Interdisciplinary Journal of Applied Family Studies* 64: 579–91. [CrossRef]

Lorenzo-Blanco, Elma I., Jennifer B. Unger, Lourdes Baezconde-Garbanati, Anamara Ritt-Olson, and Daniel Soto. 2012. Acculturation, enculturation, and symptoms of depression in Hispanic youth: The roles of gender, Hispanic cultural values, and family functioning. *Journal of Youth and Adolescence* 41: 1350–65. [CrossRef]

MacKinnon, David P., Chondra M. Lockwood, and Jason Williams. 2004. Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate Behavioral Research* 39: 99–128. [CrossRef] [PubMed]

Magnuson, Katherine, Greg J. Duncan, Kenneth T. H. Lee, and Molly W. Metzger. 2016. Early school adjustment and educational attainment. *American Educational Research Journal* 53: 1198–228. [CrossRef]

McHale, Susan M., Ann C. Crouter, and Shawn D. Whiteman. 2003. The family contexts of gender development in childhood and adolescence. *Social Development* 12: 125–48. [CrossRef]

McHale, Susan M., Kimberly A. Updegraff, Lilly Shanahan, Ann C. Crouter, and Sarah E. Killoren. 2005. Culture, gender, and family dynamics: Differential treatment in Mexican American families. *Journal of Marriage and Family* 67: 1259–74. [CrossRef]

Molina, Kristine M., Margarita Alegria, and Ramaswami Mahalingam. 2013. A multiple-group path analysis of the role of everyday discrimination on self-rated physical health among Latina/os in the USA. *Annals of Behavioral Medicine* 45: 33–44. [CrossRef]

Morcillo, Carmen, Cristiane S. Duarte, Sa Shen, Carlos Blanco, Glorisa Canino, and Hector R. Bird. 2011. Parental familism and antisocial behaviors: Development, gender, and potential mechanisms. *Journal of the American Academy of Child & Adolescent Psychiatry* 50: 471–79. [CrossRef]

Muthén, Linda K., and Bengt O. Muthén. 1998–2018. *Mplus User's Guide. Eighth Edition*. Los Angeles: Muthén and Muthén.

National Center for Education Statistics. 2021. *Annual Report: Employment and Unemployment Rates by Educational Attainment*; Washington, DC: Institute of Education Sciences, National Center for Education Statistics.

Olson, David H., Joyce Portner, and Richard Q. Bell. 1982. *FACES II: Family Adaptability and Cohesion Evaluation Scales*. St. Paul: Family Social Science, University of Minnesota.

Padilla, Jenny, Susan M. McHale, Kimberly A. Updegraff, and Adriana J. Umaña-Taylor. 2016. Mexican-origin parents' differential treatment and siblings' adjustment from adolescence to young adulthood. *Journal of Family Psychology* 30: 955–65. [CrossRef]

Parra Cardona, Jose R., Melanie Domenech-Rodriguez, Marion Forgatch, Cris Sullivan, Deborah Bybee, Kendal Holtrop, Ana R. Escobar-Chew, Lisa Tams, Brian Dates, and Guillermo Bernal. 2012. Culturally adapting an evidence-based parenting intervention for Latino immigrants: The need to integrate fidelity and cultural relevance. *Family Process* 51: 56–72. [CrossRef]

Pasch, Lauri A., Julianna Deardorff, Jeanne M. Tschann, Elena Flores, Carlos Penilla, and Philip Pantoja. 2006. Acculturation, parent-adolescent conflict, and adolescent adjustment in Mexican American families. *Family Process* 45: 75–86. [CrossRef] [PubMed]

Perez-Brena, Norma J., Deborah Rivas-Drake, Russell B. Toomey, and Adriana J. Umaña-Taylor. 2018. Contributions of the integrative model for the study of developmental competencies in minority children: What have we learned about adaptive culture? *The American psychologist* 73: 713–26. [CrossRef] [PubMed]

Rabiner, David L., Jennifer Godwin, Kenneth A. Dodge, and Amanda Sullivan. 2016. Predicting academic achievement and attainment: The contribution of early academic skills, attention difficulties, and social competence. *School Psychology Review* 45: 250–67. [CrossRef]

Reeve, Bryce B., Gordon Willis, Salma N. Shariff-Marco, Nancy Breen, David R. Williams, Gilbert C. Gee, Margarita Alegría, David T. Takeuchi, Martha Stapleton, Kerry Y. Levin, and et al. 2011. Comparing cognitive interviewing and psychometric methods to evaluate a racial/ethnic discrimination scale. *Field Methods* 23: 397–419. [CrossRef] [PubMed]

Rescorla, Leslie A., Thomas M. Achenbach, Masha Y. Ivanova, Lori V. Turner, Robert R. Althoff, Hervõr A. Árnadóttir, Alma Au, Monica Bellina, J. C. Caldas, Yi-Chuen Chen, and et al. 2016. Problems and adaptive functioning reported by adults in 17 societies. *International Perspectives in Psychology: Research, Practice, Consultation* 5: 91–109. [CrossRef]

Roche, Kathleen M., Elizabeth Vaquera, Rebecca M.B. White, and Maria I. Rivera. 2018. Impacts of Immigration Actions and News and the Psychological Distress of U.S. Latino Parents Raising Adolescents. *The Journal of Adolescent Health* 62: 525–31. [CrossRef]

Roosa, Mark W., Larry Dumka, and Jenn-Yun Tein. 1996. Family characteristics as mediators of the influence of problem drinking and multiple risk status on child mental health. *American Journal of Community Psychology* 24: 607–24. [CrossRef]

Santesteban-Echarri, Olga, María A. Ramos-Olazagasti, Ruth E. Eisenberg, Chiaying Wei, Héctor R. Bird, Glorisa Canino, and Cristiane S. Duarte. 2017. Parental warmth and psychiatric disorders among Puerto Rican children in two different socio-cultural contexts. *Journal of Psychiatric Research* 87: 30–36. [CrossRef] [PubMed]

Santos, Carlos E., Cecilia Menjívar, Rachel A. VanDaalen, Olga Kornienko, Kimberly A. Updegraff, and Samantha Cruz. 2018. Awareness of immigration law SB1070 predicts classroom behavioral problems among Latino youth during early adolescence. *Ethnic and Racial Studies* 41: 1672–90. [CrossRef]

Satorra, Albert, and Peter M. Bentler. 2001. A scaled difference chi-square test statistic for moment structure analysis. *Psychometrika* 66: 507–14. [CrossRef]

Schroeder, Kingsley M., and Mayra Y. Bámaca-Colbert. 2019. Cultural underpinnings of gender development: Studying gender among children of immigrants. *Child Development* 90: 1005–15. [CrossRef] [PubMed]

Schwarz, J. Conrad, Marianne L. Barton-Henry, and Thomas Pruzinsky. 1985. Assessing child-rearing behaviors: A comparison of ratings made by mother, father, child, and sibling on the CRPBI. *Child Development* 56: 462–79. [CrossRef]

Shanahan, Lilly, Susan M. McHale, Dwayne W. Osgood, and Ann C. Crouter. 2007a. Conflict frequency with mothers and fathers from middle childhood to late adolescence: Within- and between-families comparisons. *Developmental Psychology* 43: 539–50. [CrossRef]

Shanahan, Lilly, Susan M. McHale, Ann C. Crouter, and Dwayne W. Osgood. 2007b. Warmth with mothers and fathers from middle childhood to late adolescence: Within- and between-families comparisons. *Developmental Psychology* 43: 551–63. [CrossRef]

Shrider, Emily A., Melissa Kollar, Frances Chen, and Jessica Semega. 2021. *Income and Poverty in the United States: 2020. U.S. Census Bureau. Current Population Reports, P60-273*; Washington, DC: U.S. Government Publishing Office.

Smetana, Judith G. 1988. Adolescents' and parents' conceptions of parental authority. *Child Development* 59: 321–35. [CrossRef]

Stein, Gabriela L., Alexandra M. Cupito, Julia L. Mendez, Juan Prandoni, Nadia Huq, and Diana Westerberg. 2014. Familism through a developmental lens. *Journal of Latina/o Psychology* 2: 224–50. [CrossRef]

Steinberg, Lawrence. 2001. We know some things: Parent–adolescent relationships in retrospect and prospect. *Journal of Research on Adolescence* 11: 1–19. [CrossRef]

Stepler, Renee. 2016. Hispanic, Black Parents See College Degree as Key for Children's Success. *Pew Research Center*. February 24. Available online: https://www.pewresearch.org/fact-tank/2016/02/24/hispanic-black-parents-see-college-degree-as-key-for-childrens-success/ (accessed on 10 September 2021).

Suarez-Orozco, Carola, Franciso X. Gaytán, Hee J. Bang, Juliana Pakes, Erin O'Connor, and Jean Rhodes. 2010. Academic trajectories of newcomer immigrant youth. *Developmental Psychology* 46: 602–18. [CrossRef] [PubMed]

Taylor, Zoe E., Rand D. Conger, Richard W. Robins, and Keith F. Widaman. 2015. Parenting practices and perceived social support: Longitudinal relations with the social competence of Mexican-origin children. *Journal of Latina/o Psychology* 3: 193–208. [CrossRef]

Toomey, Russell, Adriana J. Umaña-Taylor, David Williams, Kimberly A. Updegraff, and Laudan B. Jahromi. 2014. The impact of Arizona's immigration law on health and service utilization of Mexican-origin teen mothers. *American Journal of Public Health* 104: S28–S34. [CrossRef] [PubMed]

Toossi, Mitra. 2016. A look at the future of the U.S. labor force To 2060. U.S. Bureau of Labor Statistics. Available online: https://www.bls.gov/spotlight/2016/a-look-at-the-future-of-the-us-labor-force-to-2060/pdf/a-look-at-the-future-of-the-us-labor-force-to-2060.pdf (accessed on 20 September 2021).

Torres, Stephanie A., Catherine D. Santiago, Katherine K. Walts, and Maryse H. Richards. 2018. Immigration policy, practices, and procedures: The impact on the mental health of Mexican and Central American youth and families. *The American Psychologist* 73: 843–54. [CrossRef] [PubMed]

Umaña-Taylor, Adriana J., and Nancy E. Hill. 2020. Ethnic-racial socialization in the family: A decade's advance on precursors and outcomes. *Journal of Marriage and Family* 82: 244–71. [CrossRef]

Umaña-Taylor, Adriana J., and Kimberly A. Updegraff. 2013. Latino families in the United States. In *Handbook of Marriage and Family*, 3rd ed. Edited by Gary W. Peterson and Kevin R. Bush. New York: Springer, pp. 723–47.

Updegraff, Kimberly A., and Norma J. Perez-Brena. Forthcoming. Studying families as systems in adolescence and early adulthood. In *Handbook of Adolescent and Young Adult Development*. Edited by Lisa Crockett, Gustavo Carlo and John Schulenberg. Washington, DC: American Psychological Association.

Updegraff, Kimberly A., Susan M. McHale, Shawn D. Whiteman, Shawna M. Thayer, and Melissa Y. Delgado. 2005. Adolescents' sibling relationships in Mexican American families: Exploring the role of familism. *Journal of Family Psychology* 19: 512–22. [CrossRef] [PubMed]

Updegraff, Kimberly A., Melissa Y. Delgado, and Lorey A. Wheeler. 2009. Exploring mothers' and fathers' relationships with sons versus daughters: Links to adjustment in Mexican immigrant families. *Sex Roles* 60: 559–74. [CrossRef] [PubMed]

Updegraff, Kimberly A., Susan M. McHale, Katharine H. Zeiders, Adriana J. Umaña-Taylor, Norna Perez-Brena, Lorey A. Wheeler, and Sue A. Rodríguez De Jesús. 2014. Mexican American Adolescents' Gender Role Attitude Development: The Role of Adolescents' Gender and Nativity and Parents' Gender Role Attitudes. *Journal of Youth and Adolescence* 43: 2041–53. [CrossRef]

Van Hook, Jennifer, and Jennifer E. Glick. 2020. Spanning Borders, Cultures, and Generations: A Decade of Research on Immigrant Families. *Journal of Marriage and Families* 82: 224–43. [CrossRef]

Votruba-Drzal, Elizabeth. 2006. Economic disparities in middle childhood development: Does income matter? *Developmental Psychology* 42: 1154–67. [CrossRef]

Werthamer-Larsson, Lisa, Sheppard Kellam, and Leonard Wheeler. 1991. Effect of first-grade classroom environment on shy behavior, aggressive behavior, and concentration problems. *American Journal of Community Psychology* 19: 585–602. [CrossRef] [PubMed]

Weymouth, Bridget B., Cheryl Buehler, Nan Zhou, and Robert A. Henson. 2016. A meta-analysis of parent–adolescent conflict: Disagreement, hostility, and youth maladjustment. *Journal of Family Theory & Review* 8: 95–112. [CrossRef]

Wheeler, Lorey A., Katharine H. Zeiders, Kimberly A. Updegraff, Adriana J. Umaña-Taylor, Sue A. Rodríguez De Jesús, and Norma J. Perez-Brena. 2017. Mexican-origin youth's risk behavior from adolescence to young adulthood: The role of familism values. *Developmental Psychology* 53: 126–37. [CrossRef] [PubMed]

White, Rebecca M. B., Yu Liu, Rajni L. Nair, and Jenn-Yun Tein. 2015. Longitudinal and integrative tests of family stress model effects on Mexican origin adolescents. *Developmental Psychology* 51: 649–62. [CrossRef]

Whiteman, Shawn D., Susan M. McHale, and Ann C. Crouter. 2003. What parents learn from experience: The first child as a first draft? *Journal of Marriage and Family* 65: 608–21. [CrossRef]

Williams, David R., Yan Yu, James S. Jackson, and Norman B. Anderson. 1997. Racial differences in physical and mental health: Socioeconomic status, stress, and discrimination. *Journal of Health Psychology* 2: 335–51. [CrossRef] [PubMed]

Williams, David R., Hector M. González, Stacey Williams, Selina A. Mohammed, Hashim Moomal, and Dan J. Stein. 2008. Perceived discrimination, race and health in South Africa: Findings from the South Africa Stress and Health Study. *Social Science and Medicine* 67: 441–52. [CrossRef]

Article

Culture and Social Change in Mothers' and Fathers' Individualism, Collectivism and Parenting Attitudes

Jennifer E. Lansford, Susannah Zietz, Suha M. Al-Hassan, Dario Bacchini, Marc H. Bornstein and Lei Chang et al.

1   Center for Child and Family Policy, Duke University, Durham, NC 27708, USA; susannah.zietz@duke.edu (S.Z.); dodge@duke.edu (K.A.D.); askinner@duke.edu (A.T.S.)
2   Department of Special Education, Hashemite University, Zarqa 13110, Jordan; suha-al@hu.edu.jo
3   Department of Humanistic Studies, University of Naples "Federico II", 80127 Naples, Italy; dario.bacchini@unina.it
4   *Eunice Kennedy Shriver* National Institute of Child Health and Human Development, Bethesda, MD 20810, USA; marc.h.bornstein@gmail.com
5   UNICEF, New York, NY 10001, USA
6   Institute for Fiscal Studies, London WC2R 2PP, UK
7   Department of Psychology, University of Macau, Macau 999078, China; chang@um.edu.mo
8   Department of Psychological and Brain Sciences, University of Massachusetts, Amherst, MA 01002, USA; kdeaterdeck@umass.edu
9   Department of Psychology, Università di Roma "La Sapienza", 00017 Rome, Italy; laura.digiunta@uniroma1.it (L.D.G.); concetta.pastorelli@uniroma1.it (C.P.)
10   Centre for Child and Youth Studies, University West, 46131 Trollhättan, Sweden; sevtap.gurdal@hv.se (S.G.); emma.sorbring@hv.se (E.S.)
11   Maternal and Child Health, School of Public Health and Management, Chongqing Medical University, Chongqing 400016, China; liuqin@cqmu.edu.cn
12   Global Health Research Center, Duke Kunshan University, Kunshan 215300, China; qian.long@dukekunshan.edu.cn
13   Department of Psychology, Maseno University, Maseno 879-6112, Kenya; pauloburu@maseno.ac.ke
14   Peace Culture Foundation, Chiang Mai 50000, Thailand; sombat.tapanya@gmail.com
15   Department of Psychology, Temple University, Philadelphia, PA 19019, USA; lds@temple.edu
16   Department of Psychology, King Abdulaziz University, Jeddah 22230, Saudi Arabia
17   Department of Psychology, Universidad de San Buenaventura, Medellín 050001, Colombia; lilianauribe74@gmail.com
18   Department of Psychology, Chiang Mai University, Chiang Mai 50000, Thailand; saengduean.y@cmu.ac.th
19   Department of Psychology, Ateneo de Manila University, Quezon City 1008, Philippines; lpalampay@ateneo.edu
*   Correspondence: lansford@duke.edu

Abstract: Cultures and families are not static over time but evolve in response to social transformations, such as changing gender roles, urbanization, globalization, and technology uptake. Historically, individualism and collectivism have been widely used heuristics guiding cross-cultural comparisons, yet these orientations may evolve over time, and individuals within cultures and cultures themselves can have both individualist and collectivist orientations. Historical shifts in parents' attitudes also have occurred within families in several cultures. As a way of understanding mothers' and fathers' individualism, collectivism, and parenting attitudes at this point in history, we examined parents in nine countries that varied widely in country-level individualism rankings. Data included mothers' and fathers' reports (*N* = 1338 families) at three time points in China, Colombia, Italy, Jordan, Kenya, Philippines, Sweden, Thailand, and the United States. More variance was accounted for by within-culture than between-culture factors for parents' individualism, collectivism, progressive parenting attitudes, and authoritarian parenting attitudes, which were predicted by a range of sociodemographic factors that were largely similar for mothers and fathers and across cultural groups. Social changes from the 20th to the 21st century may have contributed to some of the similarities between mothers and fathers and across the nine countries.

Keywords: authoritarian; collectivism; culture; historical perspective; individualism; international; parenting attitudes; social change

1. Introduction

Historically, the individualist versus collectivist distinction has been one of the main organizing frameworks for understanding cultural differences in family life (Hofstede 1980; Kâğıtçıbaşı 1997; Triandis et al. 1986), and parents in some societies have been considered more "progressive" (in terms of holding democratic attitudes about parent–child relationships and believing that children should have more autonomy in decision making in the family) and less authoritarian than others (e.g., Lansford and Bornstein 2011). However, neither cultures nor families are static over time; instead, cultures and families evolve in response to social transformations, such as changing gender roles, urbanization, globalization, and technology uptake (e.g., Bornstein 2019; Chuang et al. 2018; Lansford et al. 2021). Entire cultural orientations can shift, and changing ecological demands resulting from social transformations can alter parents' attitudes if they perceive that new parenting behaviors, child characteristics, or both will be more adaptive in altered social contexts (e.g., Fung et al. 2017). The present study examines the proportions of variance in individualism, collectivism, parents' progressive attitudes, and parents' authoritarian attitudes accounted for by within-culture versus between-culture factors as well as sociodemographic predictors of individualism, collectivism, parents' progressive attitudes, and parents' authoritarian attitudes, recognizing that these constructs are culturally and historically grounded in ways that may change over time.

1.1. Individualism and Collectivism in Historical Perspective

Individualism is characterized by self-reliance and separation from ingroups, whereas collectivism is characterized by the subordination of individual goals for the good of the group, interdependence, and family integrity (Triandis et al. 1986). In his now-classic work, Hofstede (1991) explained that "Individualism stands for a society in which the ties between individuals are loose; everyone is expected to look after himself or herself and his or her immediate family only" whereas "collectivism stands for a society in which people from birth onwards are integrated into strong, cohesive ingroups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty" (pp. 260–61). Kâğıtçıbaşı (1997) traced the history of individualism and collectivism in philosophical and religious thought through the first part of the 20th century, but Hofstede (1980) popularized the idea of individualism and collectivism in psychology. The concepts rapidly gained traction in the 1980s and the 1990s, with a third of psychology studies invoking individualism and collectivism to explain cultural differences by 1994 (Hui and Yee 1994). The introduction to Volume 3 of the 2nd edition of *Handbook of Cross-cultural Psychology* noted that, although the 1st edition of the handbook barely mentioned the individualism/collectivism heuristic, the 2nd edition "makes very clear that individualism/collectivism is currently the favorite heuristic of many cross-cultural social psychologists" (Segall and Kâğıtçıbaşı 1997, p. xxvii).

Despite the importance of the individualism/collectivism heuristic, critics have raised a number of questions about these constructs (Voronov and Singer 2002). For example, even in early studies, scholars recognized as a limitation that individualism and collectivism are rarely measured directly but rather assumed based on nationality or ethnicity (Kâğıtçıbaşı 1997). In a comparison of tendencies to give and expectations to receive resources from others in Greece, Hong Kong, the Netherlands, Turkey, and the United States, the presumed collectivists did not differ from the presumed individualists (Fijneman et al. 1995). Indeed, even early theorists pointed out that individualism and collectivism are not polar opposites but instead can coexist within a cultural group and even within an individual in different situations or at different times (Kâğıtçıbaşı 1997).

Over time, researchers have increasingly emphasized that cultural groups as a whole as well as individuals within cultures embody both individualism and collectivism. For example, in an analysis of change over time in individualism and collectivism in Japan, although Japanese culture as a whole was found to become more individualistic over

time, individuals continued to embrace many attitudes and behaviors characteristic of collectivism (Ogihara 2017). Some of this shift in perspectives in the literature is likely a function of researchers recognizing complexity that had always existed but had been simplified through dichotomously classifying cultural groups as being predominantly individualist or collectivist (e.g., Wong et al. 2018). Yet some of this shift in perspectives is also likely a function of real societal changes over time related to changing gender roles, urbanization, globalization, technology uptake, and other factors (e.g., Chang et al. 2011; Kâğıtçıbaşı 2002).

In addition to being used as heuristics for understanding cultures in general, individualism and collectivism have been conceptualized as affecting how parents in different cultural groups socialize their children. For example, individualism has been theorized to promote socializing children to be self-reliant and independent, whereas collectivism has been theorized to promote socializing children to be obedient and fulfill their duties to their families (Triandis et al. 1990). Individualism and collectivism may affect parents' attitudes regarding appropriate parenting practices and desired child outcomes (He et al. 2021).

At a cultural level, individualism and collectivism have typically been treated as characterizing populations to different degrees (e.g., Hofstede Insights 2021). Individualism and collectivism may be related to a range of sociodemographic characteristics at both cultural and individual levels. Early works suggested that more individualistic countries have higher gross national products than less individualistic countries (Hofstede 1980; Triandis et al. 1988), but more recent work demonstrates that individualism and collectivism may have complex relations with economic factors, such as redistribution of income and entrepreneurship, at a societal level (Binder 2019). Culture-wide indicators of educational attainment do not have clear relations with individualism or collectivism, as countries that perform among the best in the world on international comparisons, such as with the Program for International Student Assessment (U.S. Department of Education 2020), include some of the most collectivist (e.g., China, Singapore) and most individualist (e.g., Canada, Estonia) countries in the world. There is some evidence that as countries' individualism increases over historical time, the average family size decreases (Ogihara 2018). At an individual level, it is also possible that individualism and collectivism are predicted by a range of sociodemographic characteristics of parents, such as age, education, and income. However, research on individual-level predictors of individualism and collectivism is rare.

1.2. Progressive and Authoritarian Parenting Attitudes in Historical Perspective

Along with changes in individualism and collectivism at the cultural level, historical shifts in parents' attitudes and behaviors have also occurred within families (Haring et al. 2019). For example, in previous generations, authoritarian attitudes that emphasized parents' power and children's obligation to obey their parents were more common than they are today (Chang et al. 2011; Chen and Chen 2010). Historical shifts in parents' attitudes in a number of countries have de-emphasized authoritarianism and increasingly emphasized supporting children's autonomy (Bray and Dawes 2016). Parents' behaviors likewise have changed. For example, the percentage of parents who report spanking their children (often considered a behavioral manifestation of authoritarianism) has declined steadily over time in a number of countries and has declined more dramatically in countries that have outlawed corporal punishment (Alampay et al. 2021), a number that has increased exponentially since 1979 when Sweden became the first country to outlaw corporal punishment (www.endcorporalpunishment.org, accessed 26 November 2021).

Large-scale social changes are in part responsible for changes in parents' attitudes (Chang et al. 2011). For example, the Internet and social media have dispersed global perspectives that were not part of traditional family discourse in the era before the Internet (Harrelson-Stephens and Callaway 2014). Parenting has been shaped by exposure to different perspectives via technology, as well as through urbanization, globalization, and

other social forces that change over time (Bray and Dawes 2016), and these exposures may have contributed to melding of individualist and collectivist orientations as well as a shift away from more authoritarian parenting attitudes.

Parents' attitudes are shaped by a number of sociodemographic factors at both a cultural level and an individual level. For example, at a cultural level, some countries emphasize a democratic approach to parenting that encompasses children's rights in the family and society at large (e.g., Sorbring et al. 2021), whereas other countries emphasize more authoritarian parenting attitudes within the context of hierarchical parent–child relationships (Osman et al. 2021), although these culture-level differences in parenting attitudes may be narrowing over time (Chang et al. 2011). At an individual level, parents who are less educated and have a lower income have more authoritarian attitudes than more educated and higher-income parents (Hoff and Laursen 2019; Wamser-Nanney and Campbell 2020), but studies of these sociodemographic predictors of parents' attitudes have largely been conducted in the United States, Canada, and western Europe, so it is not clear whether they generalize to other populations. Child gender, parent age, and family size may also be related to parents' authoritarian attitudes, although findings have been mixed and if differences are found, they are often small in magnitude. The importance parents place on religion has sometimes been found to be related to more authoritarian parenting attitudes (Horwath and Lees 2010), but this finding has been inconsistent (Petro et al. 2018) and in part depends on religious denomination as some denominations espouse more authoritarian beliefs than others (such as the "spare the rod, spoil the child" view in conservative Christian denominations) (Gershoff et al. 1999).

Parents' own sociodemographic characteristics, in particular age and education, might be related not only to their own attitudes but also to the other parents' attitudes. Family Systems Theory (Bowen 1978) and expansions of the theory that focus more on culture (Erdem and Safi 2018), for example, describe how families operate as entire systems in which characteristics of each member influence each of the other members, as well as their relationships with one another. In addition, through assortative mating, parents with particular sociodemographic characteristics often select into relationships with partners who share those characteristics (Rauscher 2020). Once mothers and fathers have formed a partnership, they also influence each other over time (Bornstein et al. 2011b), which could account for how one parent's age and education might be related not only to their own attitudes but also to the other parent's attitudes.

1.3. Mothers and Fathers in Historical Perspective

Historically, in many countries, men were expected to be providers and disciplinarians and women were expected to be children's primary caregivers (Rodrigo et al. 2014). Gender roles have changed over time as a function of many factors, including women's attainment of higher education, greater participation in the paid labor force, and increased access to birth control that has given women more control over family planning (Miho and Thévenon 2020). In some countries, paid paternity leave, in addition to maternity leave, has also encouraged fathers to take more active roles in caring for their children (International Labor Organization 2014). As a result, fathers in many countries spend more time with their children and are more involved parents in the 21st century than they were in the 20th century, although fathers' involvement depends on a number of sociodemographic characteristics, such as parental education (Dotti Sani and Treas 2016).

Changes in parents' roles over historical time may be tied to changes in parenting attitudes. In particular, fathers' traditional disciplinarian role may have been related to holding more authoritarian attitudes, but as fathers increasingly take on caregiving roles, they may become less authoritarian. A study in Sweden, for example, demonstrated a dramatic decrease over the last 50 years of authoritarian parenting of both mothers and fathers and increasing egalitarianism between mothers and fathers (Trifan et al. 2014). Likewise, noticeable cross-century change from gender-differentiated authoritarian to gender-equal progressive parenting roles has been documented in China (Chang et al.

2011). Examining both mothers' and fathers' individualism, collectivism, and parenting attitudes is important in advancing understanding of both parents, especially as fathers have taken on more active parenting roles over historical time (Craig et al. 2014).

1.4. The Present Study

As a way of understanding mothers' and fathers' individualism, collectivism, and parenting attitudes at this point in history, we examined parents in nine countries that varied widely in Hofstede Insights' (2021) individualism rankings: 13 (Colombia), 20 (China and Thailand), 25 (Kenya), 30 (Jordan), 32 (Philippines), 71 (Sweden), 76 (Italy), and 91 (United States). This range enables us to test our research questions in an international sample that varies in individualism at the country level. Hofstede does not provide collectivism rankings, which presumes that individualism and collectivism are reciprocally related.

Our first aim was to understand the proportion of the total variance accounted for by within-culture versus between-culture factors in (1) parental individualism, (2) parental collectivism, (3) parental progressive attitudes, and (4) parental authoritarian attitudes. We hypothesized that a larger proportion of variance would be accounted for by within-culture than between-culture factors, as suggested by prior research on a range of parenting and child development variables (Deater-Deckard et al. 2018) and theories that emphasize that individualism and collectivism can coexist within cultures and within individuals (Kâğıtçıbaşı 1997). Parsing within-culture and between-culture variance in individualism, collectivism, and parenting attitudes is important to understanding the utility of these heuristics as ways of categorizing cultural groups and as a way of understanding the degree to which parents' orientations and attitudes are predicted by both cultural and individual factors. Our second aim was to understand possible sociodemographic predictors of mothers' and fathers' individualism, collectivism, progressive attitudes, and authoritarian attitudes. We hypothesized that parents who are less educated and have lower levels of household income would have less progressive and more authoritarian attitudes than parents who are more educated and have higher levels of household income. We also examined child gender, parent age, number of adults in the household, number of children in the household, and the importance mothers place on religion as predictors. Previous research has been mixed on whether these factors predict parenting attitudes, so we did not make specific directional hypotheses. Examining sociodemographic predictors of individualism, collectivism, and parenting attitudes is important to situate the study of parenting not just in the cultural contexts in which it occurs but also in the individual-level predictors that might be important to understanding culturally grounded orientations and attitudes. Our third aim was to examine whether these predictors significantly differ between mothers and fathers or across cultures. We did not have specific hypotheses about parent gender or cultural differences in predictors but sought to understand generalizability of findings across these dimensions. A key goal in psychological science has become establishing the robustness and replicability of findings (Bonett 2012; Duncan et al. 2014), so testing whether the findings are consistent for mothers and fathers and across cultural groups is important to understanding the generalizability of the findings across diverse populations.

2. Methods

2.1. Participants

Children, mothers, and fathers (*N* = 1338 families) were recruited to participate in the Parenting Across Cultures Project from schools in 12 groups in 9 countries: The families were recruited from Shanghai, China (*n* = 123); Medellín, Colombia (*n* = 108); Naples, Italy (*n* = 102); Rome, Italy (*n* = 111); Zarqa, Jordan (*n* = 114); Kisumu, Kenya (*n* = 100); Manila, Philippines (*n* = 120); Trollhättan/Vänersborg, Sweden (*n* = 129); Chiang Mai, Thailand (*n* = 120); and Durham, North Carolina, United States (*n* = 102 Black, *n* = 99 Latinx, *n* = 110 White). Children brought home letters describing the study, which parents were asked to

sign and return if they were willing to be contacted (in some countries) and contacted by phone to follow up on the letter (in other countries). Children were sampled from schools serving high-, middle-, and low-income families in the approximate proportion to which these income groups were represented in the local population. These sampling procedures resulted in an economically diverse sample that ranged from low income to high income within each site. These are convenience samples, which despite their limitations in terms of population-wide generalizability, have several advantages in longitudinal, developmental research (Jager et al. 2017).

At Time 1 in 2008, children ranged in age from 7 to 10 years (M = 8.30, SD = 0.66; 51% girls). Eighty-two percent of the parents were married. For the analyses reported here, data were available from three annual waves of data collection, spaced at approximately 1-year intervals. At Time 3, 91% of the original families provided data. Compared to the original families who did not provide Time 3 data, families who provided Time 3 data did not differ with respect to demographic variables, including child gender, parents' marital status, and parents' education.

2.2. Procedure and Measures

Measures were translated and back translated and subjected to a process of cultural adaptation to ensure linguistic and conceptual equivalence of the measures (Erkut 2010). After parents provided informed consent and children provided assent, interviews were conducted face-to-face or over the telephone. Participants were given modest compensation for their time.

Table 1 provides means, standard deviations, and sample sizes for each variable in each site. Table 2 provides the bivariate correlations with the Bonferroni-adjusted significance level across the variables used in the model for all countries combined.

Parent individualism and collectivism: When the children were 10 years old, the mothers and fathers completed a measure of individualism and collectivism adapted from Singelis et al. (1995), Tam et al. (2003), and Triandis (1995). The parents rated the importance of different values related to their autonomy and belonging to a social group. The parents were asked whether they 1 = strongly disagree, 2 = disagree, 3 = agree, or 4 = strongly agree with a series of 16 statements, 8 reflecting individualism and 8 reflecting collectivism. Individualism items included "I'd rather depend on myself than others" and "Competition is the law of nature." Collectivism items included "The well-being of my co-workers is important to me" and "To me, pleasure is spending time with others." Items were averaged to create an individualism scale (αs = 0.70 and 0.71 for mothers and fathers, respectively, ranging from 0.52 in Kenya to 0.82 in U.S. Latinx, with 66% over 0.60 for mothers, and from 0.53 in Rome, Italy, to 0.77 in Naples, Italy, with 83% over 0.60 for fathers) and a collectivism scale (αs = 0.65 and 0.69 for mothers and fathers, respectively, ranging from 0.55 in U.S. White to 0.81 in U.S. Latinx, with 83% over 0.60 for mothers, and from 0.59 in Naples, Italy, to 0.80 in China, with 92% over 0.60 for fathers).

225

Table 1. Mean (*SD*) or % by culture.

	China (n = 123)	Colombia (n = 108)	Italy, Naples (n = 102)	Italy, Rome (n = 111)	Jordan (n = 114)	Kenya (n = 100)	Philippines (n = 120)	Sweden (n = 129)	Thailand (n = 120)	U.S.-Black (n = 102)	U.S.-White (n = 110)	U.S.-Latinx (n = 99)
Female	50.4%	52.0%	47.7%	60.0%	49.2%	49.2%	48.8%	52.0%	41.8%	52.5%	55.6%	47.4%
Mother Age	35.420 (3.243)	38.140 (5.621)	40.240 (5.089)	32.450 (6.212)	37.958 (6.194)	37.581 (6.179)	38.080 (4.844)	36.902 (8.413)	40.955 (6.332)	32.863 (5.594)	37.028 (7.799)	36.429 (6.033)
Father Age	37.983 (3.886)	41.175 (5.673)	43.521 (5.252)	39.280 (6.867)	40.206 (7.087)	39.955 (7.276)	40.465 (5.710)	38.836 (8.016)	42.212 (5.807)	35.096 (7.048)	40.750 (8.781)	41.768 (5.502)
Mother Education	13.551 (2.878)	10.140 (4.346)	14.139 (4.067)	10.690 (3.653)	13.608 (4.065)	12.302 (4.761)	13.890 (2.478)	13.647 (2.357)	16.955 (2.843)	9.832 (4.081)	10.639 (5.598)	13.126 (2.179)
Father Education	14.000 (3.066)	10.732 (4.165)	13.753 (4.093)	12.290 (3.605)	13.897 (3.839)	12.761 (4.218)	13.682 (2.957)	13.455 (2.658)	17.286 (3.043)	9.614 (3.904)	9.907 (5.316)	13.241 (3.159)
Household Income	N/A	3.439 (1.995)	5.069 (2.242)	1.387 (1.032)	4.924 (2.970)	4.140 (1.991)	7.750 (2.103)	5.011 (2.447)	8.566 (2.046)	4.081 (1.893)	3.693 (2.979)	2.254 (1.046)
Religious Importance	1.933 (1.140)	4.309 (0.916)	3.284 (1.492)	4.720 (0.621)	4.675 (0.780)	4.548 (0.728)	1.798 (1.040)	4.535 (0.812)	3.648 (1.342)	4.462 (0.951)	4.565 (0.727)	4.811 (0.458)
Number of Adults in Household	2.840 (1.058)	2.300 (0.689)	2.068 (0.661)	2.950 (1.381)	3.733 (2.065)	3.328 (1.508)	1.950 (0.753)	1.755 (0.667)	1.973 (0.515)	2.448 (1.045)	2.537 (1.234)	2.582 (1.214)
Number of Children in Household	1.252 (0.491)	2.020 (0.738)	1.951 (0.809)	3.680 (1.657)	2.775 (1.363)	1.798 (0.839)	2.228 (0.773)	2.412 (1.285)	2.367 (1.042)	2.711 (1.207)	2.139 (1.139)	3.460 (1.530)
Mother Individualism	2.923 (0.388)	2.736 (0.440)	2.564 (0.326)	2.691 (0.468)	2.900 (0.415)	2.614 (0.345)	2.237 (0.352)	2.652 (0.433)	2.482 (0.339)	2.802 (0.528)	2.668 (0.362)	3.105 (0.372)
Father Individualism	2.930 (0.380)	2.795 (0.454)	2.621 (0.322)	2.822 (0.517)	2.907 (0.408)	2.698 (0.350)	2.313 (0.341)	2.703 (0.354)	2.615 (0.350)	2.788 (0.417)	2.666 (0.344)	3.151 (0.446)
Mother Collectivism	3.182 (0.345)	3.286 (0.318)	3.169 (0.285)	3.182 (0.425)	3.421 (0.335)	3.304 (0.322)	3.247 (0.309)	3.364 (0.335)	3.266 (0.292)	3.450 (0.377)	3.438 (0.294)	3.241 (0.336)
Father Collectivism	3.214 (0.361)	3.283 (0.302)	3.151 (0.319)	3.177 (0.442)	3.342 (0.330)	3.312 (0.359)	3.189 (0.338)	3.391 (0.316)	3.237 (0.304)	3.369 (0.379)	3.282 (0.325)	3.242 (0.385)
Mother Progressive Attitudes	3.276 (0.332)	3.107 (0.302)	3.155 (0.274)	2.761 (0.388)	3.103 (0.336)	3.214 (0.361)	3.267 (0.256)	3.065 (0.335)	3.220 (0.287)	3.119 (0.356)	3.145 (0.298)	3.209 (0.387)
Father Progressive Attitudes	3.156 (0.320)	3.032 (0.312)	3.109 (0.289)	2.780 (0.372)	3.014 (0.320)	3.212 (0.326)	3.271 (0.346)	2.958 (0.293)	3.154 (0.309)	2.999 (0.318)	3.096 (0.326)	3.155 (0.354)

Table 1. *Cont.*

	China	Colombia	Italy, Naples	Italy, Rome	Jordan	Kenya	Philippines	Sweden	Thailand	U.S.-Black	U.S.-White	U.S.-Latinx
Mother Authoritarian Attitudes	2.405 (0.374)	2.892 (0.394)	2.578 (0.381)	3.023 (0.379)	2.926 (0.446)	2.701 (0.377)	2.268 (0.328)	2.729 (0.424)	2.136 (0.370)	3.049 (0.382)	2.795 (0.343)	2.705 (0.305)
Father Authoritarian Attitudes	2.390 (0.335)	2.827 (0.435)	2.526 (0.348)	3.016 (0.383)	2.987 (0.407)	2.732 (0.267)	2.321 (0.309)	2.766 (0.377)	2.212 (0.353)	3.008 (0.438)	2.939 (0.412)	2.722 (0.345)

Table 2. Means, standard deviations, and correlations for the entire sample.

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Mother Age	37.04	6.51															
2. Father Age	40.19	6.75	0.71 **														
3. Mother Education	12.67	4.13	0.22 **	0.13 **													
4. Father Education	12.85	4.13	0.22 **	0.13 **	0.72 **												
5. Household Income	4.55	2.94	0.29 **	0.15 **	0.59 **	0.53 **											
6. Religious Importance	3.93	1.41	−0.00	0.05	−0.06 *	−0.04	−0.03										
7. Number of Adults	2.57	1.30	0.01	0.01	0.01	0.03	0.08 **	0.11 **									
8. Number of Children	2.39	1.30	−0.15 **	−0.02	−0.10 **	−0.07 *	−0.05	0.26 **	0.09 **								
9. Mother Individualism	2.70	0.45	−0.10 **	−0.04	−0.07 *	−0.07 *	−0.09 **	0.15 **	0.09 **	0.11 **							
10. Father Individualism	2.77	0.45	−0.07 *	−0.01	−0.01	−0.07 *	−0.08 *	0.15 **	0.09 **	0.10 **	0.35 **						
11. Mother Collectivism	3.29	0.34	0.05	0.02	0.02	0.00	0.07 *	0.17 **	0.04	0.01	0.26 **	0.03					
12. Father Collectivism	3.26	0.36	0.06	0.00	0.07 *	0.06	0.05	0.11 **	0.05	0.05	0.09 **	0.22 **	0.27 **				

Table 2. *Cont.*

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
13. Mother Progressive	3.14	0.35	0.11 **	0.06	0.20 **	0.16 **	0.14 **	−0.17 **	−0.07 *	−0.12 **	0.04	−0.01	0.16 **	0.09 **			
14. Father Progressive	3.08	0.35	0.14 **	0.05	0.14 **	0.14 **	0.08 *	−0.15 **	−0.06 *	−0.09 **	−0.02	−0.02	0.05	0.19 **	0.34 **		
15. Mother Authoritarian	2.68	0.47	−0.19 **	−0.11 **	−0.33 **	−0.24 **	−0.26 **	0.40 **	0.11 **	0.21 **	0.28 **	0.14 **	0.10 **	0.04	−0.18 **	−0.24 **	
16. Father Authoritarian	2.71	0.45	−0.17 **	−0.06	−0.28 **	−0.31 **	−0.30 **	0.41 **	0.08 *	0.20 **	0.19 **	0.25 **	0.09 **	0.09 **	−0.21 **	−0.15 **	0.60 **

Note. M and SD are used to represent the mean and the standard deviation, respectively. * $p < 0.05$. ** $p < 0.01$.

Parental progressive and authoritarian attitudes: The Parental Modernity Index (Schaefer and Edgerton 1985) was completed at child age 8. The mothers and fathers rated each of 30 statements on a 4-point scale (1 = strongly disagree, 4 = strongly agree). Of these, 8 items reflect progressive attitudes (e.g., "Children have a right to their own point of view and should be allowed to express it") and 22 items reflect authoritarian and conformist attitudes (e.g., "The most important thing to teach children is absolute obedience to their parents"). The items were averaged to create a progressive attitudes scale (αs = 0.57 and 0.56 for mothers and fathers, respectively, ranging from 0.37 in Kenya to 0.74 in Thailand, with 42% over 0.60 for mothers, and from 0.40 in Naples, Italy, to 0.70 in Sweden, with 42% over 0.60 for fathers) and an authoritarian attitudes scale (αs = 0.88 and 0.88 for mothers and fathers, respectively, ranging from 0.70 in Jordan to 0.88 in the Philippines for mothers and from 0.70 in Thailand to 0.90 in US Latinx for fathers).

Predictors: At child ages 8 and 9, the mothers completed a demographic questionnaire either orally or in writing (depending on the mothers' preference) that included items about the number of years of education completed by the mother and the father (in both years) and the household income in local currency (only in year 2). We standardized the education measures and the year 2 household income within site to aid in comparison of structural coefficients, because income and education, even when converted to common units, often do not have comparable meanings between nations and cultural groups. Additional demographic predictors included child gender, mother age, father age, number of adults in the household, and number of children in the household. The mothers were also asked to rate "how important would you say religion is in your life" on a 5-point scale, where 1 = not important and 5 = very important.

2.3. Analysis Plan

All continuous variables were standardized to a grand mean of 0 and an SD of 1 to yield easily interpretable relations between predictors and outcomes. We handled missing data using Full Information Maximum Likelihood (Larsen 2011). Data were missing on 13% of the mothers and 28% of the fathers on the individualism/collectivism variables and 5% of the mothers and 23% of the fathers on the parental progressive and authoritarian attitude variables.

For aim 1, the within-culture variance and between-culture variance was calculated using a fixed-effects multilevel model without predictors in Mplus (also known as an unconditional model). The model estimates the within-level and between-level variances, which were used to calculate the intra-class correlation (ICC), which measures the proportion of inter-person variance that is between cultures.

For aims 2 and 3, we estimated the a priori model testing predictors of mothers' and fathers' individualism, collectivism, progressive attitudes, and authoritarian attitudes using a structural equation multiple group model by site using Mplus version 8. We used the MLR estimator to provide Satorra–Bentler robust standard errors to address any non-normality in the dependent variables. China was not included in the outcome analysis due to having no data on household income. Because we started with the theoretical perspective that the hypothesized relations should be universal and not differ by culture, we estimated a model that held all paths and correlations of the outcomes to be equal across cultures. A good model fit is defined by a non-significant chi-square test, CFI and TLI greater than or equal to 0.95, and RMSEA less than or equal to 0.06 (Hu and Bentler 1999). If a good model fit was not achieved, modification indices were then consulted to determine parameters that would be theoretically plausible to free in a specific culture. The parameter with the largest index was freed in a specific culture and no longer constrained to be equal across cultures. This model with unconstrained parameters was compared to a fully constrained model using a chi-square difference test. If the test revealed a significant difference in fit, then the unconstrained parameter was retained, modification indices were again consulted, and the plausible parameter with the largest index was freed. This iterative process was continued until the chi-square test comparing the constrained and

unconstrained models was not significant, indicating that the model freeing the parameter (less parsimonious model) fit the data significantly worse than the more parsimonious fixed model. We then pruned paths that were non-significant for all cultures. We conducted a sensitivity analysis using more conservative bootstrapped standard errors in place of MLR, and the significance and magnitude of the findings were not different upon comparison with the initial model.

3. Results

3.1. Within- vs. Between-Culture Variance in Individualism, Collectivism, Progressive Attitudes, and Authoritarian Attitudes

Our first research aim was to understand the proportions of the total variance in parental (1) individualism, (2) collectivism, (3) progressive attitudes, and (4) authoritarian attitudes accounted for by within-culture versus between-culture factors. For each variable, the majority of the variance was between individuals within cultures (Table 3). The ICCs ranged from 0.03 for father collectivism to 0.35 for mother authoritarian attitudes, meaning that 3% of the variance in father collectivism and 35% of the variance in mother authoritarian attitudes were accounted for by between-culture factors. The strongest ICCs were for mother and father individualism (0.22 and 0.19) and mother and father authoritarian attitudes (0.35 and 0.34). Mother and father collectivism and mother and father progressive attitudes had weak and/or non-significant ICCs.

Table 3. Estimated variances and intra-class correlations.

	Variances (SE)		ICC
	Between Adolescents within Cultures	**Between Cultures**	
Mother Individualism	0.21 (0.02) ***	0.05 (0.02) *	0.22 (0.08) **
Father Individualism	0.20 (0.02) ***	0.04 (0.02) *	0.19 (0.08) *
Mother Collectivism	0.19 (0.01) ***	0.01 (0.00) ***	0.07 (0.02) ***
Father Collectivism	0.13 (0.01) ***	0.00 (0.00) *	0.03 (0.01) *
Mother Progressive Attitudes	0.12 (0.02) ***	0.02 (0.01)	0.13 (0.07)
Father Progressive Attitudes	0.12 (0.01) ***	0.015 (0.007) *	0.12 (0.049) *
Mother Authoritarian Attitudes	0.22 (0.03) ***	0.08 (0.03) **	0.35 (0.08) ***
Father Authoritarian Attitudes	0.20 (0.02) ***	0.07 (0.02) ***	0.34 (0.07) ***

$* p < 0.05$. $** p < 0.01$. $*** p < 0.001$.

3.2. Predictors of Individualism, Collectivism, Progressive Attitudes, and Authoritarian Attitudes

Our second and third research aims concerned potential predictors of parental (1) individualism, (2) collectivism, (3) progressive attitudes, and (4) authoritarian attitudes and whether these relations differed significantly across (1) mothers and fathers and (2) cultures. Bivariate correlations are presented in Table 2.

Table 4 provides the unstandardized results for the final multiple group model for culture. Our initial a priori multiple group model constraining all paths to be equal across cultures had a mixed fit ($\chi2(1088) = 1612.234$, $p < 0.001$, RMSEA = 0.067, 90% CI = (0.060, 0.074), CFI = 0.636, TLI = 0.632). After freeing 7.34% (80) of all possible paths, the model fit significantly better ($\chi2(923) = 957.236$, $p = 0.211$, RMSEA = 0.018, 90% CI = (0.000, 0.033), CFI = 0.976, TLI = 0.972). Child gender and number of adults in the household were not significantly associated with any of the outcomes for any of the cultures and are omitted from Table 4.

Table 4. Unstandardized results for the culture multiple group model.

	Colombia	Italy, Naples	Italy, Rome	Jordan	Kenya	Philippines	Sweden	Thailand	U.S.-Black	U.S.-White	U.S.-Latinx
Mother Individualism											
Mother Education	−0.03 (0.02)	−0.03 (0.02)	−0.03 (0.02)	−0.03 (0.02)	0.11 (0.05) *	−0.03 (0.02)	−0.03 (0.02)	−0.03 (0.02)	−0.03 (0.02)	−0.03 (0.02)	−0.03 (0.02)
Number of Children	0.01 (0.01)	0.10 (0.04) *	−0.07 (0.03) *	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Father Individualism											
Mother Education	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.13 (0.05) **	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)
Father Education	−0.06 (0.02) **	−0.06 (0.02) **	−0.06 (0.02) **	0.07 (0.04) *	−0.06 (0.02) **	−0.06 (0.02) **	−0.06 (0.02) **	−0.06 (0.02) **	−0.06 (0.02) **	−0.06 (0.02) **	−0.06 (0.02) **
Religious Importance	−0.00 (0.01)	−0.00 (0.01)	−0.00 (0.01)	−0.00 (0.01)	−0.00 (0.01)	0.10 (0.04) *	−0.00 (0.01)	−0.00 (0.01)	−0.07 (0.04) *	−0.00 (0.01)	−0.00 (0.01)
Mother Collectivism											
Mother Age	0.03 (0.01)	0.03 (0.01)	0.03 (0.01)	0.03 (0.01)	0.03 (0.01)	0.03 (0.01)	−0.06 (0.03) *	−0.06 (0.03)	0.03 (0.01)	0.03 (0.01)	0.03 (0.01)
Father Age	−0.07 (0.03) *	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Mother Education	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	−0.08 (0.03) **	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Father Education	−0.03 (0.01) *	−0.03 (0.01) *	−0.03 (0.01) *	−0.03 (0.01) *	−0.03 (0.01) *	−0.03 (0.01) *	0.04 (0.02)	−0.03 (0.01) *	−0.03 (0.01) *	−0.03 (0.01) *	−0.03 (0.01) *
Family Income	0.06 (0.01) ***	−0.02 (0.03)	0.06 (0.01) ***	0.06 (0.01) ***	−0.07 (0.05)	0.06 (0.01) ***	0.06 (0.01) ***	0.06 (0.01) ***	0.06 (0.01) ***	−0.04 (0.03)	0.06 (0.01) ***
Religious Importance	0.03 (0.01) **	0.03 (0.01) **	0.03 (0.01) **	0.03 (0.01) **	0.03 (0.01) **	0.03 (0.01) **	0.03 (0.01) **	0.10 (0.02) ***	0.03 (0.01) **	0.03 (0.01) **	0.03 (0.01) **
Number of Children	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	−0.08 (0.04) *	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Father Collectivism											
Father Age	0.05 (0.03)	−0.04 (0.02) *	−0.04 (0.02) *	−0.04 (0.02) *	−0.04 (0.02) *	−0.04 (0.02) *	−0.04 (0.02) *	−0.04 (0.02) *	−0.04 (0.02) *	−0.04 (0.02) *	−0.04 (0.02) *
Mother Education	−0.00 (0.01)	−0.00 (0.01)	−0.00 (0.01)	−0.00 (0.01)	0.14 (0.04) **	−0.00 (0.01)	−0.00 (0.01)	−0.00 (0.01)	−0.00 (0.01)	−0.00 (0.01)	−0.00 (0.01)
Number of Children	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.11 (0.04) *	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)

Table 4. *Cont.*

	Colombia	Italy, Naples	Italy, Rome	Jordan	Kenya	Philippines	Sweden	Thailand	U.S.-Black	U.S.-White	U.S.-Latinx
Mother Progressive Attitudes											
Father Age	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	−0.05 (0.02) *	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)
Mother Education	0.04 (0.01) **	0.04 (0.01) **	0.04 (0.01) **	0.04 (0.01) **	0.12 (0.03) ***	0.04 (0.01) **	0.00 (0.03)	0.14 (0.03) ***	0.04 (0.01) **	0.04 (0.01) **	0.04 (0.01) **
Religious Importance	−0.02 (0.01) *	0.06 (0.03) *	−0.02 (0.01) *	−0.02 (0.01) *	−0.02 (0.01) *	−0.02 (0.01) *	−0.02 (0.01) *	−0.02 (0.01) *	−0.02 (0.01) *	−0.02 (0.01) *	−0.02 (0.01) *
Father Progressive Attitudes											
Mother Age	0.03 (0.01) *	0.03 (0.01) *	0.03 (0.01) *	0.03 (0.01) *	0.03 (0.01) *	0.03 (0.01) *	−0.05 (0.04)	0.03 (0.01) *	0.03 (0.01) *	0.03 (0.01) *	0.03 (0.01) *
Father Education	0.03 (0.01) *	0.03 (0.01) *	0.03 (0.01) *	−0.12 (0.04) **	0.03 (0.01) *	0.03 (0.01) *	0.03 (0.01) *	0.14 (0.03) ***	0.03 (0.01) *	0.03 (0.01) *	0.03 (0.01) *
Family Income	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.09 (0.04) *	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)
Religious Importance	−0.00 (0.01)	−0.00 (0.01)	−0.00 (0.01)	−0.00 (0.01)	−0.00 (0.01)	0.06 (0.03) *	−0.06 (0.02) **	−0.00 (0.01)	−0.00 (0.01)	−0.10 (0.03) **	−0.00 (0.01)
Mother Authoritarian Attitudes											
Mother Education	−0.11 (0.01) ***	−0.11 (0.01) ***	−0.11 (0.01) ***	−0.11 (0.01) ***	−0.11 (0.01) ***	−0.11 (0.01) ***	−0.11 (0.01) ***	−0.11 (0.01) ***	−0.11 (0.01) ***	−0.11 (0.01) ***	−0.11 (0.01) ***
Father Education	−0.01 (0.01)	−0.01 (0.01)	−0.01 (0.01)	−0.01 (0.01)	−0.01 (0.01)	−0.11 (0.04) **	−0.01 (0.01)	−0.01 (0.01)	−0.01 (0.01)	−0.01 (0.01)	−0.01 (0.01)
Family Income	−0.03 (0.01) *	−0.03 (0.01) *	−0.03 (0.01) *	−0.03 (0.01) *	−0.03 (0.01) *	−0.10 (0.04) *	−0.03 (0.01) *	−0.12 (0.03) ***	−0.03 (0.01) *	−0.03 (0.01) *	−0.03 (0.01) *
Religious Importance	0.05 (0.01) ***	0.05 (0.01) ***	0.05 (0.01) ***	0.05 (0.01) ***	−0.04 (0.02) *	0.05 (0.01) ***	0.05 (0.01) ***	0.05 (0.01) ***	0.05 (0.01) ***	0.05 (0.01) ***	0.05 (0.01) ***
Father Authoritarian Attitudes											
Mother Education	−0.04 (0.01) **	−0.04 (0.01) **	−0.04 (0.01) **	−0.04 (0.01) **	−0.04 (0.01) **	−0.04 (0.01) **	−0.04 (0.01) **	−0.04 (0.01) **	−0.04 (0.01) **	−0.04 (0.01) **	−0.04 (0.01) **
Father Education	−0.10 (0.01) ***	−0.10 (0.01) ***	−0.10 (0.01) ***	−0.10 (0.01) ***	−0.10 (0.01) ***	−0.10 (0.01) ***	−0.10 (0.01) ***	−0.10 (0.01) ***	−0.10 (0.01) ***	−0.10 (0.01) ***	−0.10 (0.01) ***
Family Income	−0.03 (0.01) *	−0.03 (0.01) *	−0.03 (0.01) *	−0.03 (0.01) *	−0.03 (0.01) *	−0.10 (0.04) *	−0.03 (0.01) *	−0.03 (0.01) *	−0.16 (0.04) ***	−0.03 (0.01) *	−0.03 (0.01) *
Religious Importance	0.04 (0.01) **	0.04 (0.01) **	0.04 (0.01) **	0.04 (0.01) **	0.04 (0.01) **	0.04 (0.01) **	0.04 (0.01) **	0.04 (0.01) **	0.04 (0.01) **	0.04 (0.01) **	0.04 (0.01) **

Note. Child gender, mother age, father age, religious importance, number of children in the household, number of adults in the household, mother education, father education, and family income were included as predictors in all models. Only predictors that were significant in one or more groups are included in the table. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

Mother individualism: The only variables that were significantly associated with mother individualism were mother education, and only in Kenya, where mother education was positively associated with mother individualism, and the number of children in the household in Naples and Rome, Italy, with more children in the household associated with significantly higher individualism in Naples and significantly lower individualism in Rome.

Father individualism: Father education was significantly negatively associated with father individualism, except in Jordan, where the association was positive. In Kenya, mother education was significantly positively associated with father individualism. Religious importance was positively related to father individualism in the Philippines and negatively related to father individualism in U.S. Black Americans.

Mother collectivism: The importance of religion to mothers was positively associated with mother collectivism in all cultures. Additionally, father education was significantly negatively associated with mother collectivism in all cultures except Sweden, where it was not significantly related. Family income was significantly positively associated with mother collectivism in all cultures except for Naples, Italy, and Kenya, where they were not significantly related. Mother collectivism was also negatively related to mother age and mother education in Sweden, father age in Colombia, and number of children in the household in Kenya.

Father collectivism: Father age was significantly negatively associated with father collectivism in all cultures except Colombia. Additionally, the number of children in the household and the mother's education were positively associated with the father's collectivism in Kenya.

Mother progressive attitudes: Mother education was significantly positively associated with mother progressive attitudes in all cultures except for Sweden. Additionally, religious importance was significantly negatively associated with mother progressive attitudes in all cultures. Father age was significantly negatively associated with mother progressive attitudes in Sweden.

Father progressive attitudes: Father education and mother age were significantly positively associated with father progressive attitudes in all cultures. Family income was only significantly positively associated with father progressive attitudes in Jordan and not significantly associated in the other cultures. Additionally, the importance of religion was significantly positively associated with father progressive attitudes in the Philippines and significantly negatively associated with father progressive attitudes in Sweden and in U.S. White Americans.

Mother authoritarian attitudes: Mother education and family income were significantly negatively associated with mother authoritarian attitudes in all cultures, whereas the importance of religion was significantly positively associated with mother authoritarian attitudes in all cultures. Father education was negatively associated with mother authoritarian attitudes only in the Philippines.

Father authoritarian attitudes: Mother education, father education, and family income were significantly negatively associated with father authoritarian attitudes in all cultures, whereas the importance of religion was significantly positively associated with father authoritarian attitudes in all cultures.

4. Discussion

This study addressed three aims. Our first aim was to understand the proportions of variance accounted for by within-culture versus between-culture factors in mothers' and fathers' individualism, collectivism, progressive attitudes, and authoritarian attitudes. Our hypothesis that more variance in individualism, collectivism, progressive attitudes, and authoritarian attitudes would be accounted for by within-culture than between-culture factors was supported. Our second and third aims were to understand predictors of individualism, collectivism, progressive attitudes, and authoritarian attitudes and whether these predictors are similar for mothers and fathers and across cultures. Overall, few

sociodemographic predictors significantly predicted either mothers' or fathers' individualism, collectivism, progressive attitudes, and authoritarian attitudes. The most consistent predictors were mothers' and fathers' education and mothers' reports of the importance of religion in their lives. Our hypothesis about less parental education and lower household income being related to more authoritarian parenting attitudes was supported. We found more similarities than differences in predictors across cultures as only 7.34% of paths and correlations among outcomes differed across cultural groups.

It was interesting that between-culture factors accounted for more variance in individualism than collectivism. It is possible that a collectivist orientation taps into aspects of social relationships that are more universally valued across cultures than the aspects of self-reliance that are embodied in individualism so that variance in collectivism is more driven by within-culture factors, such as personality. These findings support conceptualizations of individualism and collectivism as being discrete constructs rather than opposite ends of the same dimension (Kâğıtçıbaşı 1997). Correlations between mothers' individualism and collectivism and fathers' individualism and collectivism were modest and positive (0.26 and 0.22, respectively). That is, mothers and fathers who were more individualist were also more, not less, collectivist. Although countries are often ranked or categorized in terms of whether they are more collectivist or individualist, individual parents (as well as countries) can have characteristics that are collectivist in addition to characteristics that are individualist.

Between-culture factors also accounted for more variance in authoritarian than progressive attitudes. Many cultures that historically espoused authoritarian parenting attitudes have become less authoritarian over time (Ulferts 2020). Decreasing authoritarian parenting attitudes have been linked to women's increased participation in higher education and the labor market, urbanization, globalization, and technology uptake (Chen 2019; Chen and Chen 2010; Greenfield 2009), all of which have shaped social change in the late 20th and early 21st centuries (Chang et al. 2011). An increase in more progressive attitudes, which often endorse children's agency and right to express their own views, likewise has been associated with social changes over historical time. For example, the Convention on the Rights of the Child, ratified by all nations except the United States, asserts children's right to participate in decisions that affect their lives and has been used as a catalyst for child protection efforts by many nations from the late 20th to the 21st century (UNICEF 2021). In the present study, mothers and fathers with more authoritarian attitudes had less progressive attitudes but the correlations were modest (-0.18 and -0.15, respectively), suggesting only a loose overlap in these attitudes.

Previous research has treated individualism and collectivism largely as culture- or country-wide variables (e.g., Hofstede 1980), focusing less on individual-level predictors of individualism and collectivism. Although individualism and collectivism remain useful heuristics for categorizing cultural groups and countries (Hofstede 2011; Oyserman et al. 2002), it is also useful to consider individual-level predictors of 21st century parents' individualism and collectivism. We found no consistent predictors of mothers' individualism across cultural groups, but fathers who were more educated were less individualistic in 10 of the 11 groups. Mothers' collectivism was predicted by the placement of more importance on religion in all cultural groups, by lower father education in 10 of the 11 groups, and by higher family income in 8 of the 11 groups. Fathers' collectivism was predicted by younger father age in 10 of the 11 groups. Other significant predictors were less consistent across cultural groups. These findings suggest that although individualism and collectivism have often been treated as country-level constructs, they can also be understood as being predicted by some individual-level factors.

In comparison to individualism and collectivism, progressive and authoritarian attitudes have more often been treated as individual-level variables that are predicted by factors such as parental education and income (e.g., Park and Lau 2016). Consistent with previous research, we also found that, across cultures, more highly educated mothers and fathers had more progressive and less authoritarian attitudes. A higher family income was

also related to mothers' and fathers' less authoritarian attitudes but was generally unrelated to mothers' and fathers' progressive attitudes. Across the cultural groups included in the present study, we also found that the more importance mothers placed on religion, the less progressive their parenting attitudes were (and the less progressive fathers' attitudes were in some groups) and the more authoritarian their own and fathers' parenting attitudes were. These results are consistent with some previous research (Horwath and Lees 2010), although previous findings regarding links between religion and authoritarian parenting attitudes have been mixed (Petro et al. 2018).

4.1. Strengths and Limitations

The study's strengths should be considered in light of the limitations. First, although changes in collectivism versus individualism and progressive versus traditional parenting attitudes have been documented in the literature, we were not able to track these changes historically in our own data. Second, the samples in each site were locally representative of the cities from which they were drawn; they are not nationally representative. Findings should not be generalized to entire nations or to cultural groups beyond those studied here. Future research will benefit from studying within-country variation (e.g., by religious group or rural versus urban residence) as well as the between-country variations examined in the present study. Third, the present study focused primarily on sociodemographic predictors of individualism, collectivism, progressive attitudes, and authoritarian attitudes. Future research will benefit from investigating other predictors, such as political leaning, parents' experiences when they were children, or personality factors, as ways of understanding how these orientations and attitudes develop (Bornstein et al. 2011a). Fourth, we did not look at country-level variables, such as income inequality or homogeneous vs. heterogeneous ethnic groups or religious populations that may be associated with these outcomes. In addition to examining country-level predictors, future research should also examine individualism, collectivism, progressive attitudes, and authoritarian attitudes as predictors of parenting behaviors in diverse cultural groups to better understand 21st century parenting in the context of ongoing social change.

4.2. Implications

The findings have several implications for understanding parenting in the 21st century. As parents have access to a diverse range of global perspectives through the Internet and social media and as they have experienced social changes associated with urbanization and globalization, 21st century parents may be even more likely than those in previous generations to have characteristics of both individualism and collectivism (see Tamis-LeMonda et al. 2008). For example, differences in individuals' individualist and collectivist orientations are playing out in response to the global COVID-19 pandemic. Individuals who have more individualistic orientations are more motivated to be vaccinated after hearing messages about the individual benefits of the vaccine, whereas individuals who have more collectivistic orientations are more motivated to be vaccinated after hearing messages about benefits for their community (Yuan and Chu 2021). Better understanding of predictors of these orientations offers the possibility of targeting behavioral change messages in ways that might address individuals' concerns and motivations. For example, because collectivism is predicted by placing more importance on religion, public health experts might be encouraged to work through faith communities to explain how virus mitigation measures, such as vaccinations, work for the greater good.

In addition, as parents in the 21st century continue to navigate sometimes rapid social changes, they may find themselves embracing a mix of both progressive and authoritarian attitudes. Sometimes, this mix of progressive and authoritarian attitudes is especially pronounced for families that immigrate from one country to another country that has different historic and current attitudes and can lead to negotiations between parents and children related to discrepant attitudes (e.g., Osman et al. 2021). Because sociodemographic factors at both a cultural level, as found in previous research (Sorbring et al. 2021), and at

an individual level, as found in the present study and previous research (Wamser-Nanney and Campbell 2020), predict parents' attitudes, understanding the attitudes of 21st century parents may be bolstered by understanding historical changes in demographic factors. For example, as the average education levels attained in a population increase over historical time, as has occurred in many countries (UNICEF 2019), or as a population decreases in its religiosity over historical time, as also has occurred in many countries (Ruck et al. 2018), parents' attitudes may shift as well.

5. Conclusions

Taken together, the findings suggest two main conclusions. First, differences in individualism, collectivism, progressive parenting attitudes, and authoritarian parenting attitudes are accounted for more by within-culture than between-culture factors. Second, in ways that are largely consistent for mothers and fathers and across cultures, individualism, collectivism, progressive parenting attitudes, and authoritarian parenting attitudes are predicted by a range of sociodemographic factors, especially mothers' and fathers' education and mothers' reports of the importance of religion in their lives. Changing gender roles, urbanization, globalization, and technology uptake from the 20th to the 21st century may have contributed to some of the similarities between mothers and fathers and across the nine countries included in this study. As parents are affected by social contexts and also influence social change over time, understanding 21st century parenting is dependent on understanding cultural and sociohistorical contexts in which parents are embedded.

Author Contributions: Conceptualization, J.E.L.; methodology, all authors; formal analysis, S.Z.; investigation, all authors; writing—original draft preparation, J.E.L. and S.Z.; writing—review and editing, all authors; funding acquisition, J.E.L. All authors have read and agreed to the published version of the manuscript.

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Institutional Review Board of Duke University (protocol 2017-1191, approved 7 July 2021) and review boards in all participating countries.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to privacy and ethics restrictions.

Conflicts of Interest: The authors declare no conflict of interest.

References

Alampay, Liane Peña, Jennifer Godwin, Jennifer E. Lansford, Paul Oburu, Marc H. Bornstein, Lei Chang, Kirby Deater-Deckard, W. Andrew Rothenberg, Patrick S. Malone, Ann T. Skinner, and et al. 2021. Change in caregivers' attitudes and use of corporal punishment following a legal ban: A multi-country longitudinal comparison. *Child Maltreatment*. [CrossRef]

Binder, Carola Conces. 2019. Redistribution and the individualism–collectivism dimension of culture. *Social Indicators Research* 142: 1175–92. [CrossRef]

Bonett, Douglas G. 2012. Replication-extension studies. *Current Directions in Psychological Science* 21: 409–12. [CrossRef]

Bornstein, Marc H. 2019. "It's about time!" Ecological systems, transaction, and specificity as key developmental principles in children's changing worlds. In *Children in Changing Worlds: Sociocultural and Temporal Perspectives*. Edited by Ross D. Parke and Glen H. Elder. Cambridge: Cambridge University Press, pp. 277–86. [CrossRef]

Bornstein, Marc H., Chun-Shin Hahn, and O. Maurice Haynes. 2011a. Maternal personality, parenting cognitions, and parenting practices. *Developmental Psychology* 47: 658–75. [CrossRef] [PubMed]

Bornstein, Marc H., Diane L. Putnick, and Jennifer E. Lansford. 2011b. Parenting attributions and attitudes in cross-cultural perspective. *Parenting: Science and Practice* 11: 214–37. [CrossRef]

Bowen, Murray. 1978. *Family Therapy in Clinical Practice*. Lanham: Rowman & Littlefield.

Bray, Rachel, and Andrew Dawes. 2016. *Parenting, Family Care and Adolescence in East and Southern Africa: An Evidence-focused Literature Review*. New York: UNICEF.

Chang, Lei, Bin-Bin Chen, and Lin Qin Ji. 2011. Attributions and attitudes of mothers and fathers in China. *Parenting: Science and Practice* 11: 102–15. [CrossRef] [PubMed]

Chen, Xinyin. 2019. Culture and shyness in childhood and adolescence. *New Ideas in Psychology* 53: 58–66. [CrossRef]

Chen, Xinyin, and Huichang Chen. 2010. Children's socioemotional functioning and adjustment in the changing Chinese society. In *Social Change and Human Development: Concepts and Results*. Edited by Rainer. K. Silbereisen and Xinyin Chen. London: Sage, pp. 209–26.

Chuang, Susan S., Jenny Glozman, David S. Green, and Sarah Rasmi. 2018. Parenting and family relationships in Chinese families: A critical ecological approach. *Journal of Family Theory & Review* 10: 367–83. [CrossRef]

Craig, Lyn, Abigail Powell, and Ciara Smyth. 2014. Towards intensive parenting? Changes in the composition and determinants of mothers' and fathers' time with children 1992–2006. *The British Journal of Sociology* 65: 555–79. [CrossRef]

Deater-Deckard, Kirby, Jennifer Godwin, Jennifer E. Lansford, Dario Bacchini, Anna Silvia Bombi, Marc H. Bornstein, Lei Chang, Laura Di Giunta, Kenneth A. Dodge, Patrick S. Malone, and et al. 2018. Within- and between-person and group variance in behavior and beliefs in cross-cultural longitudinal data. *Journal of Adolescence* 62: 207–17. [CrossRef] [PubMed]

Dotti Sani, Giulia, and Judith Treas. 2016. Educational gradients in parents' child-care time across countries, 1965–2012. *Journal of Marriage and Family* 78: 1083–96. [CrossRef]

Duncan, Greg J., Mimi Engel, Amy Claessens, and Chantelle J. Dowsett. 2014. Replication and robustness in developmental research. *Developmental Psychology* 50: 2417–25. [CrossRef]

Erdem, Gizem, and Ommay Aiman Safi. 2018. The cultural lens approach to Bowen Family Systems Theory: Contributions of Family Change Theory. *Journal of Family Theory & Review* 10: 469–83. [CrossRef]

Erkut, Sumru. 2010. Developing multiple language versions of instruments for intercultural research. *Child Development Perspectives* 4: 19–24. [CrossRef]

Fijneman, Yvonne A., Madde E. Willemsen, Ype H. Poortinga, Fatos G. Erelcin, James Georgas, C. Harry Hui, Kwok Leung, and Roy S. Malpass. 1995. Individualism-collectivism: An empirical study of a conceptual issue. *Journal of Cross-Cultural Psychology* 27: 381–402. [CrossRef]

Fung, Joey, Joanna J. Kim, Joel Jin, Qiaobing Wu, Chao Fang, and Anna S. Lau. 2017. Perceived social change, parental control, and family relations: A comparison of Chinese families in Hong Kong, mainland China, and the United States. *Frontiers in Psychology* 8: 1671. [CrossRef]

Gershoff, Elizabeth Thompson, Pamela C. Miller, and George W. Holden. 1999. Parenting influences from the pulpit: Religious affiliation as determinant of parental corporal punishment. *Journal of Family Psychology* 13: 307–20. [CrossRef]

Greenfield, Patricia M. 2009. Linking social change and developmental change: Shifting pathways of human development. *Developmental Psychology* 45: 401–18. [CrossRef] [PubMed]

Haring, Ute, Reesa Sorin, and Nerina J. Caltabiano. 2019. Reflecting on childhood and child agency in history. *Palgrave Communications* 5: 52. [CrossRef]

Harrelson-Stephens, Julie, and Rhonda L. Callaway. 2014. You say you want a revolution: The Arab Spring, norm diffusion, and the human rights regime. *Human Rights Review* 15: 413–31. [CrossRef]

He, Huihua, Satoshi Usami, Yuuki Rikimaru, and Lu Jian. 2021. Cultural roots of parenting: Mothers' parental social cognitions and practices from western US and Shanghai/China. *Frontiers in Psychology* 12: 565040. [CrossRef]

Hoff, Erika, and Brett Laursen. 2019. Socioeconomic status and parenting. In *Handbook of Parenting: Biology and Ecology of Parenting*. Edited by Marc H. Bornstein. London: Routledge, pp. 421–47. [CrossRef]

Hofstede, Geert. 1980. *Culture's Consequences: International Differences in Work-Related Values*. Newbury Park: Sage.

Hofstede, Geert. 1991. *Cultures and Organizations: Software of the Mind*. New York: McGraw-Hill.

Hofstede, Geert. 2011. Dimensionalizing cultures: The Hofstede model in context. *Online Readings in Psychology and Culture* 2: 2307–919. [CrossRef]

Hofstede Insights. 2021. Country Comparison. Available online: https://www.hofstede-insights.com/country-comparison (accessed on 27 November 2021).

Horwath, Jan, and Janet Lees. 2010. Assessing the influence of religious beliefs and practices on parenting capacity: The challenges for social work practitioners. *British Journal of Social Work* 40: 82–99. [CrossRef]

Hu, Li-tze, and Peter M. Bentler. 1999. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling* 6: 1–55. [CrossRef]

Hui, C. Harry, and Candice Yee. 1994. The shortened individualism-collectivism scale: Its relationship to demographic and work-related variables. *Journal of Research in Personality* 28: 409–24. [CrossRef]

International Labor Organization. 2014. *Maternity and Paternity at Work: Law and Practice Across the World*. Geneva: International Labor Organization.

Jager, Justin, Diane L. Putnick, and Marc H. Bornstein. 2017. More than just convenient: The scientific merits of homogeneous convenience samples. *Monographs of the Society for Research in Child Development* 82: 13–30. [CrossRef] [PubMed]

Kâğıtçıbaşı, Çiğdem. 1997. Individualism and collectivism. In *Handbook of Cross-Cultural Psychology: Social Behavior and Applications*, 2nd ed. Edited by John W. Berry, Marshall H. Segall and Çiğdem Kâğıtçıbaşı. Boston: Allyn & Bacon, pp. 1–50.

Kâğıtçıbaşı, Çiğdem. 2002. A model of family change in cultural context. *Online Readings in Psychology and Culture* 6. [CrossRef]

Lansford, Jennifer E., and Marc H. Bornstein. 2011. Parenting attributions and attitudes in diverse cultural contexts: Introduction to the Special Issue. *Parenting: Science and Practice* 11: 87–101. [CrossRef]

Lansford, Jennifer E., Anis Ben Brik, and Abdallah M. Badahdah, eds. 2021. *Families and Social Change in the Gulf Region*. London: Routledge.

Larsen, Ross. 2011. Missing data imputation versus full information maximum likelihood with second-level dependencies. *Structural Equation Modeling* 18: 649–62. [CrossRef]

Miho, Antonela, and Olivier Thévenon. 2020. Treating all children equally?: Why policies should adapt to evolving family living arrangements. *OECD Social, Employment and Migration Working Papers* 240: 1–43.

Ogihara, Yuji. 2017. Temporal changes in individualism and their ramification in Japan: Rising individualism and conflicts with persisting collectivism. *Frontiers in Psychology* 23: 695. [CrossRef]

Ogihara, Yuji. 2018. The rise in individualism in Japan: Temporal changes in family structure, 1947–2015. *Journal of Cross-Cultural Psychology* 49: 1219–26. [CrossRef]

Osman, Fatumo, Eva Randell, Abdikerim Mohamed, and Emma Sorbring. 2021. Dialectical processes in parent-child relationships among Somali families in Sweden. *Journal of Child and Family Studies* 30: 1752–62. [CrossRef]

Oyserman, Daphna, Heather M. Coon, and Markus Kemmelmeier. 2002. Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin* 128: 3–72. [CrossRef] [PubMed]

Park, Heejung, and Anna S. Lau. 2016. Socioeconomic status and parenting priorities: Child independence and obedience around the world. *Journal of Marriage and Family* 78: 43–59. [CrossRef]

Petro, Mervyn Ronald, Edna Grace Rich, Charlene Erasmus, and Nicolette Vanessa Roman. 2018. The effect of religion on parenting in order to guide parents in the way they parent: A systematic review. *Journal of Spirituality in Mental Health* 20: 114–39. [CrossRef]

Rauscher, Emily. 2020. Why who marries whom matters: Effects of educational assortative mating on infant health in the United States 1969–1994. *Social Forces* 98: 1143–73. [CrossRef]

Rodrigo, María José, Sonia Byrne, and Beatriz Rodríguez. 2014. Parenting styles and child well-being. In *Handbook of Child Well-being: Theories, Methods and Policies in Global Perspective*. Edited by Asher Ben Arieh, Ferran Casas, Ivor Frønes and Jill E. Korbin. Berlin: Springer, pp. 2173–96. [CrossRef]

Ruck, Damian J., R. Alexander Bentley, and Daniel J. Lawson. 2018. Religious change preceded economic change in the 20th century. *Science Advances* 4: eaar8680. [CrossRef] [PubMed]

Schaefer, Earl S., and Marianna Edgerton. 1985. Parent and child correlates of parental modernity. In *Parental Belief Systems: Psychological Consequences for Children*. Edited by Irving E. Sigel. Mahwah: Erlbaum, pp. 287–318.

Segall, Marshall H., and Çiğdem Kâğıtçıbaşı. 1997. Introduction to Volume 3. In *Handbook of Cross-Cultural Psychology: Social Behavior and Applications*, 2nd ed. Edited by John W. Berry, Marshall H. Segall and Çiğdem Kâğıtçıbaşı. Boston: Allyn & Bacon, pp. xxv–xxxv.

Singelis, Theodore M., Harry C. Triandis, Dharm P. S. Bhawuk, and Michele J. Gelfand. 1995. Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *Cross-Cultural Research* 29: 240–75. [CrossRef]

Sorbring, Emma, Sevtap Gurdal, and W. Andrew Rothenberg. 2021. Four domains of parenting in Sweden. In *Parenting Across Cultures From Childhood to Adolescence: Development in Nine Countries*. Edited by Jennifer E. Lansford, W. Andrew Rothenberg and Marc H. Bornstein. London: Routledge, pp. 152–71.

Tam, Wai-Cheong Carl, Yung-Jong Shiah, and Shih-Kuang Chiang. 2003. Chinese version of the separation-individuation inventory. *Psychological Reports* 93: 291–99. [CrossRef] [PubMed]

Tamis-LeMonda, Catherine S., Niobe Way, Diane Hughes, Hirokazu Yoshikawa, Ronit Kahana Kalman, and Erika Y. Niwa. 2008. Parents' goals for children: The dynamic coexistence of individualism and collectivism in cultures and individuals. *Social Development* 17: 183–209. [CrossRef]

Triandis, Harry C. 1995. *Individualism and Collectivism*. Boulder: Westview.

Triandis, Harry C., Robert Bontempo, Hector Betancourt, Michael Bond, Kwok Leung, Abelando Brenes, James Georgas, C. Harry Hui, Gerardo Marin, Bernadette Setiadi, and et al. 1986. The measurement of etic aspects of individualism and collectivism across cultures. *Australian Journal of Psychology* 38: 257–67. [CrossRef]

Triandis, Harry C., Richard Brislin, and C. Harry Hui. 1988. Cross-cultural training across the individualism-collectivism divide. *International Journal of Intercultural Relations* 12: 269–89. [CrossRef]

Triandis, Harry C., Christopher McCusker, and C. Harry Hui. 1990. Multi-method probes of individualism and collectivism. *Journal of Personality and Social Psychology* 59: 1006–20. [CrossRef]

Trifan, Tatiana Alina, Håkan Stattin, and Lauree Tilton-Weaver. 2014. Have authoritarian parenting practices and roles changed in the last 50 years? *Journal of Marriage and Family* 76: 744–61. [CrossRef]

U.S. Department of Education. 2020. Highlights of U.S. PISA 2018 Results Web Report (NCES 2020-166 and NCES 2020-072). Available online: https://nces.ed.gov/surveys/pisa/pisa2018/index.asp (accessed on 27 November 2021).

Ulferts, Hannah. 2020. Why Parenting Matters for Children in the 21st Century: An Evidence-Based Framework for Understanding Parenting and Its Impact on Child Development. OECD Education Working Paper No. 222. Available online: https://www.oecd-ilibrary.org/education/why-parenting-matters-for-children-in-the-21st-century_129a1a59-en (accessed on 27 November 2021).

UNICEF. 2019. Every Child Learns. Available online: https://www.unicef.org/media/59856/file/UNICEF-education-strategy-2019-2030.pdf (accessed on 27 November 2021).

UNICEF. 2021. History of Child Rights. Available online: https://www.unicef.org/child-rights-convention/history-child-rights (accessed on 27 November 2021).

Voronov, Maxim, and Jefferson A. Singer. 2002. The myth of individualism-collectivism: A critical review. *Journal of Social Psychology* 142: 461–80. [CrossRef]

Wamser-Nanney, Rachel, and Claudia L. Campbell. 2020. Predictors of parenting attitudes in an at-risk sample: Results from the LONGSCAN study. *Child Abuse and Neglect* 99: 104282. [CrossRef]

Wong, Y. Joel, Shu-Yi Wang, and Elyssa M. Klann. 2018. The emperor with no clothes: A critique of collectivism and individualism. *Archives of Scientific Psychology* 6: 251–60. [CrossRef]

Yuan, Shuei, and Haoran Chu. 2021. Vaccine for yourself, your community, or your country? Examining audiences' response to distance framing of COVID-19 vaccine messages. *Patient Education and Counseling*. [CrossRef] [PubMed]

Article

Characterizing Parent–Child Interactions in Families of Autistic Children in Late Childhood

James B. McCauley and Marjorie Solomon

1   Department of Psychology, Saint Mary's College of California, Moraga, CA 94575, USA
2   Department of Psychiatry and Behavioral Sciences, UC Davis MIND Institute, Sacramento, CA 95817, USA; marsolomon@ucdavis.edu
*   Correspondence: jbm16@stmarys-ca.edu

Abstract: Parent–child interactions are influential to a wide range of positive developmental processes in neurotypical children, yet contributions to our understanding of these interactions using observational methods in families of children on the autism spectrum are lacking. The aim of the current study is to investigate how autism symptoms might impact these interactions. We use a family discussion task to: (1) compare families of autistic children aged 8–12 years ($n = 21$) to families of typically developing children ($n = 21$, matched on age and cognitive abilities) on the observed levels of supportive and directive behaviors in the parent–child relationship, and (2) examine the associations between parent–child interaction characteristics and child functioning. Results showed no differences in the observed levels of supportive behavior exhibited by parents, but significantly less supportive behavior in autistic children compared to neurotypical children. In addition, parents of autistic children had higher levels of observed directive behavior compared to parents of neurotypical children. Levels of supportive behavior in parents and autistic children were negatively associated with child ADHD symptoms. Findings reinforce literature on younger children describing positive parenting characteristics and further rebuke historical accounts of negative parenting qualities of parents of autistic children.

Keywords: parent–child interactions; autism spectrum disorder; late childhood; mental health

1. Introduction

The 21st century has seen significant advancements in understanding how to best support autistic individuals (a preferred term by autistic adults and parents, see Kenny et al. (2015)), yet, apart from intervention research, there has been surprisingly little research devoted to understanding the characteristics of social support that parents provide. Autistic individuals experience social communication difficulties that are evident across development (American Psychiatric Association 2013), and starting in the late 20th century, we developed evidence-based interventions that help improve social, communication, and adaptive skills. By the 21st century, many behavioral interventions occurred in the family home, and some began shifting their focus to training parents as mediators of these interventions (e.g., Nevill et al. 2018; Pickles et al. 2016). Many parents of autistic children have become experts on their children's developmental strengths and challenges, how to manage difficult behaviors, and how to advocate for their children to receive appropriate services. Parents have gained new tools and a better understanding of autism, but how these multiple parenting roles might affect parent–child interactions is unclear. Parents may have gained better insight into the needs of their children, perhaps increasing opportunities and exhibitions of supportive behavior, or perhaps their increased managerial parenting roles might challenge or change the types of support they display. In the current study, we investigate whether families of autistic children can be characterized similarly to families of neurotypical youth in late childhood (ages 8 to 12). This will help us advance our fundamental knowledge of parent-child interactions just prior to adolescence. In

addition, our study is unique in using observation methods to study interactions during late childhood; observational methods have previously been using only in families with autistic children under age 5 (e.g., Blacher et al. 2013). We also investigate how these patterns are related to child characteristics and functioning. This study has the potential to help parents gain insights on how they provide support to their autistic children and may help service providers gain insights on how to better scaffold parent behaviors in consideration of the impact on parent–child relationships.

1.1. Theoretical Considerations in the Study of Families of Children on the Autism Spectrum

In the 21st century, research has extensively documented several impacts that autism has on family functioning, much of which concludes with urgent considerations for parents' mental health. Particularly, parents of autistic children are more likely to report feeling more parenting stress than parents of neurotypical youth and parents of children with other developmental delays, such as Down syndrome (e.g., Abbeduto et al. 2004; Estes et al. 2009; Bristol and Schopler 1983). The reasons for increased stress compared to other families of children with developmental disabilities is unclear, but guilt in the context of the historical precedent of blame on parents for causing autism (Kuhn and Carter 2006), a lower frequency of rewarding behaviors exhibited by autistic children, such as smiling and laughing with parents (Kasari et al. 1990), and the presence of challenging behaviors associated with autism (Lecavalier et al. 2006), have all been proposed as potential mechanisms for increased stress.

Much of the contemporary literature on families of autistic children describes how autism influences parent mental health and family routines. However, we need more data on how autism symptoms or the symptoms of associated conditions, such as anxiety or ADHD symptoms, might influence family processes, such as the quality of parent–child relationships or parent–child interactions. The social communication symptoms central to autism are manifested as limited joint engagement, eye contact, imitation, and/or interest in social play routines in children under 5. In later childhood, adolescence, and adulthood, these symptoms can also include difficulties understanding and relating to emotions, engaging in reciprocal interactions, and/or relating to the points of view of others. Some of these symptoms are related to challenges parents experience when interacting with their children. For example, autistic children display less effective communication and fewer expressions of enjoyment with their parents (Beurkens et al. 2013) and have fewer positive emotions and more negative emotions as reported by parents (Capps et al. 1993; De Pauw et al. 2011). Some of these difficulties may influence the development of less positive parent–child interaction characteristics and relationships. Parents might feel discouraged after their repeated attempts to foster engagement during interactions which do not lead to displays of positive affect in their children, which may result in increased displays of negativity from a parent. In turn, their children may respond to these changes in parent behavior by displaying more challenging behaviors, creating a negative recursive pattern within the relationship. Yet, research on attachment demonstrated that the attachment relationship between parents and younger children is not affected much by autism symptoms. Young autistic children displayed more comfort-seeking behaviors and physical contact with their parents after separations than with strangers, and most autistic children did not differ from children with other developmental disorders in terms of behavioral evidence of secure or insecure attachment classifications (Capps et al. 1994; Sigman and Ungerer 1984; Rogers et al. 1991), although a minority do not react to separation from or reunion with caregivers (Grzadzinski et al. 2014).

While autism symptoms do not appear to impact attachment for most children, there remains a concern that increased parenting stress itself can lead to negative interaction patterns later in development. Similar to the mechanism by which economic stress undermines a parent's ability to maintain positive interactions with neurotypical children (see Masarik and Conger 2017), some of the behavioral challenges exhibited by autistic children may undermine parent coping skills and supportive behavior across time (Schiltz

et al. 2018). Over time, the behavioral challenges have the potential to develop coercive cycles of parent–child interactions, in which parent and child behaviors have been shaped into stable patterns of negativity, see Patterson (1982). As an example, longitudinal studies have demonstrated that parents of autistic children report increases in negative controlling behavior on days when they feel more parenting stress or after their children display high levels of externalizing behaviors, but this increased negative control is also related to more negative child adjustment and parent functioning (De Clercq et al. 2021; Dieleman et al. 2017, 2019). These findings highlight critical challenges for parents, but we need to understand the parent–child interaction beyond parent reports of relationship quality and parenting behaviors via questionnaires.

1.2. The Function of Parent–Child Interactions in Late Childhood

In late childhood, neurotypical children are increasingly able to get support from caregivers who are emotionally, but not always physically, present (Bosmans and Kerns 2015). Warmth and support in the parent–child relationship has been associated with fewer externalizing behaviors (Goldstein et al. 2005; Rothenberg et al. 2020), attenuated relations between peer stressors and depressive symptoms (Healy and Sanders 2018; Stice et al. 2004), and improved peer relationships (Flynn et al. 2018). In families characterized by low levels of warmth or high degrees of hostility, neurotypical adolescents engage with more deviant peers (Benson and Buehler 2012) and are at risk of the development of anxiety and depression (Lippold et al. 2021; Sturge-Apple et al. 2006). Neurotypical children benefit from having supportive parents with whom they can freely discuss problems, but who also help them make and enact their own decisions, which is known as "psychological autonomy-granting" (Benito-Gomez et al. 2020; Steinberg 2001).

Can we describe a sensitive and supportive parent of an autistic child similarly to sensitive parents of neurotypical youth in late childhood? Supportive behavior, evidenced by warmth and responsiveness, is universally beneficial for children's development. In research on autism, studies have demonstrated robust longitudinal associations between supportive parenting and positive adjustment for autistic children (De Clercq et al. 2019). However, how much should parents of autistic children emphasize psychological autonomy in the context of the parent–child relationship? Parental directive behaviors are attempts to shape children's behaviors or to increase compliance (Ispa et al. 2013). These behaviors might seem intrusive to neurotypical children's autonomy, but may be appropriate for autistic children. Autistic children may need more direct instruction from parents on skills necessary for autonomy in late childhood, such as social and self-regulatory skills, compared to neurotypical children. Freeman and Kasari (2013) found that increased directive behaviors from parents, taught in the context of early intervention, resulted in increased joint engagement in younger autistic children during play. However, very little is known about the appropriateness or characteristics of directive behaviors for older autistic children, and it may be the case that high levels of parent directive behavior could limit opportunities for learning independence. Likely, there are variations from family to family that could be influenced by the severity of autism symptoms or symptoms of co-occurring conditions, such as ADHD, and we might expect higher levels of these symptoms to elicit increased directive behaviors in parents as they try to maintain a social interaction.

1.3. Current Study

There have been limited attempts to assess the parent–child interactions or relationships in families of autistic children outside of early childhood. Some studies have employed questionnaires, (e.g., Chandler and Dissanayake 2014; Maljaars et al. 2014; De Clercq et al. 2019), and several other studies have used the Five Minute Speech Sample (FMSS; e.g., Smith et al. (2008)), in which a parent describes their child uninterrupted for five minutes (Magaña et al. 1986). The FMSS is typically used to measure parent levels of expressed emotion, which consists of critical, hostile, or emotionally over-involved attitudes, and is a metric of an adverse family environment. The FMSS can also be coded for parental warmth,

consisting of positive and supportive statements about their children. While questionnaires can help to establish how both parents and children perceive their relationship, they can be biased and are limited portrayals of relationships. In addition, the FMSS, with a long history of use in psychiatric populations, offers a rich description of parent emotions in the context of the parent–child relationship, but does not allow for conclusions to be drawn about how parents and children interact. Using the FMSS (Magaña et al. 1986), studies have consistently found that mothers of autistic adolescents have high levels of warmth and praise and low levels of criticism when discussing their children, and that warmth is related to reductions in co-occurring externalizing and internalizing symptoms (Greenberg et al. 2006; Smith et al. 2008). However, as the FMSS is coded from parent interviews, there are concerns that these interviews can be biased in studies of autism or other developmental disabilities (Benson et al. 2011).

Observations of parent–child interactions are ideal for capturing both child and parent behavior in the context of the relationship (Acock et al. 2005). One observational measure used in neurotypical populations and in populations at risk for depression is the Iowa Family Rating Scales (IFIRS) (Melby et al. 1998). This rating scale, which is used to code a structured parent–child discussion task, can provide measures of parent and child interactive behaviors, including supportive behavior and directive behavior.

This study uses the IFIRS to examine interaction patterns across parents of neurotypical and autistic children. We posed three main research questions: (1) Do parent–child interaction characteristics differ between families of neurotypical and autistic children in late childhood when measured using the observer-based IFIRS coding? (2) Is there concordance between child and parent interaction characteristics during the discussions? (3) How do interaction characteristics relate to child autism symptoms and symptoms of co-occurring conditions within families who have autistic children?

For our first research question, we hypothesize there will be minimal differences in levels of support and warmth between parents of neurotypical youth and parents of autistic youth based on previous research showing minimal to no differences on parent behavior using observational methods in children under 5 (Blacher et al. 2013). We hypothesize that autistic children would display less overall supportive behavior compared to neurotypical children (e.g., Beurkens et al. 2013). We also hypothesize that parents of autistic children would display more directive behaviors compared to parents of neurotypical children due to increased need for scaffolding during a structured activity. Together, these data would provide rich contemporary data on the interaction characteristics of families of autistic children in late childhood.

For our second research question, we hypothesize that parent and child characteristics within families would be positively correlated, based on past evidence in intervention studies (Solomon et al. 2008). These associations represent a potential opportunity to promote social skill development—if parent and child values are associated, promotions of parent levels of supportive behavior can hopefully lead to increased displays of child levels of supportive behavior.

For our third research question, we hypothesize there to be negative associations between elements of supportive behavior in parent–child interactions and symptoms of autism, anxiety, depression, and ADHD, based on research on adolescents (Greenberg et al. 2006; Smith et al. 2008). Finally, we hypothesize that parent directive behavior will be positively associated with elevated symptoms of autism and co-occurring conditions, including depression, anxiety, and ADHD in children. Although cross-sectional, these associations may suggest either a need for increased scaffolding, or alternatively suggest there may be consequences to high degrees of parental directive behavior in autistic childhood at this point in development.

2. Method

2.1. Participants

Participants for this study were recruited as part of an ongoing study examining language, social, and cognitive functioning in autistic children and neurotypical children. Children aged 8 to 12 were recruited into the study if their parents reported either a previous diagnosis of autism or no known psychiatric disorder, and if their parents reported adequate verbal abilities for the assessment battery (e.g., can have a conversation with peers). Participants were recruited from the research clinic at the UC Davis MIND Institute, community education events, and local schools.

After enrollment into the study, the diagnosis of autism was confirmed by clinicians using the Autism Diagnostic Observation Schedule, 2nd edition (ADOS-2) (Lord et al. 2012), and further supported by parent ratings on the Social Communication Questionnaire (Rutter et al. 2003). In addition, children were included in the study if their standard score on the General Conceptual Ability was above 70, measured by the Differential Ability Scales, Second Edition (DAS-II) (Elliott 2007).

The current study consists of 42 subjects (21 with confirmed diagnosis of autism, 21 with neurotypical development) matched on age and general intellectual abilities measured by the DAS-II (See Table 1 for a summary of subject and family demographic information). Participants were mostly boys at a 1:4–1:5 ratio, reflective of the proportions of boys to girls diagnosed with autism in the US (Baio et al. 2018). In addition, there were no significant differences between groups on family living situation, family marital status, or annual family income. This research was conducted in compliance with the Institutional Review Board and written consent and assent were obtained from parents and participants at each visit.

Table 1. Child and Family Demographics.

	Autism (*n* = 21)	Neurotypical (*n* = 21)	*p*-Value
Males (%)	18 (86%)	20 (95%)	0.37
Chronological Age (SD)	10.10 (1.40)	10.42 (1.37)	0.46
DAS-II Verbal (SD)	102.57 (22.73)	108.67 (11.27)	0.28
DAS-II Nonverbal (SD)	98.71 (18.90)	101.00 (10.41)	0.63
DAS-II GCA (SD)	102.24 (18.78)	107.86 (11.60)	0.25
ADOS-2 CSS	6.52 (1.60)	NA	
Race/Ethnicity (%)			
Hispanic/Latino	2 (9.5%)	2 (9.5%)	
Asian	0 (0%)	2 (9.5%)	
Black/African American	3 (14.3%)	3 (14.3%)	
Native Hawaiian/Pacific Islander	1 (4.8%)	1 (4.8%)	
Caucasian	19 (90%)	17 (81%)	
Other	3 (14.3%)	2 (9.5%)	
Missing	1 (4.8%)	2 (9.5%)	
Mothers in Task (%)	20 (95.2%)	20 (95.2%)	
Child Living with Both Biological Parents (%)	15 (71.4%)	15 (71.4%)	
Parents Married (%)	16 (76.2%)	15 (71.4%)	
Annual Family Income (%)			

Table 1. *Cont.*

	Autism (*n* = 21)	Neurotypical (*n* = 21)	*p*-Value
Under $30 K	1 (4.8%)		
$30–$49 K	3 (14.3%)		
$50–$74 K	3 (14.3%)		
$75–$99 K	2 (9.5%)		
$100–$ 149 K	6 (28.6%)		
Over $150 K	5 (23.8%)		
Missing	1 (4.8%)		

Note: DAS-II = Differential Ability Scales, Second Edition, ADOS = Autism Diagnostic Observation Schedule, CSS = Calibrated Severity Score. Participants were allowed to select multiple race and ethnicity choices. *p*-values represent significance from independent samples t-tests for continuous variables. Mothers in Task describes the percentage of parents observed interacting with their children who were mothers of the participants (the remaining parents who were observed were biological fathers).

2.2. Procedure

Children and one of their parents (over 95% were mothers) came to the laboratory to complete a battery of cognitive, language, diagnostic measures, and questionnaires. Parents completed questionnaires while standardized assessments were administered to children. In addition, the parent and child were brought to a comfortable room with couches and a table where they were videotaped engaging in a structured discussion. Parents and children sat at a table near each other and were given a set of 28 cards to read and were asked to discuss the questions on the cards and continue talking until the examiner returned in 25 min. The cards contained topics such as chores, discipline, friends, and emotional events within the past year.

2.3. Measures

Each of the structured discussions was videotaped and coded using the Iowa Family Interaction Rating Scales (IFIRS) (Melby et al. 1998), which focus on the frequency and intensity of observable behaviors from each member of the dyad towards the other. Both verbal and nonverbal behaviors were considered for each code. Three coders received 20 h of training and needed to achieve 90% absolute agreement on five training videos before coding the current data set. To assess inter-rater reliability, 25% of the discussions were randomly selected to be coded by a second rater. In addition, reliability was assessed on videos when the main coder had questions or concerns about the determination of the behavior. In the current study, observed inter-rater reliability was adequate (mean ICC value = 0.86).

IFIRS: Supportive Behavior. Supportive behavior is a composite variable of seven scales from the IFIRS which were previously used in longitudinal examinations on family processes (Ackerman et al. 2011; Kim et al. 2001; Dinero et al. 2008). The scales used were warmth/support, communication, listener responsiveness, and prosocial, hostility (reverse coded), angry coercion (reverse coded), and antisocial (reverse coded). Warmth/support describes expressions of concern, empathy, or appreciation between family members. Communication describes how effectively partners convey ideas. Listener Responsiveness describes partner attentiveness and the ability to express interest. Prosocial describes cooperative and helpful behaviors. Hostility was coded as hostile, disapproving, rejecting, and critical behavior expressed towards the other family member. Angry coercion was indicated by behaviors that attempt to control or change the other family member's behavior with threats, blame, or hostile behaviors. Antisocial was indicated by behaviors that were self-centered, defiant, insensitive, or resistant. These scales are rated on a 9-point scale ranging from 1 (not at all characteristic) to 9 (mainly characteristic) separately for both family members by accounting for the frequency and intensity of the behaviors observed. They were averaged to compute the composite variable. Although the scales used can be separated into positive and negative interaction characteristics, we elected to combine these aspects of the interactions to produce a positive-oriented scale following the procedures

of past literature (e.g., Dinero et al. 2008), and due to the results of the exploratory factor analyses. The composite scale of supportive behavior had adequate internal consistency (parent α = 0.80; child α = 0.87).

IFIRS: Directive Behavior. Directive behavior is a composite variable of two scales from the IFIRS: dominance and lecture/moralize. Past research has defined a parent 'control' variable generated from the IFIRS dominance scale (e.g., Anderson et al. 2015), but we included the lecture/moralize scale in our directive behavior composite due to the conceptual similarities between the two scales. Dominance was coded as behaviors that served to control, influence, or dominate the opinions, actions, or points of view of others during the interactions. Lecture/Moralize was coded as the degree to which individuals presented information to partners in an intrusive, didactic, or overly pushy manner that did not allow for constructive conversation. The composite variable of directive behavior had adequate internal consistency (α = 0.69) but was just under the commonly used value for desirable reliability of 0.70.

Child Functioning. To assess child maladaptive behaviors and social problems, parents completed the Child Behavior Checklist (CBCL) for school-aged children (Achenbach and Rescorla 2001). The CBCL is a measure of child behavioral problems and functioning. This study uses three of the available scales from the CBCL designed for children aged 6 to 18: Anxiety Problems, Depression Problems, and Attention Deficit Hyperactivity Disorder (ADHD) Problems. These scales were developed according to the Diagnostic and Statistical Manual of Mental Disorders (DSM) diagnostic criteria for anxiety, depression, and ADHD. These scales are scored via a computer scoring program to produce standard scores and have adequate internal consistency (Anxiety: α = 0.79, Depression: α = 0.81, ADHD: α = 0.85). The CBCL has been frequently used and validated in samples of autistic children (e.g., Havdahl et al. 2016).

Autism symptoms were assessed by a licensed clinical psychologist using the ADOS-2 (Lord et al. 2012). The clinical psychologist was certified as research reliable on the administration and scoring of the ADOS-2. The ADOS-2 is a semi-structured assessment between a clinician and a child consisting of a variety of different observational tasks the child is asked to participate in. It is widely considered the most valid and objective assessment of the autism diagnosis and it produces two domain scores, Social Affect and Restrictive and Repetitive Behavior, and a Calibrated Severity Score. Social Affect describes the extent to which a child has social-communication difficulties, such as the lack of appropriate social responses. Restrictive and Repetitive Behavior is characterized by the presence of abnormal sensory or motor behavior (e.g., hand flapping), or a child's discussion of a circumscribed interest at length. The Calibrated Severity Score yields a measure of autism spectrum-related symptoms that can be used to compare children with similar language skills and age. Within the current study, all children in the ASD group received the ADOS-2, Module 3. All children who were recruited as part of the autism group met the criteria for ASD on the ADOS-2. Children recruited into the neurotypical group were not administered the ADOS-2.

2.4. Data Analysis

Exploratory Factor Analysis on IFIRS Codes. Previous research has used composite scores and single-scale scores from the IFIRS (e.g., Anderson et al. 2015; Dinero et al. 2008) that were identified using factor analysis in samples consisting of families that did not have children on the spectrum. Due to slight changes in our scale composites and a different population, exploratory factor analyses were conducted on the IFIRS codes for parents and children separately to validate our selection of composite scores. The Kaiser–Meyer–Olkin (KMO) test of sampling adequacy (parents, KMO = 0.81; children, KMO = 0.79) and Bartlett's test of sphericity (parents, $\chi^2(36)$ = 305.31, $p < 0.001$; children $\chi^2(36)$ = 243.78, $p < 0.001$) both indicated the adequacy of the factor model for the samples (Gorsuch 1990). Principal axis factoring was applied to 8 scales for each parent and each child. Examination of the scree plot led us to retain 2 factors for parents (explaining 77% of the total variance)

and 2 factors for children (explaining 71% of the total variance). Oblimin rotation was used as there was reason to expect that the factors could be correlated. Due to the small sample, factor loadings above 0.5 were used in the interpretation of the factor output (Stevens 1992). The results for both parent and child data revealed similar factor structures (see Supplementary Table S1). For both parent and child data, the supportive behavior factor consisted of high positive loadings for warmth, communication, listener responsiveness, and prosocial scales and high negative loadings for hostility, angry coercion, and antisocial scales. The directive behavior factor consisted of high positive loadings for the dominance and lecture/moralize scales.

Supportive Behavior Comparisons. Multilevel modeling was used to examine the comparisons between patterns of supportive behavior between parents or children by diagnostic group. The data were coded to identify family members within dyads (parent or child) for estimation as a fixed effect, and each dyad was given a unique numerical identifier that was applied to both individuals to be estimated as a random effect. Diagnostic group (autism or neurotypical) was also estimated as a fixed effect. The interaction between the fixed effect of family member and diagnostic group was then examined to explain the variance of supportive behavior coded from the IFIRS. To be conservative with the small sample size, the degrees of freedom were approximated using the Kenward–Roger adjustment. Due to the high levels of observed right skewness in the supportive behavior composite, the model was fitted to a gamma distribution, using the following equation using PROC GLIMMIX in SAS 9.4:

$$\text{SuppBeh}_{ij} = b0_i + b1_i \times \text{Diagnostic Group}_{ij} + b2_{ij} \times \text{Person}_{ij} + b3_i \times \text{Diagnostic Group}_i \times \text{Person}_{ij} + \varepsilon_{ij}$$

where Diagnostic Group = 0 for neurotypical, 1 for autism for individual i in dyad j, Person = 0 for Parent, 1 for Child.

Directive Behavior Comparisons. We used an ANOVA to examine diagnostic group differences on directive behavior exhibited by parents. To consider the likelihood of child interaction characteristics accounting for this group difference, we ran an ANCOVA including child supportive behavior as a covariate.

Associations with Child Functioning. We first compared the mean levels of anxiety, depressive, and ADHD problems between autistic and neurotypical children using t-tests. Pearson correlations were used to test the associations between the family interaction characteristics and child functioning variables. One participant did not fully complete the questionnaires and was excluded from the correlation analyses examining the associations between interaction characteristics and child characteristics. All data analyses were conducted using SAS, Version 9.4 (SAS 9.3) and SPSS, Version 25.

3. Results

3.1. Do Parent–Child Interaction Characteristics Differ by Diagnostic Group?

Supportive Behavior. Table 2 contains the means on the two IFIRS composite variables by family member and diagnostic group. There was a significant interaction between the fixed effect of family member and diagnostic group ($F(1,40) = 11.69$, $MSE = 0.05$, $p = 0.001$). The mean level of observed supportive behavior was significantly lower in autistic children as compared to parents of autistic children ($t(40) = -5.12$, $p < 0.001$, $d = -2.19$), neurotypical children ($t(69.01) = -2.76$, $p = 0.007$, $d = -1.44$), and parents of neurotypical children ($t(69.01) = -2.98$, $p = 0.004$, $d = -1.67$). There was no significant difference between parents of autistic children and parents of neurotypical children ($p = 0.30$), and there was no significant difference between the means of parents of neurotypical children and neurotypical children on the levels of supportive behavior ($p = 0.59$).

Table 2. Child and Parent IFIRS Composite Means by Diagnostic Group.

IFIRS Composite	Autistic Youth	Parents of Autistic Youth	Neurotypical Youth	Parents of Neurotypical Youth
Supportive Behavior	6.48 (1.42) [a,b,c]	7.99 (0.78) [a]	7.48 (0.87) [b]	7.63 (1.40) [c]
Directive Behavior	-	4.60 (1.82) [g]	-	3.48 (1.61) [g]

Note: Matched letters denote significant pairwise differences from univariate multilevel models ($p < 0.05$).

Directive Behavior. Parents of autistic children had higher observed levels of directive behavior than parents of neurotypical children ($F(1,40) = 4.45$, $MSE = 2.95$, $p = 0.04$, $d = 0.65$). The diagnostic group difference was significant after including child supportive behavior as a covariate: $F(1,39) = 4.69$, $MSE = 2.80$, $p = 0.04$, $d = 0.62$.

Associations between Parent and Child Interaction Characteristics. Within both diagnostic groups, there was a strong positive correlation between child and parent supportive behavior (Autism: $r(19) = 0.54$, $p = 0.01$; Neurotypical: $r(19) = 0.49$, $p = 0.02$). There was no significant relation between child supportive behavior and parent directive behavior in either group (Autism: $r(19) = -0.29$, $p = 0.21$; Neurotypical: $r(19) = -0.26$, $p = 0.25$).

3.2. Are Interaction Characteristics Related to the Characteristics of Children with ASD?

Table 3 contains the means and standard deviations of the child functioning variables for children on the autism spectrum and neurotypical children. Autistic children had higher levels of anxiety problems, depression problems, and ADHD problems, as measured by the CBCL.

Table 3. Means of Child Functioning Variables by Diagnostic Group.

	Autism	Neurotypical	*p*-Value
CBCL—Anxiety Problems	60.15 (9.18)	52.11 (3.29)	0.001
CBCL—Depression Problems	58.50 (8.59)	51.33 (1.94)	0.001
CBCL—ADHD Problems	65.50 (9.50)	53.11 (5.47)	<0.001

Note: CBCL = Child Behavior Checklist. All measures are parent-reported.

Child Characteristics and Parent Interaction Characteristics. Table 4 contains the correlation values between interaction variables and child functioning variables by family member. There were negative associations at a medium effect size between parent supportive behavior and ADHD problems ($r(18) = -0.37$, $p = 0.11$) and between parent supportive behavior and anxiety problems from the CBCL ($r(18) = -0.31$, $p = 0.18$), although neither was statistically significant. There was a significant relation between parent directive behavior and anxiety symptoms ($r(18) = 0.48$, $p = 0.03$).

Table 4. Pearson Correlations Between IFIRS and Characteristics of Children on the Autism Spectrum.

	Parent Supportive Behavior	Child Supportive Behavior	Parent Directive Behavior
ADOS-2 Total Score	0.07	−0.35	−0.19
CBCL Anxiety	−0.31	0.09	0.48 *
CBCL Depression	0.11	0.15	0.01
CBCL ADHD	−0.37	−0.49 *	−0.01

Note: ADOS-2 = Autism Diagnostic Observation Schedule; RRB = Repetitive and Restrictive Behaviors; CSS = Calibrated Severity Score; CBCL= Child Behavior Checklist. All measures parent-reported. * $p < 0.05$; $n = 20$.

Child Characteristics and Child Interaction Characteristics. There was a non-significant association with a medium effect size between the ADOS−2 total score and child supportive behavior ($r(18) = -0.35$, $p = 0.12$), indicating higher observed child supportive behavior was related to fewer autism symptoms, as rated by a clinician. In addition, there was a neg-

ative association between ADHD problems and child supportive behavior ($r(18) = -0.49$, $p = 0.02$).

4. Discussion

The 21st century has brought increased understanding of autism and evidenced-based treatments, but descriptive data on how autism might affect parent–child relationships in late childhood have been missing. While some of the challenges that parents of autistic children experience in their mental health have been explored, the current study expands upon our awareness of the support that parents provide their autistic children, and potential challenges they may face. Our aims were to (1) test whether parent–child interaction characteristics differ between families of neurotypical and autistic children in late childhood when coded from observations, (2) to investigate the concordance between child and parent characteristics, and (3) to examine how interaction characteristics relate to child autism symptoms and symptoms of co-occurring conditions.

There were no discernable differences between parents of autistic children and parents of neurotypical children in the levels of supportive behavior, a composite of positive oriented scales, such as warmth/support and listener responsiveness, and reverse coded negative oriented scales, such as hostility and angry coercion. These results resemble evidence from other studies finding no differences in the security of attachment, perceptions of parental availability, and positive parenting in families of autistic children compared to families of neurotypical children in middle to late childhood (e.g., Chandler and Dissanayake 2014). This pattern of results also echoes the historical and contemporary literature on parents of younger autistic children which has demonstrated only minor differences in the percentages of parent–child dyads with secure attachments as compared to families of neurotypical children (e.g., Rogers et al. 1991; Rutgers et al. 2007; Teague et al. 2017). The continuation of these findings into late childhood is a testament to the resiliency of parents of autistic children and their ability to foster positive developmental environments, often in the context of high levels of stress. Although empirical studies in the 20th century debunked the historical misconceptions that low levels of parental warmth might cause autism, colloquially known as the 'refrigerator mother theory', parents continue to feel stigmatized for their parenting behavior from community members and extended family members in terms of their parenting, especially when high amounts of externalizing symptoms are exhibited by their children (Dale et al. 2006; Gray 2002; Neely-Barnes et al. 2011). The current data offer a compelling portrayal of warmth, support, and responsiveness in parents of autistic children, and further rebuke historical misconceptions of low parenting quality in this population.

The symptoms of autism were not associated with parent supportive behavior. Theoretically, the symptoms of autism might complicate positive interaction patterns if they interfere with displays of engagement, reciprocity, and positive affect. In addition, many studies have documented high amounts of parenting stress in families of children on the autism spectrum, which could undermine a parent's ability to positively engage over time. However, our data show that parents of autistic children had similar levels of supportive behavior to parents of neurotypical children, often in the presence of lower levels of supportive behavior exhibited by their children (although autistic children may display supportive behavior differently to their neurotypical peers). Supportive behavior was also strongly correlated between parents and children. This finding is consistent with studies that have employed observations of the parent–child dyad in families of autistic children. Increased parental positive affect through intervention has been associated with subsequent increases in children's positive affect (Solomon et al. 2008; Siller and Sigman 2008; Freeman and Kasari 2013). If longitudinal evidence corroborates the reciprocating effects of supportive parent–child interaction characteristics, this evidence will further suggest that similar to interventions for younger autistic children (e.g., Goods et al. 2013), coaching supportive behaviors in parents may also be effective in augmenting children's social behavior during late childhood.

Previous longitudinal studies on autistic adolescents have found bidirectional associations between indices of the parent–child relationship, as measured from the FMSS and mental health concerns, including internalizing symptoms, externalizing symptoms, and autism symptoms, (e.g., Orsmond et al. 2006; Smith et al. 2008; Woodman et al. 2015). Although limited due to our small sample size and the cross-sectional design, our correlation results support this past literature. We found that both parent and child supportive behavior was significantly associated with fewer ADHD symptoms rated by parents. This finding suggests that a child's ability to regulate their attention may be associated with supportive characteristics of parent–child relationships. Perhaps, lower levels of warmth are exhibited by parents who are trying to get their child to focus on the structured discussion task. Alternatively, children with higher levels of ADHD symptoms may have difficulties attending to and communicating with their parent in a structured discussion, which would negatively impact the frequency of supportive behaviors children exhibit. In addition, our results resemble past research that has found that ADHD symptoms can increase negativity in the parent–child relationship in children without autism (e.g., Lifford et al. 2008) and, therefore, suggest similar mechanisms are plausible in families of autistic children. Future studies should examine parent–child interactions across structured and unstructured tasks to obtain a more holistic picture of these characteristics in late childhood.

Within our sample, there were significantly higher levels of directive behavior in parents of autistic children compared to parents of neurotypical children. Higher levels of parent directive behavior were associated with higher levels of child anxiety problems, but not depression, for children on the autism spectrum. This finding is preliminary and future studies are needed to understand the temporal relationship between anxiety symptoms and parent directive behavior. Past literature on neurotypical youth demonstrated that high levels of psychological control exhibited by parents during preadolescence were associated with higher levels of depression and anxiety in adolescence (Pettit et al. 2001). The reasoning used in these findings is that a child's budding autonomy may be thwarted by an intrusive parent, thus shaping their insecurities and anxiety. However, our definition of directive behavior is different to the concept of "psychological control", which contains characteristics of hostility (see Barber and Harmon (2002)). Our construct of directive behavior, which was a composite of the dominance and lecture/moralizing codes from the IFIRS, may not be associated with as many negative outcomes as a conceptual definition that includes hostility. Alternatively, parents may be providing more guidance when their children are anxious, in an effort to help alleviate these symptoms, which may be an effective approach. Many early interventions and parent-mediated therapy programs employ guided support and scaffolding to teach social, communication, and adaptive skills (e.g., Pickles et al. 2016), so autistic children appear to benefit from more directive parenting than neurotypical children. Given that anxiety is a concern for an estimated 42% of autistic adolescents with ASD (Simonoff et al. 2008), it will be important to continue to investigate the relation between parent directive behavior and anxiety to better understand how these characteristics are related over time.

Strengths and Limitations

Several limitations must be considered in the current results. First, the small sample size limit the generalizability of this study and our ability to make conclusions about results involving correlations. The participants had average levels of intellectual functioning and the majority were boys, so the current pattern of findings may not apply to families of autistic children with intellectual disability or to families of autistic girls. The cross-sectional design of the current study also limits our ability to draw conclusions about directionality. In addition, although we were able to gather rich family demographic information, we were unable to examine commonly known moderators of family processes in neurotypical development, including family income, race and ethnicity, and the gender of parents and children. Parenting and parent–child interactions likely have influence on the trajectory of autism symptoms and conditions that co-occur with autism. Researchers have called for

the examination of processes that moderate the relations between etiological risk factors and the severity of autism symptoms (Mundy et al. 2007), and parent–child interactions have been identified as a promising influence on the development of variability observed within the population (see McCauley et al. (2019)). Future research should investigate how varying family contexts moderate interaction characteristics and autism symptoms across time in families of autistic children.

In addition, the study does not address the possibility of genetic influences between children and parents, as we had no measure or genetic makeup or any measures of relevant symptoms in parents. For example, as autism and anxiety both have genetic etiological contributions, how parent levels of anxiety or phenotypical autism symptoms relate to the quality of parent–child interactions with their children is unknown. Levels of phenotypic autism symptoms in parents are related to their experience of parenting stress (Ingersoll and Hambrick 2011), but it is possible that these symptoms may create differences on observable interaction characteristics. Additionally, our study was limited by reliance on questionnaire data to examine the associations between child functioning and features of the parent–child interaction.

Our study has several strengths. First, we had a well-characterized sample of autistic children and used robust measures to verify diagnosis. Second, the sample was also matched on age, gender composition, and assessments of cognitive ability to a sample of neurotypical children, allowing us to better specify differences in family interaction characteristics. Third, we used an observational coding scheme that helped discover unique features of interactions that may not be adequately captured on parent-reported questionnaires. We have demonstrated that observational coding methodology is feasible and informative to the study of parent–child relationships in families of autistic children, so future research should strive to incorporate larger samples and more diverse measurements of child characteristics.

5. Conclusions

5.1. Implications for Parenting in the 21st Century

In the 21st century, parenting autistic children requires a balance between providing optimal support and direction. While neurotypical children tend to benefit from support and additional autonomy as they mature, autistic children may benefit from more directive parenting, as compared to neurotypical children, in addition to their parent's support at least into late childhood. This is an important nuance, considering that parents are commonly employed to modify and scaffold their autistic children's behavior through parent intervention programs. Critically, parents in the current study displayed high levels of warmth, engagement, and enjoyment during interactions with their children and these parent interaction characteristics were not associated with autism symptoms. While reports have documented high levels of parenting stress associated with autism, there remains little concern that autism itself instills negative patterns of parent–child interactions.

5.2. Implications for Future Research and Practice

The results of this study have implications for future research and practice. First, we need to better understand how the parent–child relationship in families of autistic children develops, and how families navigate interactions in the presence of social and communication challenges. Second, providers for families of autistic children should understand and emphasize that the developmental needs of autistic children are likely different than the needs of neurotypical youth in terms of parent support and autonomy-granting, and should converse with families about their child's individual needs accordingly.

References

Abbeduto, Leonard, Marsha Mailick Seltzer, Paul Shattuck, Marty Wyngaarden Krauss, Gael Orsmond, and Melissa M. Murphy. 2004. Psychological well-being and coping in mothers of youths with autism, down syndrome, or fragile X syndrome. *American Journal on Mental Retardation* 109: 237–54. [CrossRef]

Achenbach, Thomas M., and Leslie A. Rescorla. 2001. *Manual for the ASEBA School-Age Forms & Profiles*. Burlington: University of Vermont, Research Center for Children, Youth, & Families.

Ackerman, Robert A., Deborah A. Kashy, M. Brent Donnellan, and Rand D. Conger. 2011. Positive-engagement behaviors in observed family interactions: A social relations perspective. *Journal of Family Psychology* 25: 719. [CrossRef]

Acock, Alan C., Manfred H. M. Van Dulmen, Katherine R. Allen, and Fred P. Piercy. 2005. Contemporary and emerging research methods in studying families. In *Sourcebook of Family Theory and Research*. Edited by Vern L. Bengtson, Alan C. Acock, Katherine R. Allen, Peggye Dilworth-Anderson and David M. Klien. Thousand Oaks: Sage Publications, pp. 59–89.

American Psychiatric Association. 2013. *Diagnostic and Statistical Manual of Mental Disorders*, 5th ed. Washington, DC: American Psychiatric Association.

Anderson, Kayla N., Martha A. Rueter, and Richard M. Lee. 2015. Discussions about racial and ethnic differences in internationally adoptive families: Links with family engagement, warmth, & control. *Journal of Family Communication* 15: 289–308. [CrossRef]

Baio, Jon, Lisa Wiggins, Deborah L. Christensen, Matthew J. Maenner, Julie Daniels, Zachary Warren, Margaret Kurzius-Spencer, Walter Zahorodny, Cordelia Robinson Rosenberg, Tiffany White, and et al. 2018. Prevalence of Autism Spectrum Disorder Among Children Aged 8 Years—Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2014. *Morbidity and Mortality Weekly Report* 67: 1–23. [CrossRef] [PubMed]

Barber, Brian K., and Elizabeth Lovelady Harmon. 2002. Violating the self: Parental psychological control of children and adolescents. In *Intrusive Parenting: How Psychological Control Affects Children and Adolescents*. Edited by Brian K. Barber. Washington, DC: American Psychological Association, pp. 15–52.

Benito-Gomez, Marta, Kennesia N. Williams, Amy McCurdy, and Anne C. Fletcher. 2020. Autonomy-supportive parenting in adolescence: Cultural variability in the contemporary United States. *Journal of Family Theory & Review* 12: 7–26. [CrossRef]

Benson, Mark J., and Cheryl Buehler. 2012. Family process and peer deviance influences on adolescent aggression: Longitudinal effects across early and middle adolescence. *Child Development* 83: 1213–28. [CrossRef]

Benson, Paul R., Dave Daley, Kristie L. Karlof, and Dorothy Robison. 2011. Assessing expressed emotion in mothers of children with autism: The Autism-Specific Five Minute Speech Sample. *Autism* 15: 65–82. [CrossRef] [PubMed]

Beurkens, Nicole M., Jessica A. Hobson, and R. Peter Hobson. 2013. Autism severity and qualities of parent–child relations. *Journal of Autism and Developmental Disorders* 43: 168–78. [CrossRef]

Blacher, Jan, Bruce L. Baker, and Araksia Kaladjian. 2013. Syndrome specificity and mother–child interactions: Examining positive and negative parenting across contexts and time. *Journal of Autism and Developmental Disorders* 43: 761–74. [CrossRef]

Bosmans, Guy, and Kathryn A. Kerns. 2015. Attachment in middle childhood: Progress and prospects. *New Directions for Child and Adolescent Development* 2015: 1–14. [CrossRef] [PubMed]

Bristol, Marie M., and Eric Schopler. 1983. Stress and coping in families of autistic adolescents. In *Autism in Adolescents and Adults*. Boston: Springer, pp. 251–278.

Capps, Lisa, Connie Kasari, Nurit Yirmiya, and Marian Sigman. 1993. Parental perception of emotional expressiveness in children with autism. *Journal of Consulting and Clinical Psychology* 61: 475. [CrossRef]

Capps, Lisa, Marian Sigman, and Peter Mundy. 1994. Attachment security in children with autism. *Development and Psychopathology* 6: 249–61. [CrossRef]

Chandler, Felicity, and Cheryl Dissanayake. 2014. An investigation of the security of caregiver attachment during middle childhood in children with high-functioning autistic disorder. *Autism* 18: 485–92. [CrossRef]

Dale, Emily, Andrew Jahoda, and Fiona Knott. 2006. Mothers' attributions following their child's diagnosis of autistic spectrum disorder: Exploring links with maternal levels of stress, depression and expectations about their child's future. *Autism* 10: 463–79. [CrossRef]

De Clercq, Lana, Van der Kaap-Deeder, Lisa M. Dieleman, Bart Soenens, Peter Prinzie, and Sarah S. W. De Pauw. 2019. Parenting and psychosocial development in youth with and without autism spectrum disorder, cerebral palsy, and Down syndrome: A cross-disability comparison. *Advances in Neurodevelopmental Disorders* 3: 220–34. [CrossRef]

De Clercq, Lana E., Lisa M. Dieleman, Jolene van der Kaap-Deeder, Bart Soenens, Peter Prinzie, and Sarah S. W. De Pauw. 2021. Negative Controlling Parenting and Child Personality as Modifiers of Psychosocial Development in Youth with Autism Spectrum Disorder: A 9-Year Longitudinal Study at the Level of Within-Person Change. *Journal of Autism and Developmental Disorders* 51: 2891–907. [CrossRef] [PubMed]

De Pauw, Sarah S. W., Ivan Mervielde, Karla G. Van Leeuwen, and Barbara J. De Clercq. 2011. How temperament and personality contribute to the maladjustment of children with autism. *Journal of Autism and Developmental Disorders* 41: 196–212. [CrossRef] [PubMed]

Dieleman, Lisa M., Sarah S. W. De Pauw, Bart Soenens, Wim Beyers, and Peter Prinzie. 2017. Examining bidirectional relationships between parenting and child maladjustment in youth with autism spectrum disorder: A 9-year longitudinal study. *Development and Psychopathology* 29: 1199–213. [CrossRef]

Dieleman, Lisa M., Bart Soenens, Maarten Vansteenkiste, Peter Prinzie, Nele Laporte, and Sarah S. W. De Pauw. 2019. Daily sources of autonomy-supportive and controlling parenting in mothers of children with ASD: The role of child behavior and mothers' psychological needs. *Journal of Autism and Developmental Disorders* 49: 509–26. [CrossRef]

Dinero, Rachel E., Rand D. Conger, Phillip R. Shaver, Keith F. Widaman, and Dannelle Larsen-Rife. 2008. Influence of family of origin and adult romantic partners on romantic attachment security. *Journal of Family Psychology* 22: 622–32. [CrossRef] [PubMed]

Elliott, Colin D. 2007. *Differential Ability Scales*, 2nd ed. San Antonio: Harcourt Assessment.

Estes, Annette, Jeffrey Munson, Geraldine Dawson, Elizabeth Koehler, Xiao-Hua Zhou, and Robert Abbott. 2009. Parenting stress and psychological functioning among mothers of preschool children with autism and developmental delay. *Autism* 13: 375–87. [CrossRef] [PubMed]

Flynn, Heather Kohler, Diane H. Felmlee, Xiaoling Shu, and Rand D. Conger. 2018. Mothers and fathers matter: The influence of parental support, hostility, and problem solving on adolescent friendships. *Journal of Family Issues* 39: 2389–412. [CrossRef]

Freeman, Stephanny, and Connie Kasari. 2013. Parent–child interactions in autism: Characteristics of play. *Autism* 17: 147–61. [CrossRef] [PubMed]

Goldstein, Sara E., Pamela E. Davis-Kean, and Jacquelynne S. Eccles. 2005. Parents, peers, and problem behavior: A longitudinal investigation of the impact of relationship perceptions and characteristics on the development of adolescent problem behavior. *Developmental Psychology* 41: 401–13. [CrossRef]

Goods, Kelly Stickles, Eric Ishijima, Ya-Chih Chang, and Connie Kasari. 2013. Preschool based JASPER intervention in minimally verbal children with autism: Pilot RCT. *Journal of Autism and Developmental Disorders* 43: 1050–56. [CrossRef] [PubMed]

Gorsuch, Richard L. 1990. Common factor analysis versus component analysis: Some well and little known facts. *Multivariate Behavioral Research* 25: 33–39. [CrossRef] [PubMed]

Gray, David E. 2002. 'Everybody just freezes. Everybody is just embarrassed': Felt and enacted stigma among parents of children with high functioning autism. *Sociology of Health & Illness* 24: 734–49. [CrossRef]

Greenberg, Jan S., Marsha Mailick Seltzer, Jinkuk Hong, and Gael I. Orsmond. 2006. Bidirectional effects of expressed emotion and behavior problems and symptoms in adolescents and adults with autism. *American Journal on Mental Retardation* 111: 229–49. [CrossRef]

Grzadzinski, Rebecca L., Rhiannon Luyster, Amelia Gunn Spencer, and Catherine Lord. 2014. Attachment in young children with autism spectrum disorders: An examination of separation and reunion behaviors with both mothers and fathers. *Autism* 18: 85–96. [CrossRef] [PubMed]

Havdahl, K. Alexandra, Stephen von Tetzchner, Marisela Huerta, Catherine Lord, and Somer L. Bishop. 2016. Utility of the child behavior checklist as a screener for autism spectrum disorder. *Autism Research* 9: 33–42. [CrossRef]

Healy, Karen L., and Matthew R. Sanders. 2018. Mechanisms through which supportive relationships with parents and peers mitigate victimization, depression and internalizing problems in children bullied by peers. *Child Psychiatry & Human Development* 49: 800–13. [CrossRef]

Ingersoll, Brooke, and David Z. Hambrick. 2011. The relationship between the broader autism phenotype, child severity, and stress and depression in parents of children with autism spectrum disorders. *Research in Autism Spectrum Disorders* 5: 337–44. [CrossRef]

Ispa, Jean M., Annamaria Csizmadia, Duane Rudy, Mark A. Fine, Jennifer L. Krull, Robert H. Bradley, and Natasha Cabrera. 2013. Patterns of maternal directiveness by ethnicity among Early Head Start research participants. *Parenting* 13: 58–75. [CrossRef]

Kasari, Connie, Marian Sigman, Peter Mundy, and Nurit Yirmiya. 1990. Affective sharing in the context of joint attention interactions of normal, autistic, and mentally retarded children. *Journal of Autism and Developmental Disorders* 20: 87–100. [CrossRef]

Kenny, Lorcan, Caroline Hattersley, Bonnie Molins, Carole Buckley, Carol Povey, and Elizabeth Pellicano. 2015. Which terms should be used to describe autism? Perspectives from the UK autism community. *Autism* 20: 442–62. [CrossRef]

Kim, Kee Jeong, Rand D. Conger, Frederick O. Lorenz, and Glen H. Elder Jr. 2001. Parent–adolescent reciprocity in negative affect and its relation to early adult social development. *Developmental Psychology* 37: 775–90. [CrossRef]

Kuhn, Jennifer C., and Alice S. Carter. 2006. Maternal self-efficacy and associated parenting cognitions among mothers of children with autism. *American Journal of Orthopsychiatry* 76: 564–75. [CrossRef]

Lecavalier, Leone, Sarah Leone, and James Wiltz. 2006. The impact of behaviour problems on caregiver stress in young people with autism spectrum disorders. *Journal of Intellectual Disability Research* 50: 172–83. [CrossRef] [PubMed]

Lifford, Kate J., Gordon T. Harold, and Anita Thapar. 2008. Parent–child relationships and ADHD symptoms: A longitudinal analysis. *Journal of Abnormal Child Psychology* 36: 285–96. [CrossRef] [PubMed]

Lippold, Melissa A., Andrea Hussong, Gregory Fosco, and Nilam Ram. 2021. Youth internalizing problems and changes in parent–child relationships across early adolescence: Lability and developmental trends. *The Journal of Early Adolescence* 41: 472–97. [CrossRef]

Lord, Catherine, Michael Rutter, Pamela C. DiLavore, Susan Risi, Katherine Gotham, and Somer L. Bishop. 2012. *Autism Diagnostic Observation Schedule: ADOS-2*. Torrence: Western Psychological Services.

Magaña, Ana B., Michael J. Goldstein, Marvin Karno, David J. Miklowitz, Janis Jenkins, and Ian R. H. Falloon. 1986. A brief method for assessing expressed emotion in relatives of psychiatric patients. *Psychiatry Research* 17: 203–12. [CrossRef]

Maljaars, Jarymke, Hannah Boonen, Greet Lambrechts, Karla Van Leeuwen, and Ilse Noens. 2014. Maternal parenting behavior and child behavior problems in families of children and adolescents with autism spectrum disorder. *Journal of Autism and Developmental Disorders* 44: 501–12. [CrossRef] [PubMed]

Masarik, April S., and Rand D. Conger. 2017. Stress and child development: A review of the Family Stress Model. *Current Opinion in Psychology* 13: 85–90. [CrossRef] [PubMed]

McCauley, James B., Peter C. Mundy, and Marjorie Solomon. 2019. Parenting, Family Processes, and Autism Spectrum Disorder. In *Handbook of Parenting*, 3rd ed. Edited by Marc H. Bornstein. New York, NY: Routledge.

Melby, Janet, Rand D. Conger, Ruth Book, Martha Rueter, Laura Lucy, Daniel Repinski, and Laura Scaramella. 1998. *The Iowa Family Interaction Rating Scales*. Ames: Institute for Social and Behavioral Research, Iowa State University.

Mundy, Peter C., Heather A. Henderson, Anne Pradella Inge, and Drew C. Coman. 2007. The modifier model of autism and social development in higher functioning children. *Research and Practice for Persons with Severe Disabilities: The Journal of TASH* 32: 124–39. [CrossRef] [PubMed]

Neely-Barnes, Susan L., Heather R. Hall, Ruth J. Roberts, and J. Carolyn Graff. 2011. Parenting a child with an autism spectrum disorder: Public perceptions and parental conceptualizations. *Journal of Family Social Work* 14: 208–25. [CrossRef]

Nevill, Rose E., Luc Lecavalier, and Elizabeth A. Stratis. 2018. Meta-analysis of parent-mediated interventions for young children with autism spectrum disorder. *Autism* 22: 84–98. [CrossRef]

Orsmond, Gael I., Marsha Mailick Seltzer, Jan S. Greenberg, and Marty Wyngaarden Krauss. 2006. Mother–child relationship quality among adolescents and adults with autism. *American Journal on Mental Retardation* 111: 121–37. [CrossRef]

Patterson, Gerald R. 1982. *Coercive Family Process*. Eugene: Castalia.

Pettit, Gregory S., Robert D. Laird, Kenneth A. Dodge, John E. Bates, and Michael M. Criss. 2001. Antecedents and behavior-problem outcomes of parental monitoring and psychological control in early adolescence. *Child Development* 72: 583–98. [CrossRef]

Pickles, Andrew, Ann Le Couteur, Kathy Leadbitter, Erica Salomone, Rachel Cole-Fletcher, Hannah Tobin, Isobel Gammer, Jessica Lowry, George Vamvakas, and Sarah Byford. 2016. Parent-mediated social communication therapy for young children with autism (PACT): Long-term follow-up of a randomised controlled trial. *The lancet* 388: 2501–09. [CrossRef]

Rogers, Sally J., Sally Ozonoff, and Christine Maslin-Cole. 1991. A comparative study of attachment behavior in young children with autism or other psychiatric disorders. *Journal of the American Academy of Child & Adolescent Psychiatry* 30: 483–88. [CrossRef]

Rothenberg, W. Andrew, Jennifer E. Lansford, Marc H. Bornstein, Lei Chang, Kirby Deater-Deckard, Laura Di Giunta, Kenneth A. Dodge, Patrick S. Malone, Paul Oburu, and Concetta Pastorelli. 2020. Effects of parental warmth and behavioral control on adolescent externalizing and internalizing trajectories across cultures. *Journal of Research on Adolescence* 30: 835–55. [CrossRef]

Rutgers, Anna H., Marinus H. Van Ijzendoorn, Marian J. Bakermans-Kranenburg, Sophie H. N. Swinkels, Emma Van Daalen, Claudine Dietz, Fabienne Naber, Jan K. Buitelaar, and Herman Van Engeland. 2007. Autism, attachment and parenting: A comparison of children with autism spectrum disorder, mental retardation, language disorder, and non-clinical children. *Journal of Abnormal Child Psychology* 35: 859–70. [CrossRef] [PubMed]

Rutter, Michael, A. Bailey, Catherine Lord, and Sibel Kazak Berument. 2003. *Social Communication Questionnaire (SCQ): Manual*. Los Angeles: Western Psychological Services.

Schiltz, Hillary K., Alana J. McVey, Brooke Magnus, Bridget K. Dolan, Kirsten S. Willar, Sheryl Pleiss, Jeffrey Karst, Audrey M. Carson, Christina Caiozzo, and Elisabeth Vogt. 2018. Examining the links between challenging behaviors in youth with ASD and parental stress, mental health, and involvement: Applying an adaptation of the family stress model to families of youth with ASD. *Journal of Autism and Developmental Disorders* 48: 1169–80. [CrossRef] [PubMed]

Sigman, Marian, and Judy A. Ungerer. 1984. Attachment behaviors in autistic children. *Journal of Autism and Developmental Disorders* 14: 231–44. [CrossRef] [PubMed]

Siller, Michael, and Marian Sigman. 2008. Modeling longitudinal change in the language abilities of children with autism: Parent behaviors and child characteristics as predictors of change. *Developmental Psychology* 44: 1691. [CrossRef]

Simonoff, Emily, Andrew Pickles, Tony Charman, Susie Chandler, Tom Loucas, and Gillian Baird. 2008. Psychiatric disorders in children with autism spectrum disorders: Prevalence, comorbidity, and associated factors in a population-derived sample. *Journal of the American Academy of Child & Adolescent Psychiatry* 47: 921–29. [CrossRef]

Smith, Leann E., Jan S. Greenberg, Marsha Mailick Seltzer, and Jinkuk Hong. 2008. Symptoms and behavior problems of adolescents and adults with autism: Effects of mother–child relationship quality, warmth, and praise. *American Journal on Mental Retardation* 113: 387–402. [CrossRef]

Solomon, Marjorie, Michele Ono, Susan Timmer, and Beth Goodlin-Jones. 2008. The effectiveness of parent–child interaction therapy for families of children on the autism spectrum. *Journal of Autism and Developmental Disorders* 38: 1767–76. [CrossRef] [PubMed]

Steinberg, Laurence. 2001. We know some things: Parent–adolescent relationships in retrospect and prospect. *Journal of Research on Adolescence* 11: 1–19. [CrossRef]

Stevens, James. 1992. *Applied Multivariate Statistics for the Social Sciences*, 2nd ed. Hillsdale: Earlbaum.

Stice, Eric, Jennifer Ragan, and Patrick Randall. 2004. Prospective relations between social support and depression: Differential direction of effects for parent and peer support? *Journal of Abnormal Psychology* 113: 155. [CrossRef] [PubMed]

Sturge-Apple, Melissa L., Patrick T. Davies, and E. Mark Cummings. 2006. Impact of hostility and withdrawal in interparental conflict on parental emotional unavailability and children's adjustment difficulties. *Child Development* 77: 1623–41. [CrossRef] [PubMed]

Teague, Samantha J., Kylie M. Gray, Bruce J. Tonge, and Louise K. Newman. 2017. Attachment in children with autism spectrum disorder: A systematic review. *Research in Autism Spectrum Disorders* 35: 35–50. [CrossRef]

Woodman, Ashley C., Leann E. Smith, Jan S. Greenberg, and Marsha R. Mailick. 2015. Change in autism symptoms and maladaptive behaviors in adolescence and adulthood: The role of positive family processes. *Journal of Autism and Developmental Disorders* 45: 111–26. [CrossRef] [PubMed]

Article

Digital Parenting of Emerging Adults in the 21st Century

Michaeline Jensen, Andrea M. Hussong and Emily Haston

1   Department of Psychology, University of North Carolina at Greensboro, Greensboro, NC 27402, USA;
    eehaston@uncg.edu
2   Department of Psychology and Neuroscience, University of North Carolina at Chapel Hill,
    Chapel Hill, NC 27599, USA; hussong@unc.edu
*   Correspondence: Michaeline.Jensen@uncg.edu

Abstract: In emerging adulthood, when many young people are away from their families for the first time, mobile phones become an important conduit for maintaining relationships with parents. Yet, objective assessment of the content and frequency of text messaging between emerging adults and their parents is lacking in much of the research to date. We collected two weeks of text messages exchanged between U.S. college students ($N = 238$) and their parents, which yielded nearly 30,000 parent-emerging adult text messages. We coded these text message exchanges for traditional features of parent-emerging adult communication indexing positive connection, monitoring and disclosures. Emerging adults texted more with mothers than with fathers and many messages constitute parental check-ins and emerging adult sharing regarding youth behavior and well-being. Findings highlight that both the frequency and content of parent-emerging adult text messages can be linked with positive (perceived text message support) and negative (perceived digital pressure) aspects of the parent-emerging adult relationship. The content of parent-emerging adult text messages offers a valuable, objective window into the nature of the parent-emerging adult relationships in the digital age of the 21st century.

Keywords: text messaging; parent-child relationship; communication; mobile phones; interactions; parenting; emerging adulthood

1. Introduction

According to classic theories from the last century, adolescence lays at the nexus of increasing needs for both independence and ongoing support from parents, a developmental tension thought to resolve with adulthood (Erikson 1968; Franz and White 1985; Ryan and Lynch 1989). Twenty-first century scholars, however, now recognize that fulfilling and balancing these developmental needs extends into emerging adulthood, a developmental period between adolescence and adulthood (Arnett 2014). Indeed, the majority of emerging adults today do not describe themselves as fully mature adults who have achieved such developmental milestones and their parents tend to agree (Arnett 2000; Arnett and Schwab 2013). As a result, emerging adulthood marks the start of a second lap for the parent-child relationship, one in which both parents and emerging adults must accommodate shifting roles, priorities, and interaction styles (Mullendore et al. 2018), often through the use of modalities uncommon in the prior century.

Most notably, in the digital age of the twenty-first century, parent-emerging adult interactions are increasingly virtual (Jennings and Wartella 2012). Families have more ways to stay in touch over the course of the day than ever before. Most parents can send their emerging adult a text or call at a moment's notice, and emerging adults likewise have a line to parental support and guidance constantly at their fingertips. Yet, we still have much to learn about how and how much families interact digitally and the extent to which the frequency and content of digital interactions may help or hinder the delicate balance between autonomy and parent-child relatedness in emerging adulthood.

Therefore, the present study extends existing literature which points to the mobile phone as a new tool for digitally enacting traditional parenting and parent-child interaction behaviors (Jensen et al. 2021; Fletcher et al. 2018; Rudi and Dworkin 2018). We examine how and how much parent-emerging adult dyads digitally engage in two key forms of parent- child behaviors that reflect (a) positive connection and (b) monitoring and disclosing behaviors. Further, we test whether established associations between these offline parenting behaviors and autonomy and relatedness are evident in the digital world of emerging adults.

1.1. Parenting in Emerging Adulthood

Despite half a century of research on what parenting behaviors most facilitate social and emotional development in children and adolescents (Baumrind 1966; Maccoby and Martin 1983; Schaefer 1965), research on the parenting of emerging adults has only recently begun (Padilla-Walker and Nelson 2019). Although lacking a unifying theory, research on the parenting of emerging adults often encompasses several behaviors consistently linked with well-being across development (Hussong et al. n.d.; Padilla-Walker and Nelson 2019). These include behaviors aligned with classic parenting styles (Baumrind 1966, 1991) such as parental engagement in *positive connection* (which encompasses constructs like warmth, support, sensitivity, and responsiveness) and *parental monitoring* of child behavior and related child disclosures (which includes limit setting, structure, demandingness and control; Schaefer 1965; McKee et al. 2009; Collins et al. 2000).

1.1.1. Positive Connection in Parent-Emerging Adult Relationships

The fundamental importance of parental positive connection to adaptive development and indeed survival is well established in childhood through studies on parental sensitivity and attachment (Cox and Harter 2003). Although we know that time spent together tends to decline from preadolescence through late adolescence (Larson et al. 1996), perceived parental support seems to decline from early to mid-adolescence but then rise again from mid to late adolescence (De Goede et al. 2009). Overall, research suggests that parents continue to be an important source of positive support throughout adolescence and even into emerging adulthood (O'Connor et al. 1996; Swartz et al. 2011), with stronger indicators of positive connections with mothers than fathers (Nelson et al. 2011). Further, parental support of emerging adults has become increasingly prevalent over historical time (Eggebeen 1992). Parental support may be especially important in successful transitions out of the family home (Hussong and Chassin 2004), including among emerging adults who leave to attend college (Fingerman et al. 2012). Many scholars include parental provision of social support as a dimension of positive parent-child connection (Furman and Buhrmester 1985), which can include forms of nurturant (emotional and/or esteem), informational (or advice), and tangible (or instrumental) support (Barrera and Ainlay 1983; Cutrona and Russell 1990). Recent research highlights the importance of parsing the emerging adult's level of desired support (and for what type) relative to the quantity and type of support provided by their parent (Wang 2019). Across these literatures, a positive, connected, supportive parent-emerging adult relationship is clearly a valuable resource that can bolster healthy emerging adult relatedness, well-being and adjustment (Barry et al. 2008; Fingerman et al. 2012; Padilla-Walker and Nelson 2019).

1.1.2. Parental Monitoring and Youth Disclosures in Parent-Emerging Adult Relationships

Historically aligned with parental structure and limit setting, parental monitoring is viewed as a protective factor (especially against externalizing problems) in adolescence (Dishion et al. 1991; Galambos et al. 2003; Gray and Steinberg 1999; Kurdek and Fine 1994). Consistent with a stage-environment fit perspective, parental monitoring and its protective benefits may wane as adolescents become emerging adults, given growing independence and self-reliance (Eccles et al. 1993). Indeed, high levels of parental monitoring in emerging adulthood ought to undermine autonomy development (Padilla-Walker and Nelson 2019).

Interestingly, however, most emerging adults today believe that their parents have legitimate authority to monitor and prescribe behavior in at least some aspects of their lives (Padilla-Walker et al. 2014). Current conceptualizations of monitoring distinguish between different forms of this behavior (i.e., parental control, rules, and solicitation of information) as well as recognize the role of youth in disclosing information as part of how parents' gain the knowledge used to monitor children (Stattin and Kerr 2000). Research in adolescence suggests that mothers are involved in more solicitation and control as well as receive more disclosures about youth activities as compared to fathers (Smetana et al. 2006; Keijsers et al. 2009). Although few studies have parsed the frequency or impact of these specific dimensions of monitoring in emerging adulthood, recent research suggests that emerging adults also disclose more to mothers than fathers, with frequent disclosers (to either parent) enjoying more parental support for their autonomy (Son and Padilla-Walker 2021).

1.1.3. Parenting in Emerging Adulthood as a Two-Way Street

Within studies on the parenting of emerging adults, the *active role of the emerging adult* in shaping interactions and the evolving parent-emerging adult relationship has been largely overlooked (Padilla-Walker and Nelson 2019). Although some research points to the potential for the behavior of older adolescents to evoke parenting behaviors (e.g., Maggs and Galambos 1993; Padilla-Walker et al. 2012), more research is needed to better understand the dynamic interplay between parents and emerging adults. As noted, research on parental monitoring increasingly highlights the importance of distinguishing between parental solicitations and youth disclosures about their own behavior, with disclosures serving as stronger predictors of parental knowledge and youth behavior (Hamza and Willoughby 2011; Urry et al. 2011). Further, scholars have made the distinction between perceived and received (or enacted) social supports (Wills and Shinar 2000), recognizing the role of emerging adults in the seeking and receiving of supports as well. Although "parenting" has most often been conceptualized as things the *parent does or says*, it is imperative to also consider what the *emerging adult child does or says* in order to fully understand how positive connection and monitoring and disclosing behaviors manifest in relationships between emerging adults and their parents.

1.2. Parenting in the Digital Age

The new millennium has seen frequent contact between college students and their parents, with 40% of students reporting daily interactions with family members and 82% reporting contact at least weekly (Liu et al. 2008). College students report that they call or text with their mothers about 12 times per week and their fathers 6 times per week (Miller-Ott et al. 2014). A total of 35% of US parents report that technology makes parenting easier (Lauricella et al. 2016) and many youths likewise tout the benefits of parent-child digital communication (Campbell 2006; Chen and Katz 2009). In addition, more frequent parent-youth digital communication is associated with greater parent-child closeness (Manago et al. 2020), improved health outcomes and less binge drinking (Small et al. 2011, 2013), and better youth self-esteem (Weisskirch 2011). Thus, parenting seems to be facilitated by digital communication (Walker and Rudi 2014). Yet, we know little about how traditional parenting behaviors are enacted within digital contexts.

1.2.1. Parent-Emerging Adult Positive Connection and Monitoring and Disclosing Behaviors via Mobile Phone

Co-construction theory (Subrahmanyam et al. 2006) asserts that youth co-create their online and offline interactions and environments to best suit their developmental needs. Given this intricate intertwining of the online and offline spheres, it is likely that salient aspects of traditional face-to-face parent-emerging adult interactions will manifest digitally. Indeed, the traditional tasks of parenting are evident in parent-adolescent digital communication. Youth and their parents self-report using mobile phones to facilitate both positive connection (i.e., to seek help, receive support, and share experiences with their parents; Chen and Katz 2009) and to engage in monitoring and disclosing behaviors

(i.e., for parents to check in and inquire about the youth's activities and whereabouts; Fletcher et al. 2018; Kasesniemi and Rautiainen 2002; Racz et al. 2017). Using an ecological momentary assessment design, our own research suggests that phone contacts between younger adolescents and parents, though somewhat infrequent, include responding to adolescent mental health needs with both monitoring and support (Jensen et al. 2021). For emerging adults, qualitative interviews (Platt et al. 2014), focus groups (Chen and Katz 2009), and quantitative self-report surveys (Ramsey et al. 2013; Miller-Ott et al. 2014) highlight that digital communication plays a key role in maintenance and evolution of a positive, connected parent-child relationship in the college years. Yet, the way in which positive connection as well as monitoring and disclosure behaviors are enacted as dyadic processes within digital communication between parents and their emerging adults remains to be charted as does the importance of these virtual interactions in supporting autonomy and relatedness in emerging adults.

1.2.2. Text Messaging and Digital Analogues to Autonomy and Relatedness in Emerging Adulthood

One way to gauge the importance of digital interactions between emerging adults and their parents is to evaluate the role such interactions play in fulfilling key functions of traditional parenting behaviors that support development gains. Notably, we would have greater confidence in the primacy of digital forms of building positive connection as well as monitoring and disclosing behaviors if they are associated with indicators of autonomy and relatedness with parents (Ryan and Deci 2000), particularly as manifested in a digital context.

Relatedness is often conceptualized as encompassing constructs such as belonging and attachment and is often operationalized as relationship quality, attachment security, and quality of interactions (Baumeister and Leary 1995; River et al. 2021). Importantly, relatedness in these measures reflects a child's perception that others, or in this case parents, care about them, support them, and are present in their lives. Digital analogues of relatedness then should reflect these same perceptions in emerging adults. For example, emerging adults may evidence a greater sense of relatedness with parents by viewing digital communications with parents as more supportive. Similarly, more frequent text communication with parents may signal that emerging adults view their parents as more available and present in their lives. Consistent with this view, more frequent calls and texts are linked with student perceptions of more uplifting, supportive, intimate, and satisfying parent-child relationships (Gentzler et al. 2011; Jensen et al. 2021). There is also some evidence that days marked by digital social support and (some forms of) monitoring are described by younger adolescents as involving more positive offline interactions with parents (Jensen et al. 2021). Thus, youth perceptions of parents as supportive via text messaging might translate into a broader sense of relatedness in the parent-emerging adult relationship.

Autonomy involves establishing self-sufficiency and independence. Parents can support autonomy in emerging adults by promoting independence through physical and social distancing as well as by promoting volitional functioning (Benito-Gomez et al. 2020). On the other hand, parents may inhibit autonomy by being too controlling and intrusive, with limited distancing. Parental intrusiveness as an impediment to autonomy in emerging adults has a direct analogue in the digital world. Indeed, the "always on" nature of the mobile phone may facilitate excessive contact that is perceived as autonomy inhibiting, invasive, and privacy-violating (Racz et al. 2017). Early studies concur, suggesting that parent phone contacts may be perceived as intrusive (Green 2007; Ling and Yttri 2002), especially when phone contacts are parent- rather than child-initiated (Weisskirch 2009, 2011), and infringe on personal time and space (Williams and Williams 2005). Thus, emerging adults who experience pressure to be digitally available to parents may also view parents as inhibiting their autonomy.

Digital communication between parents and emerging adults may carry both benefits and risks for the evolution of relatedness and autonomy within this relationship and

developmental period. Just as there are digital ways of expressing positive connection and monitoring and disclosing behaviors within parent-emerging adult relationships, digital analogues may also be found for how emerging adults experience relatedness and autonomy within their relationships with parents.

1.2.3. Beyond Self-Reports of Digital Communication

Scholars have called for more research that delves into the treasure trove of naturalistic interactions archived within our smartphones (e.g., Reeves et al. 2020). Although recent studies have collected objective data about text message frequency and (to some extent) content in small samples of college students and other young adults, both naturalistically (Aledavood et al. 2016; Eshghinejad and Moini 2016; Ouellette and Michaud 2016) and in the lab (Holtzman et al. 2017), none have yet examined parent-emerging adult text messages nor how these interactions relate to the larger parent-emerging adult relationship. Indeed, the only published study to date which explicitly examines the objective content of parent-child text communications comes from the well-designed Blackberry Project (Underwood et al. 2012). These researchers collected all text messages exchanged (with all relationship partners, including parents) by about 200 adolescents over their entire high school careers (2008–2012). The researchers used a qualitative hand-coding approach to capture antisocial content (e.g., discussions about drugs, aggression, or rule-breaking), negative talk (e.g., negative social interactions, social exclusion, negative appraisals of self or others, expression of negative affect, and sarcasm), positive talk (e.g., discussion of positive events or feelings, positive assessment of self or others), and sexual content (e.g., references to past, present, or future sexual behavior) in text messages taken from 4 days per year (across 4 years) for each adolescent (interrater reliabilities (kappa) ranged from 0.65 to 0.82 across codes; Ehrenreich et al. 2020). Results indicate that teens text far less with parents than with peers; the average participant exchanged 27.58 (SD = 27.73) text messages with parents across 4 days in the 12th grade (which comprise about 6.45% of all texts exchanged; SD = 8.65). Unsurprisingly, parent-child texts were much more likely to include positive and neutral content than negative, antisocial, and sexual content. This coding scheme was applied to all types of adolescent interactions with all interaction partners, and thus some codes were less relevant to the parent-child relationship. Content analysis that focuses specifically on theoretically driven, parent-child specific, communication processes could help shed light on important dynamics in parenting in the digital age.

1.3. The Present Study

The present study directly examined the content of text messages exchanged by parents and emerging adults. We used a qualitative coding scheme to capture theoretically salient aspects of parenting: positive connection and monitoring and disclosure. We also examined associations between these aspects of texting-based interactions and emerging adults' perceived pressure to engage digitally with parents (a digital analogue to reduced autonomy-granting) and perceived support by parents (a digital analogue to relatedness to parents). To do so, we analyzed data from 238 U.S. college students who permitted sent and received text message downloads from their personal phones from the prior two weeks in 2014–2015. We focus here on objective assessment of the content of both sent and received messages exchanged within parent-emerging adult dyads, allowing us to study the dyadic nature of "positive connection" and "monitoring and disclosing behaviors" in such exchanges.

We used these rich, naturalistic observations of digital interactions between parents and emerging adults to address four aims. First, we sought to describe the overall *frequency* of parent-emerging adult text message interactions. Given the history of digital divides in access to and use of modern communication technologies due to social class (Norris 2001; George et al. 2020), age and gender (Jensen et al. 2021; Rudi et al. 2015), we explored whether these patterns differed based on emerging adults' gender, race/ethnicity, age, and socioeconomic status. (*Q1: How often are parent-emerging adult dyads engaging in text*

messaging and are there systematic differences in parent-emerging adult texting frequency?). Second, we sought to describe the *content* of parent-emerging adult text interactions, focusing on exchanges reflecting positive connection (warmth, gratitude, and support provided and solicited) and monitoring (parental control and solicitations alongside emerging adult disclosures). (*Q2: In what ways (and to what extent) are parent-emerging adult dyads using text messaging for positive connection and monitoring and disclosing behaviors, and are there differences in the frequency of text messaging for these purposes between mother-emerging adult and father-emerging adult dyads*).

Next, we tested whether the quantity and content of parent-emerging adult text interactions were associated with digitally analogues to autonomy and relatedness. (*Q3: Are parent-emerging adult text frequency and content related to perceived digital pressure and support from parents?*). We hypothesized that emerging adults would perceive greater digital pressure from parents if they exchanged more frequent text messaging and received more texts reflecting parental monitoring (solicitations and control, though not disclosures). We also hypothesized that emerging adults would perceive more support in parents text messages if they exchanged more frequent text messages and exchanged more texts reflecting positive connection. Given higher rates of mother than father communication with emerging adults (Fingerman et al. 2012), we analyzed mother- and father-emerging adult dyads separately, and hypothesized that texting frequency, positive connection, and monitoring and disclosing behaviors would all be more common in mother- than father-emerging adult dyads. Based on prior research, we did not make specific predictions about differential associations of text message frequency and content with digital pressure and text message support between mother- and father-emerging adult dyads (Padilla-Walker and Nelson 2019).

2. Materials and Methods

2.1. Sample and Procedures

An in-depth description of study procedures can be found in (Hussong et al. 2021). Briefly, participants were drawn from the Real-U Study of College Life (approved by IRB #14-0360) and were originally recruited through email invitations sent to randomly sampled undergraduates at a southeastern U.S. university in 2014–2015 (with oversampling for males and African American students; $n = 9000$) and through word-of-mouth ($n = 57$; Hussong et al. 2021). Of these, 1141 were pre-screened as eligible (reporting past year alcohol use to meet the aims of the parent study) with 854 students completing the first visit and 840 completing both visits before study closure. This sample (which comprises college students who report at least some past year drinking) differs somewhat from the population from which it was drawn (where 75% of students report past-year alcohol use; High-Risk Alcohol and Substance Abuse Working Group 2015), though concerns about generalizability are allayed somewhat by the extent to which this sample of 854 participants was highly representative of the student body from which it is drawn on age, gender, and college year (Hussong et al. 2021), though more ethnically diverse by design (46% male; 22% African American, 5% Hispanic/Latino, 60% European American, 9% Asian, 6% multi-racial, and <1% Native American/Alaskan Native or Pacific Islander or unknown).

In the overarching study, participants completed two lab-based visits (of 75–90 min each) separated by two weeks in which they gave consent, completed online surveys, and received a $20 and a $25 incentive, respectively. As they left the second visit, students were invited to participate in the Text Messaging Study if they had an Android phone or an iPhone with them. In a separate consent procedure, we informed participants that the study entailed presenting their own smart phone to the RA who would connect it to a secure, non-networked computer using a standard USB cord and download their past two weeks of text messages with all communicants with whom they had texted. Consistent with North Carolina law (N.C. Gen. Stat. Ann. § 15A-287; Rasmussen et al. 2012), the IRB waived consent for these communicants. Participants entered a drawing for four $100 cash prizes.

Students' texts were downloaded behind a privacy screen using secure, for-pay software (MOBILedit Forensic Express) that allowed us to selectively download SMS text data. Downloads included phone numbers, timestamps, and text for all sent and received messages during the last two weeks. Participants provided phone numbers for their mothers, fathers, romantic partners, and up to three friends which were used to anonymize the text message data (phone numbers were replaced with a relationship identifier (i.e., mother, father) or a random identifier (i.e., person1, person2) for other phone numbers).

Due largely to changing technology during the study period across the many types of participants' phones, we successfully downloaded text messages from only 267 of 528 consented participants (51% capture rate), yielding 569,172 texts over the 14 preceding days. The majority of unsuccessful captures were from Android phone users (due to operating system updates that resulted in incompatibility with our download software), which resulted in a preponderance of iPhone users in the final text message sample (Hussong et al. 2021). Selection analysis showed that, other than being more likely to have an iPhone, participants did not differ substantially from others in the overarching study on demographic and risk indicators (Hussong et al. 2021). In the current analysis, we included only those who exchanged at least one text message with at least one parent in the prior two weeks (89%; *n* = 238). We also eliminated texts exchanged in group messages, leaving a sample of 215 students who exchanged 21,381 text messages with mothers and 182 students who exchanged 6358 text messages with fathers. Downloads included text but no images (for privacy, though an ⌷ object replacement character flagged the presence of an indecipherable image; 3.8% of texts included an image). Simple emoticons (e.g., heart, smiley face) were captured intact but more complex emojis were downloaded as indecipherable symbols (4.4% of texts included an indecipherable emoji).

2.2. Measures

2.2.1. Demographics

Emerging adults reported on their age, gender (male/female), and highest level of parent education (as a proxy for SES). They also self-reported on their race (1 item) and Hispanic/Latino ethnicity (1 item). For analyses here, we have re-coded these responses into three categories: Black (including one Afro-Latino emerging adult who endorsed Black race and Hispanic/Latino ethnicity), White (not Hispanic/Latino), and other race/ethnicity (which includes emerging adults who endorsed Hispanic/Latinx ethnicity alongside emerging adults who identified as American Indian or Alaskan Native, Asian, and Multiracial). Sample characteristics can be found in Table 1.

2.2.2. Emerging Adult Perceived Parental Digital Pressure

In order to assess the ways in which parent-emerging adult text messaging might be associated with perceived parental intrusiveness (relevant to autonomy), emerging adults responded to ten items adapted from Hall and Baym's (2012) measure of digital "entrapment" at the second lab visit. Items queried the extent to which emerging adults perceived intrusiveness, pressure and stress around parent-emerging adult contact by phone or online and perceptions that parents were annoyed when emerging adults were unavailable. We directed emerging adults to: "Please answer each of the questions below for your parent." Thus, we cannot distinguish between perceptions of mothers and fathers. Response options ranged from 0 "Not at all true" to 4 "Extremely true." An initial CFA showed that the ten items had a poor fit to a single factor model ($\chi^2(35) = 122.105$, $p < 0.0001$; TLI = 0.869, RMSEA = 0.104 [CI 0.084 to 0.124]; SRMR = 0.063) with modification indices suggesting residual correlations among clusters of items (e.g., those that mentioned parental "annoyance"). Given the focus of the study, we dropped items focused on parent annoyance, emerging adult stress and emerging adult disengagement and retained four items tapping *parental digital pressure*; the resulting single factor model provided a good fit to the data ($\chi^2(2) = 2.128$, $p = 0.345$; TLI = 0.998, RMSEA = 0.017 [CI < 0.001 to 0.133]; SRMR = 0.016). All items loading strongly on the digital pressure factor, including: "I feel pressured that I

have to be available to this person by phone or online" (λ = 0.762; *M* = 1.087, *SD* = 1.244), "I feel pressured to text or post online to tell this person what I am doing" (λ = 0.761; *M* = 0.502, *SD* = 0.935), "I feel pressured to text or post online to keep in touch with this person" (λ = 0.862; *M* = 0.739, *SD* = 1.095), "I feel pressured to respond quickly to all texts or online posts from this person" (λ = 0.741; *M* = 0.765, *SD* = 1.124). Emerging adult perceived parental digital pressure was modeled as a latent variable in subsequent analyses.

Table 1. Sample Characteristics of Parent-Emerging Adult Dyad Text Message Sample (*N* = 238).

Demographics	% of Sample	Mean (*SD*)
Age		19.85 (1.39)
Male Gender	39.08%	
Race		
Black/African American	21.01%	
White (not Hispanic/Latino)	56.72%	
Other Race/Ethnicity	22.27%	
Latino/Hispanic	7.14%	
American Indian, Alaska Native	0.84%	
Asian	5.46%	
Pacific Islander	0%	
Multiracial	2.94%	
Parental Education		4.73 (1.36)
Less than High School (1)	1.26%	
High School Graduate (2)	4.2%	
Some College or Technical School (3)	14.71%	
College Graduate (4)	28.15%	
Some Graduate, Medical, or Professional School (5)	3.78%	
Completed Graduate, Medical, or Professional School (6)	47.9%	

2.2.3. Emerging Adult Perceived Parental Text Supportiveness

To assess the ways in which parent-emerging adult text messaging is associated with perceived parent-emerging adult relatedness, emerging adults responded at the second visit to three items developed by the study team which queried how much they used text messaging to seek or receive parent support. Participants were told that: "The following are reasons why some people may use text messaging. Please indicate how true each reason is for you with regard to your text messaging using the following scale." Response options ranged from 0 ("Not at all true") to 4 (Extremely true"). The three items loaded strongly onto a single factor: "To get support from your parents for dealing with personal problems" (λ = 0.748; *M* = 1.001, *SD* = 1.125), "When you are feeling down or upset, to have your parents cheer you up" (λ = 0.940; *M* = 0.995, *SD* = 1.119), and "To get help, advice, or sympathy from your parents" (λ = 0.925; *M* = 1.040, *SD* = 1.126). The items asked about parents in general and did not distinguish between perceptions of mother and father separately. Emerging adult perceived parental supportiveness via texting was modeled as a latent variable in subsequent analyses.

2.2.4. Parent-Emerging Adult Texting Frequency

The number of text messages exchanged between parents and emerging adults was computed directly from the captured text messages for each dyad ($M_{\text{Mother Dyads}}$ = 102.84, *SD* = 139.52; $M_{\text{Father Dyads}}$ = 36.69, *SD* = 49.95). Given the reciprocal nature of text messaging, the frequency of sent (from emerging adults) and received (to emerging adults) messages were highly correlated ($r_{\text{Mother Dyads}}$ = 0.97, $r_{\text{Father Dyads}}$ = 0.94) and thus we report the total frequency of mother-emerging adult and father-emerging adult text messages (a combined sum of sent and received). Emerging adults also self-reported their perceived parent-emerging adult texting frequency (i.e., "On a typical day, how much time do you spend interacting with your parents through texting - NOT including phone calls") with response options of 0 = "I don't use this" and 1 = "1 hour or less," to 6 = "9 hours or

more" ($M = 1.248$, $SD = 0.650$). This subjective perception of texting frequency with parents correlated $r = 0.36$, ($p < 0.0001$) with the total objective texting frequency count of sent and received text messages with mother and father combined.

2.2.5. Parent-Child Text Interaction Coding Scheme (PCTICS)

Coding Manual Development. PCTICS codes were developed to tap theoretically relevant dimensions of parent-child interactions across monitoring and positive connection (see Table 1; Jensen 2017) and were adapted to fit the text-message medium from existing observational coding systems or survey measures. The coding manual included extensive examples and clarifications (of potentially tricky instances which would or would not meet the criteria for each code); key examples and clarifications are noted here. Micro-level coding occurred at the level of a single text and codes were not mutually exclusive or exhaustive (i.e., 42% of texts received no codes).

Coded domains tapping monitoring included emerging adult *disclosure*, parent *solicitation* of information, and parent exertion of *control* around rules and expectations for behavior; adapted from the dimensions identified by Kerr and Stattin (2000). Parent *solicitation* was coded whenever a parent's text message queried the emerging adult's behavior, wellbeing (e.g., health, sickness, mental health, sleep), activities, relationships, and whereabouts. Most solicitations took the form of questions, though some statements that were clearly intended to solicit information (e.g., "Grandma told me you were thinking about changing majors . . . ") were also assigned the solicitation code. Of note, solicitation was coded even if the query was about seemingly mundane topics; for example, a parent text of "What did you do today?" would be coded as a solicitation because it reflected an attempt to gain knowledge of the emerging adult's activities. Not all parent questions were coded as solicitations; a guiding principle was that the question needed to serve to increase parent knowledge about the emerging adult's wellbeing, behavior, relationships, or activities. Thus, questions about opinions, beliefs, and preferences (e.g., "What do you think of that new governor?", "Do you like macaroni?") would not be coded as solicitation. Examples of parent solicitation include: "What time did you get to bed last night?", "What did you eat today?", and "Who did you go to the party with last night?".

Emerging adult *disclosure* was coded whenever an emerging adult's text message disclosed information about their behavior, wellbeing, activities, relationships, whereabouts, or plans for the future. Disclosure texts could be either spontaneous or prompted by parent solicitation. Not all statements containing information were coded as emerging adult disclosures. For instance, if the emerging adult shared information for the purpose of coordination (e.g., "Meet me by the front door; I am downstairs") it would not be coded as a disclosure. As with solicitation, statements about opinions, thoughts, and preferences would not meet the criteria for a code of disclosure. Disclosures *about other people* (as in gossip or chit chat, e.g., "I heard that Veronica got into Johns Hopkins") would not be coded as disclosures. Examples of emerging adult disclosures include, "I made a B on my exam last week", "I went shopping and bought some new shoes", and "I have been staying up late studying and I fell asleep in class last night".

Parent *control* was coded whenever a text message reminded the emerging adult of expectations or rules for behavior. Control was coded when a statement was unsolicited, directive, actionable (refers to a specific behavior), and/or conveyed a norm or expectation for behavior. These codes were distinct from those for advice provision, which was coded when advice was solicited, the parent guidance was non-directive (e.g., framed as suggestions or something to consider) or took a teaching tone. Examples of parent control include: "It's important that you get at least eight hours of sleep", "Make sure you call your grandmother today", and "Why didn't you text me back to let me know what time you would be home last night?"

Coded domains tapping positive connection included *warmth* (adapted from Melby and Conger 2001), *gratitude* (adapted from Froh et al. 2011) and different types of social support (emerging adult seeking and parent provision of emotional/esteem support,

instrumental support, and advice; House et al. 1988; adapted from Hussong et al. 2001; Shadur et al. 2015). Codes of *warmth* were assigned in both parent and emerging adult text messages that included expressions of care, concern, support, or encouragement. Warmth was a fairly general code meant to capture most kind, responsive communication, and often included endearments, expressions of affection and love, warm greetings, and compliments. Examples of warmth include: "Praying for you today!", "Love you!", and "Can't wait to see you this weekend!"

A code of *gratitude* was assigned whenever a text message (from parent or emerging adult) conveyed gratitude or thanks. Generalized gratitude that was not directed towards the other interactor was still coded as gratitude (e.g., "I am so grateful to have gotten that scholarship"). Examples of gratitude include "Thank you so much!!", "You're the best!" (in response to a gift or support), and "I don't know what I would do without you".

Emerging adult support seeking and parent support provision were coded separately for three domains of support (emotional/esteem, instrumental, and advice). Support seeking was coded when an emerging adult text message conveyed a desire or need for support (within each domain separately). Specifically, *emotional/esteem support seeking* was coded whenever a text message conveyed a desire for emotional or esteem support, which often included features of disclosing distressing emotions or requests for comfort. Emotional/esteem support seeking was coded both for direct requests for support (e.g., "I am feeling so sad today, can we talk on the phone later?") and indirect support seeking (e.g., "I feel like such a failure"). Many of these texts also met criteria for an emerging adult disclosure code. Examples include: "I'm really worried about my final exams", "Do you think I am smart enough to get that job?", and "Carol just broke up with me."

Emerging adult *instrumental support seeking* was coded for emerging adult text messages that sought tangible aid. Many of these were explicit requests (e.g., "Can you send me $100?") but others were more subtle (e.g., "I am short on money for rent"). Requests for favors, money, or other tangible supports were coded as instrumental support seeking. Examples include, ""Will you look over my grad school applications?", "I think I am out of meal swipes", and "Could you take me to get my car serviced this weekend?".

Emerging adult *advice seeking* was coded whenever a text message sought to elicit advice or guidance. This often took the form of a direct request for advice (e.g., "Do you think I should take summer classes?") or a direct question (e.g., "How do I check my oil?"). Examples include: "Is studying abroad a good idea?", "How many jobs should I apply to?", and "Should I buy this dress?"

Parent support provision was coded when the parent offered or provided support (within each domain of emotional/esteem, instrumental, and advice separately). Specifically, *emotional/esteem support provision* was coded whenever a text message offered or provided emotional support (communicates caring, concern, sympathy, or understanding and attempts to comfort or console) or esteem support (communicates that the emerging adult is highly valued). Emotional/esteem support provision can be distinguished from warmth in that emotional/esteem support provision must have occurred in response to a stressor or need, whereas warmth need not. For example, the statement, "I love you" may just be coded as warmth (if said spontaneously) or both warmth and emotional/esteem support provision (if said in response to a disclosure of negative emotion by the emerging adult). Many instances of emotional/esteem support provision were also coded as warmth, but not all instances of warmth were coded as emotional/esteem support provision. Examples include: "Together we will make it through this", "What a bummer!", and "I understand how hard this is for you."

Parent *instrumental support provision* was coded whenever a text message discussed the offer or provision of tangible aid and needed to occur in the context of a need or support seeking. Instrumental support provision included both offers (even if the coder couldn't determine if the offer was followed through on) and provision of money, goods, and favors. Examples include: "I will send you $100 to get you through to your next paycheck," "Dad

has an old phone, we will send it to you since you broke yours," and "I could talk to him for you."

Parent *advice provision* was coded whenever a parent text provided guidance or advice to the emerging adult. As noted above, advice provision was sometimes difficult to distinguish from parent control, and thus specific guidelines were provided to coders to guide coding decisions. In some dyads, parent advice provision took the form of scaffolding or help in problem solving (e.g., Socratic questioning rather than outright advice). Texts which used scaffolding and questions to promote problem solving (e.g., evaluate pros and cons, consider all the relevant factors) were coded as advice provision. Examples of advice provision include: "If I were you, I might think about asking if rent will go up next year", and "I think in North Carolina maybe you have to go to the Driver's license office to get an in-state license before you can register your car."

Harsh/conflictual messages were also coded (adapted from Melby and Conger 2001), defined as texts which conveyed hostile, angry, critical, disapproving, rejecting, or contemptuous behavior toward the emerging adult, but occurred infrequently (only 6 occurrences across nearly 30,000 text messages) and thus were dropped from analysis.

Text Message Preparation. Prior to coding, text messages were subjected to an identity-finder program which flagged instances of 9-digit (social security) and 16-digit (credit card) numbers, which were then cloaked in text content. Further, consistent with the IRB approval, the first author read through all of the nearly 30,000 text messages before coding and cloaked any other identifiable information embedded within the text content (e.g., participant first and last names, phone numbers). She also flagged/removed instances of group text messages., leaving just mother-emerging adult and father-emerging adult text threads for coding.

Text Message Coding Procedures. Parent-emerging adult text messages were coded using Microsoft Access by an undergraduate coder who was trained to acceptable inter-rater reliability (IRR, Cohen's kappa > 0.80) on an initial subset of the text message database with the first author (and code developer) for all PCTICS codes. Each text message was read in order and assigned as many codes (1 = present, 0 = absent) as applicable. As illustrated in Figure 1, codes were neither mutually exclusive nor exhaustive; many texts received multiple codes whereas others received none at all. For example, a parent text message stating "Good morning, honey! Did you get your paper turned in by the deadline last night?" would be assigned codes for both parental *warmth* and *solicitation*. Ultimately, 42% of text messages did not contain content that fell within the coded domains of monitoring or positive connection. Once baseline reliability was reached, previously coded text messages were re-coded by the newly reliable coder. To monitor coder drift and evaluate reliability, 20% of messages were double-coded. Final IRRs and percent agreement are reported in Table 2. According to Landis and Koch's (1977) benchmarks for interrater reliability, most codes fell into the substantial (*K*s 0.61 to 0.80) to near perfect (*K*s 0.81 to 1.0) range, though one (parental instrumental support provision) evidenced only moderate (*K*s 0.41 to 0.60) agreement between raters. Overall, these interrater reliabilities are comparable to those seen in the Blackberry Project (Ehrenreich et al. 2020), with the lowest occurring for low-base rate behaviors (e.g., specific types of support provision).
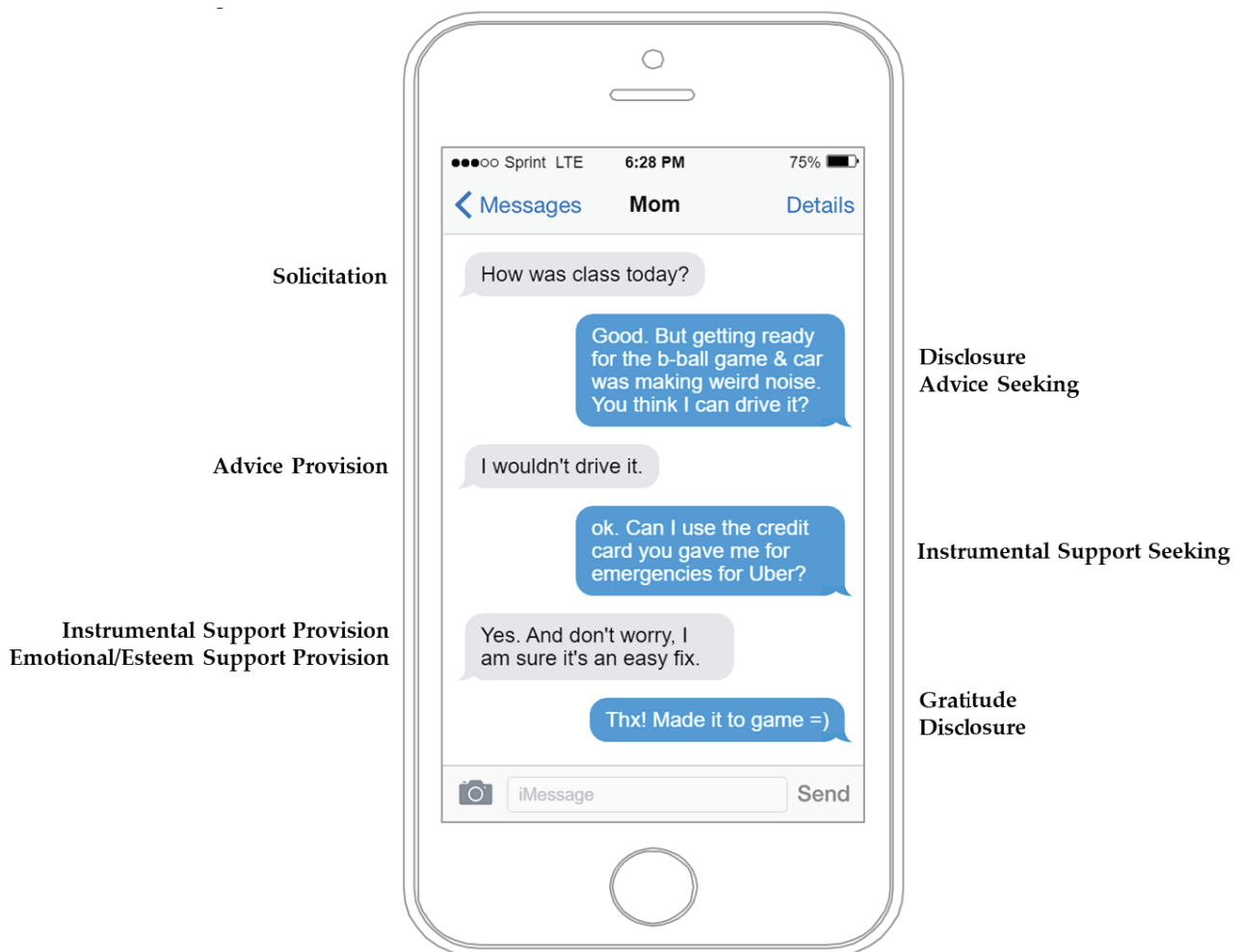
Figure 1. Simulated Text Message Conversation and PCTICS Codes.

Table 2. Interrater Reliability.

Code	IRR (K)	% Agreement
Monitoring		
EA Disclosure	0.73	0.87
Parent Solicitation	0.82	0.96
Parent Control	0.69	0.97
Positive Connection		
EA Warmth	0.82	0.98
Parent Warmth	0.83	0.96
EA Gratitude	0.96	1.0
Parent Gratitude	0.96	1.0
EA Emotional/Esteem Support Seeking	0.73	0.98
Parent Emotional/Esteem Support Provision	0.66	0.98
EA Instrumental Support Seeking	0.63	0.98
Parent Instrumental Support Provision	0.54	0.96
EA Advice Seeking	0.75	0.99
Parent Advice Provision	0.61	0.96

Note. *N* = 238 emerging adults. EA = Emerging Adult.

2.3. Data Analyses

For Q1, the frequency of parent-emerging adult text interactions were computed separately for mother-emerging adult dyads (*N* = 215) and father-emerging adult dyads (*N* = 182) in SAS 9.4. Associations between mother- and father-emerging adult texting frequency and demographic covariates were tested in zero order correlations for continuous variables (age and parent-education) and in ANOVAs for categorical demographic covariates (gender and race/ethnicity).

For Q2, the frequency of each coded PCTICs domain was computed separately for mother-emerging adult texts interactions (*N* = 215) and father-emerging adult text interactions (*N* = 182) in SAS 9.4. Paired samples t-tests were used to compare the average frequency of each code for mother- and father-emerging adult dyads (among the sample of emerging adults who communicated with both a mother and a father; *N* = 159).

For Q3 and Q4, associations between frequency and content of text interactions and perceived digital pressure and perceived text supportiveness were tested using structural equation modeling performed with Mplus version 8 with MLR estimation (with robust standard errors) and full information maximum likelihood handling of missing data. Analyses were conducted separately for mother- and father-emerging adult dyads. First, as shown by the grey boxes/paths in Figure 2, emerging adult perceived parental digital pressure and perceived parental text supportiveness were regressed (in separate models) on parent-emerging adult text frequency, alongside covariates of gender, age, and parent education as a proxy for SES. Next, each PCTICS code was added to the above models (separately; black path) to allow for an assessment of the association of each individual code, over-and-above the associations with parent-emerging adult texting frequency and covariates.
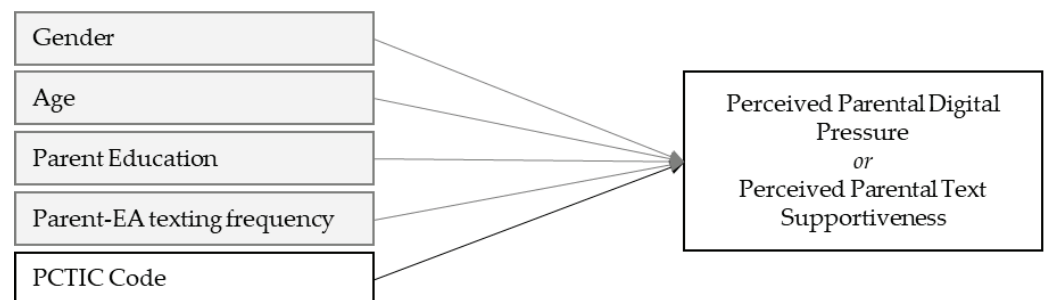

Figure 2. Q3 and Q4 Analytic Models. Note. Models were run separately for mother-emerging adult and father-emerging adult dyads. First, Perceived Parental Digital Pressure and Perceived Parental Text Supportiveness were regressed (in separate models) on parent-EA texting frequency and covariates of gender, age, and parent education (grey boxes/paths; results in upper panel of Tables 4 and 5). Next, Perceived Parental Digital Pressure and Perceived Parental Text Supportiveness were regressed (in separate models) on each PCTIC code separately, alongside covariates and parent-EA texting frequency (results in lower panel of Tables 4 and 5).

3. Results

3.1. How Often Are Parent-Emerging Adult Dyads Text Messaging, and Are There Systematic Differences in Parent-Emerging Adult Texting Frequency? (Q1)

As seen in Table 3, emerging adults exchanged considerably more text messages with their mothers (*M* = 102.84 texts over the two-week study) than their fathers (*M* = 36.69; $t(158) = -6.45$, $p < 0.001$). Among those who texted with both a mother and a father (*N* = 159), the frequency of texting with mother and texting with father texting were only weakly correlated ($r = 0.157$, $p = 0.048$).

Overall, mother-emerging adult and father-emerging adult texting frequency were mostly similar across demographic groups. Mother-emerging adult texting frequency did not vary by the emerging adult's age ($r = -0.107$, $p = 0.149$), $F(2) = 1.93$, $p = 0.147$), or gender ($F(1) = 1.84$, $p = 0.176$). Mother-emerging adult dyads from families characterized by a higher level of parent education (as a proxy for SES) tended to text message slightly

more than those from families with a lower level of parental education ($r = 0.134$, $p = 0.05$). Father-emerging adult texting frequency also did not vary by the emerging adult's age ($r = -0.053$, $p = 0.437$), race/ethnicity($F(2) = 1.94$, $p = 0.146$), gender ($F(1) = 0.05$, $p = 0.816$), or parent education ($r = 0.016$, $p = 0.534$).

Table 3. Descriptive Statistics for coded PCTICS domains.

	Mother-Emerging Adult Dyads (*N* = 215)				Father-Emerging Adult Dyads (*N* = 182)			
	M	*SD*	% w/0	Max	*M*	*SD*	% w/0	Max
Parent-EA Texting Frequency	102.84	139.52	–	1012	36.69	49.95	–	501
Monitoring								
EA Disclosure	19.33	27.84	13	177	6.19	13.19	21	163
Parent Solicitation	8.53	13.03	16	118	2.94	8.74	38	113
Parent Control	2.98	6.20	45	50	1.02	2.32	65	15
Positive Connection								
EA Warmth	3.13	5.43	39	47	1.21	3.17	60	32
Parent Warmth	6.51	10.49	21	83	2.29	4.18	41	41
EA Gratitude	2.12	3.87	38	35	0.93	1.59	55	13
Parent Gratitude	0.92	1.57	56	13	0.45	1.02	74	7
EA Emotional/Esteem Support Seeking	1.88	5.84	67	47	0.30	0.92	85	7
Parent Emotional/Esteem Support Provision	2.09	5.93	60	58	0.36	1.20	84	10
EA Instrumental Support Seeking	1.60	2.97	50	26	0.65	1.40	71	8
Parent Instrumental Support Provision	2.59	4.17	37	31	0.93	2.00	63	15
EA Advice Seeking	1.22	3.07	67	24	0.44	1.37	79	12
Parent Advice Provision	2.50	5.88	54	49	0.83	2.34	73	20

Note. EA = Emerging Adult. Means (*M*) and standard deviations (*SD*) reported across all dyads over the entire 2-week study period alongside the percent of the sample who evidenced no instances of the code (% w/0) and the maximum frequency of each code (Max) to capture the range.

3.2. How Much Are Parent-Emerging Adult Dyads Using Text Messaging for Monitoring and Positive Connection, and Are There Differences in the Frequency of Text Messaging for These Purposes between Mother-Emerging Adult and Father-Emerging Adult Dyads? (Q2)

As seen in Table 3, mother-emerging adult texts were more frequent than father-emerging adult texts across all coded domains of monitoring and positive connection (*t*s (158) ranged 3.11 to 6.11, all *p*s < 0.002). Within both mother- and father-emerging adult dyads, the most common code was emerging adult disclosure ($M_{\text{Mother Dyads}}$ = 19.33, $M_{\text{Father Dyads}}$ = 6.19), followed by parent solicitations ($M_{\text{Mother Dyads}}$ = 8.53, $M_{\text{Father Dyads}}$ = 2.94), and then parent warmth ($M_{\text{Mother Dyads}}$ = 6.51, $M_{\text{Father Dyads}}$ = 2.29). Several codes were quite infrequent, with a substantial proportion of dyads never evidencing the coded behaviors. For instance, 85% of emerging adults never texted a father and 67% never texting a mother seeking emotional/esteem support, and 84% of fathers and 60% of mothers never provided emotional/esteem support via text.

3.3. Are Parent-Emerging Adult Text Frequency and Content Related to Perceived Digital Pressure from Parents? (Q3)

Models testing associations between mother- and father-emerging adult texting frequency, PCTICS codes, and perceived parental digital pressure (alongside demographic covariates of age, gender, and parent education as a proxy for SES) all demonstrated good fit (Hu and Bentler 1999) to the data (χ^2 *p* ranged 0.043 to 0.74; RMSEA ranged < 0.001 to 0.60; SRMR ranged 0.018 to 0.034).

Emerging adults who exchanged more texts with their mothers reported stronger perceived parental digital pressure (after controlling for emerging adult gender, age, and parent education; Table 4). Once associations with mother-emerging adult texting frequency were taken into account, emerging adult perceptions of parental digital pressure were unrelated to most forms of positive connection and monitoring, with two exceptions. Those emerging adults who engaged in more disclosures and who displayed more gratitude in their text messages to mothers reported perceiving significantly less parental digital pressure.

In contrast to mother-emerging adult dyads, the frequency of father-emerging adult text interactions was unrelated to emerging adult perceptions of parental digital pressure (Table 4). All father-emerging adult codes were unrelated to emerging adult perceptions of digital pressure.

Table 4. Associations between Parent-Emerging Adult Texting Frequency and Content Codes with Emerging Adult Perceived Parental Digital Pressure.

	Perceived Parental Digital Pressure							
	Mother-Emerging Adult Dyads (*N* = 215)				Father- Emerging Adult Dyads (*N* = 182)			
	b	*SE*	*p*	*β*	*b*	*SE*	*p*	*β*
Gender (male)	0.069	0.152	0.644	0.034	−0.013	0.164	0.936	−0.006
Age	−0.074	0.047	0.118	−0.104	−0.057	0.053	0.281	−0.080
Parent Education	−0.073	0.058	0.207	−0.103	−0.083	0.073	0.258	−0.106
Parent- EA texting frequency	**0.001**	**0.001**	**0.035**	**0.194**	0.002	0.002	0.351	0.075
Monitoring								
EA Disclosure	**−0.017**	**0.006**	**0.008**	**−0.474**	−0.018	0.015	0.232	−0.231
Parent Solicitation	−0.009	0.011	0.382	−0.126	−0.004	0.017	0.795	−0.038
Parent Control	−0.009	0.020	0.650	−0.058	0.102	0.056	0.070	0.238
Positive Connection								
EA Warmth	0.001	0.025	0.970	0.005	0.028	0.034	0.399	0.090
Parent Warmth	<0.001	0.013	0.988	−0.002	0.029	0.025	0.239	0.123
EA Gratitude	**−0.045**	**0.019**	**0.015**	**−0.180**	0.047	0.049	0.332	0.075
Parent Gratitude	−0.008	0.053	0.875	−0.014	−0.009	0.091	0.921	−0.009
EA Emotional/Esteem Support Seeking	−0.023	0.015	0.111	−0.140	0.024	0.105	0.818	0.022
Parent Emotional/Esteem Support Provision	−0.020	0.022	0.373	−0.121	−0.005	0.070	0.947	−0.006
EA Instrumental Support Seeking	−0.033	0.029	0.263	−0.100	0.012	0.076	0.873	0.017
Parent Instrumental Support Provision	−0.026	0.023	0.270	−0.111	−0.038	0.066	0.565	−0.076
EA Advice Seeking	0.017	0.038	0.649	0.055	−0.057	0.061	0.349	−0.079
Parent Advice Provision	−0.002	0.018	0.932	−0.009	−0.033	0.054	0.547	−0.076

Note. The upper panel includes presents results of the initial structural equation model, which tested associations between parent-EA texting frequency with Perceived Parental Digital Pressure, alongside covariates of gender, age, and parent education (separately for Mother-Emerging Adult and Father-Emerging Adult dyads). The lower panel includes results from subsequent models, which added each PCTIC code to the model (which already included covariates and parent-EA texting frequency) separately. EA = Emerging Adult. Raw regression coefficients (*b*), standard errors (*SE*), *p* values (bolded when *p* < 0.05), and standardized regression coefficients (*β*) presented.

3.4. Are Parent-Emerging Adult Text Frequency and Content Related to Perceived Text Message Support from Parents? (Q4)

Models testing associations between mother- and father-emerging adult texting frequency, PCTICS codes, and perceived parental text message support (alongside demographic covariates of age, gender, and parent education as a proxy for SES) all demonstrated good fit (Hu and Bentler 1999) to the data (χ^2 *p* ranged 0.100 to 0.968; RMSEA ranged < 0.001 to 0.057; SRMR ranged 0.014 to 0.022).

As seen in Table 5, emerging adults who exchanged more text messages with their mothers reported higher levels of perceived digital supportiveness from parents. Once this effect of mother-emerging adult texting frequency was taken into account, only instrumental support seeking was significantly associated with emerging adult perceptions of parental text message supportiveness. Those emerging adults who engaged in *more* instrumental support seeking via text message tended to report that they used text messaging *less* for seeking out and receiving emotional support from their parents.

Among fathers, in contrast, overall texting frequency was not significantly associated with emerging adult perceived parental text supportiveness; that is, emerging adults who texted more with their fathers were no more or less likely to report that they used text messages to seek emotional support from parents. Instead, several significant associations between perceived parental text support and content codes of father-emerging adult interactions emerged. As seen in Table 5, those emerging adults who expressed more frequent gratitude in their text messages to fathers tended to report that they used text messaging more often for support seeking and receipt. As hypothesized, those emerging adults who engaged in more emotional/esteem support seeking and whose fathers pro-

vided more emotional/esteem support via text tended to self-report being heavier users of text messaging for emotional support seeking/receipt. A similar association emerged for emerging adult advice seeking and father advice provision, such that more advice seeking and provision were associated with higher perceived parental text supportiveness.

Table 5. Associations between Parent-Emerging Adult Texting Frequency and Content Codes with Emerging Adult Perceived Parental Text Support.

	Perceived Parental Text Supportiveness							
	Mothers (*N* = 215)				Fathers (*N* = 182)			
	b	*SE*	*p*	*β*	*b*	*SE*	*p*	*β*
Gender (male)	**−0.472**	**0.127**	**<0.001**	**−0.268**	**−0.487**	**0.146**	**0.001**	**−0.280**
Age	−0.052	0.039	0.182	−0.084	**−0.091**	**0.043**	**0.035**	**−0.148**
Parent Education	−0.012	0.048	0.799	−0.020	0.044	0.061	0.468	0.066
Parent-EA texting frequency	**0.001**	**<0.001**	**0.016**	**0.180**	0.001	0.001	0.488	0.050
Monitoring								
EA Disclosure	0.001	0.006	0.817	0.042	−0.008	0.011	0.474	−0.126
Parent Solicitation	0.001	0.008	0.902	0.015	−0.017	0.012	0.119	−0.189
Parent Control	0.012	0.014	0.375	0.090	−0.031	0.029	0.278	−0.084
Positive Connection								
EA Warmth	0.017	0.018	0.362	0.106	0.025	0.021	0.229	0.094
Parent Warmth	−0.010	0.009	0.288	−0.122	0.012	0.015	0.453	0.056
EA Gratitude	0.004	0.017	0.813	0.018	**0.105**	**0.037**	**0.005**	**0.196**
Parent Gratitude	−0.002	0.034	0.943	−0.004	−0.077	0.051	0.130	−0.093
EA Emotional/Esteem Support Seeking	−0.013	0.012	0.273	−0.087	**0.142**	**0.066**	**0.030**	**0.152**
Parent Emotional/Esteem Support Provision	−0.010	0.011	0.357	−0.070	**0.144**	**0.036**	**<0.001**	**0.203**
EA Instrumental Support Seeking	**−0.044**	**0.021**	**0.040**	**−0.153**	−0.015	0.054	0.780	−0.025
Parent Instrumental Support Provision	−0.031	0.019	0.115	−0.151	−0.008	0.035	0.831	−0.017
EA Advice Seeking	−0.031	0.021	0.139	−0.111	**0.095**	**0.039**	**0.014**	**0.153**
Parent Advice Provision	−0.015	0.012	0.199	−0.104	**0.070**	**0.032**	**0.027**	**0.192**

Note. The upper panel includes presents results of the initial structural equation model, which tested associations between parent-EA texting frequency with Perceived Parental Text Supportiveness, alongside covariates of gender, age, and parent education (separately for Mother-Emerging Adult and Father-Emerging Adult dyads). The lower panel includes results from subsequent models, which added each PCTIC code to the model (which already included covariates and parent-EA texting frequency) separately. EA = Emerging Adult. Raw regression coefficients (*b*), standard errors (*SE*), and standardized regression coefficients (*β*) presented alongside *p* values (bolded when *p* < 0.05).

4. Discussion

Emerging adult college students and their parents vary widely in how often they exchange text messages and in the way they use text messaging to build positive connections and to enact monitoring and disclosing behaviors. Anticipated differences in texting patterns were evident in exchanges with mothers versus fathers, though college students were generally not very reliable in reporting the frequency of their own texting behaviors. Importantly, common parenting behaviors involving positive connection and monitoring and disclosing behavior were evident in the text message exchanges of parents and emerging adults. Moreover, evidence of parents' and emerging adults' contributions to these "parenting" behaviors supported a more dyadic view of parenting in this developmental period. Finally, we found some evidence that these dyadic parenting behaviors were associated with digital analogues to autonomy and relatedness to parents in emerging adults. These findings are unique given the methodology of the current study. The examination of the frequency and content of parent-emerging adult digital interactions gives us a direct window into real-time parent-emerging adult communication that is longer and less contrived than traditional observational paradigms and less subject to the biases of self-report surveys. Our analyses of the nearly 30,000 naturally occurring text-message interactions between college students and their parents over a two-week period offered several important observations which we consider in turn.

4.1. The Nature of Text Message Exchanges between Parents and Emerging Adults

College students and their parents are in frequent text message contact, with considerable variability in the extent and nature of this contact. Direct examination of text message threads shows more frequent contact with mothers (an average of about 8 texts per day) than with fathers (an average of about 3 texts per day). Somewhat surprisingly, given concern about a digital divide in unequal access to and use of smartphone and digital technologies (Norris 2001; George et al. 2020) and past evidence of more frequent parent-adolescent digital communication among older and female adolescents (Jensen et al. 2021; Rudi et al. 2015), the frequency of parent-emerging adult text message communication did not differ by emerging adult gender, age, or race/ethnicity. Indeed, the only significant demographic difference that emerged was that emerging adults whose parents had higher levels of educational attainment exchange slightly more messages with mothers (but not fathers) compared to their peers. This suggests that there may be more similarities than differences across demographic groups in the frequency of objectively assessed parent-emerging adult texting frequency, though emerging adults and mothers with higher socioeconomic status may be slightly more likely to text message. It is also worth mentioning that this sample (of college students from an elite public university) had parents who were on average highly educated (almost half had a parent with a graduate degree, and nearly 80% had graduated college) and thus findings may not be representative of or generalize to the entire range of educational backgrounds and socioeconomic statuses present in other college settings or among non-college attending emerging adults. Within this caveat, however, these findings suggest that digital parenting shares similar characteristics across college students from varying backgrounds.

Consistent with co-construction theory's assertion that emerging adults' online worlds are "psychologically continuous" with their offline world (Subrahmanyam et al. 2008, p. 421), our findings on parent gender differences in mother- and father-emerging adult digital interactions closely correspond to gender differences observed in traditional face-to-face parent-youth interactions (Nelson et al. 2011; Smetana et al. 2006; Keijsers and Poulin 2013; Son and Padilla-Walker 2021). That is here, mother-emerging adult dyads were significantly more likely than father-emerging adult dyads to display positive connection and monitoring and disclosing behaviors in their text message exchanges. This is also consistent with recent research where youth self-report more frequent mother than father digital interactions (Miller-Ott et al. 2014; Fingerman et al. 2012). In addition, our finding of parent gender differences in objectively measured parent-emerging adult texting frequency complements past self-report survey research in which emerging adults reported that there were stronger rules, norms and expectations around when and for what purposes they could or should text their fathers than mothers (Miller-Ott et al. 2014), which the authors interpreted as evidence of greater mother availability by phone. These findings also parallel research with younger children that suggest that the majority of child caretaking activities continue to fall to mothers over fathers (Craig 2006) and that this pattern of gendered parenting continues even into emerging adulthood.

The most common "parenting" behavior in these text exchanges was disclosures by emerging adults, followed by parental solicitations. This finding may suggest that following Kerr and Stattin (2000), the knowledge that parents use to monitor child behavior is more often gathered by child disclosures rather than by parent solicitation. This pattern likely extends from those established in adolescents and emphasizes the importance of fostering communication patterns, on or offline, that create a safe and supportive space in which youth feel comfortable disclosing to parents. That such patterns continue into emerging adulthood in a digital context is perhaps not surprising given that adolescent reports that texting is a convenient way to update parents on their location and activities (Fletcher et al. 2018).

Texts around positive connection (especially expressions of support seeking and provision) occurred relatively infrequently. Despite their infrequence within text message streams, the exchange of texts about positive connection were still evident within most

dyads; most mothers and fathers expressed warmth toward their emerging adults over the study period and about half of youth did so toward parents. Notably, 52% of dads and 77% of mothers provided support via text (whether emotional esteem, instrumental, or advice) over the two-week study period and 66% of youth sought support from mothers and 44% from fathers. This is consistent with our recent self-report research among younger adolescents (Jensen et al. 2021), where text-based social support was relatively uncommon but quite variable across dyads. Moreover, this finding once again reflects the dyadic nature of support in parent-emerging adult relationships. To better understand how support is most effectively delivered (e.g., whether in response to youth bids for support, whether as matched in type to that requested by youth), further analyses are needed.

4.2. Associations between Digital Parenting and Analogue Milestones in Emerging Adulthood

Although inconsistent, we found evidence that the content of text exchanges between parents and emerging adults is related to digital analogues of the developmental milestones of autonomy and relatedness. More specifically, the more frequently emerging adults texted with their mothers, the more likely they were to report feeling pressure to be available and responsive to parents online. The same association, however, was not apparent in emerging adults' interactions with fathers. Given that fathers and emerging adults exchanged far fewer text messages than mothers and emerging adults, father-emerging adult texting may not be as strongly tied to perceived parental digital pressure, especially given that our measure of digital pressure (which was worded about "your parent") did not distinguish between perceptions of mothers and fathers. In fact, higher mother-emerging adult texting frequency may have made this dyad more salient when emerging adults were self-reporting on perceived digital pressure. This parent gender difference may also be consistent with past findings that father-emerging adult digital communications are characterized by stronger boundaries and rules (e.g., around time and extent of availability) than mother-emerging adult digital communications (Miller-Ott et al. 2014) and thus perhaps present fewer opportunities for intrusion.

In previous studies digital pressure from peers has been associated with less friendship satisfaction (Hall and Baym 2012). Our findings indicate the digital pressure may also be relevant in the parent-youth relationship, though overall low levels of perceived parental digital pressure suggest that many youths are not overly concerned or bothered by their parents' digital communications (similar to past research suggesting high levels of emerging adult satisfaction with parent cell phone contacts; Miller-Ott et al. 2014).

Although the frequency of mother-emerging adult interactions was related to more perceived digital pressure, most coded domains of parent-emerging adult positive connection and monitoring (even those we hypothesized would be the most strongly linked with perceptions of parents as intrusive: parental solicitation and control) were not related to emerging adult perceptions of digital pressure. Indeed, the only texting behaviors that were associated with perceived digital pressure were the extent to which emerging adults made disclosures and conveyed gratitude in their text messages with mothers (both of which were linked to lower perceived parental digital pressure). These results suggest that emerging adult perceptions of intrusiveness and pressure to engage digitally are perhaps primarily driven by the frequency (rather than the content) of parent text messaging, though perhaps (not surprisingly, and consistent with past self-report studies on youth-driven cell phone communications; Weisskirch 2009, 2011) certain types of emerging adult-driven communications may be valued and perceived positively (and not as intrusive) by emerging adults.

These results may inform theories about the nature of positive connection and monitoring and disclosing behaviors during emerging adulthood. In particular these results draw into question the accuracy of modern theories on "helicopter parenting" which often assert that Millennial and Gen Z youth are over-monitored and over-supported/coddled (with frequent digital communication cited as one tool for overparenting; Padilla-Walker and Nelson 2012; Jiao and Segrin 2021). It may be that emerging adults and their parents have

established new norms for parent-emerging adult engagement in which even monitoring (traditionally seen as developmentally inappropriate at this stage) does not have to be intrusive or autonomy inhibiting when conceptualized as a bi-directional, transactional process in which parents ask developmentally appropriate questions to check in about the child's wellbeing, and the child chooses to disclose in turn.

Interestingly, not only did youth who texted more often with mothers tend to report greater parental digital pressure, they also tended to endorse more experiences of parental text-based supportiveness. This is in line with recent findings that those adolescents who self-report texting more with parents also report having a closer parent-adolescent relationship (Manago et al. 2020). Emerging adults who engaged in more instrumental support seeking also tended to endorse *less* perceived parental text support. This is opposite of the hypothesized association but may highlight the importance of distinguishing between different types of support parents enact (i.e., emotional/esteem vs. instrumental vs. advice) and the extent of support emerging adults perceive in their relationships with parents. An important future direction for this research will be to examine match/mismatch (Wang 2019) of emerging adult expectations (i.e., quantity and type of support seeking) and parent provision (both quantity and type) of support; it may be that it is not the absolute quantity of support provision that matters so much as the extent to which it is appropriately responsive to emerging adult expectations and needs. Moreover, given the cross-sectional design, it is unclear if parents offering support decreases bids for support in youth as well as distress versus parents offer more support in response to youth distress and bids for support. Prospective studies are needed to untangle these mechanisms.

In contrast, father-emerging adult texting frequency was not associated with perceived parental text message support. It is again possible that this lack of association in father-emerging adult dyads may be driven by greater texting frequency with mothers making that relationship more salient when emerging adults responded to the parental text supportiveness measure which asked about "your parents" rather than mothers and fathers separately. However, several codes emerged as important correlates of perceived parental text support. Emerging adults whose texts to fathers included more gratitude, emotional/esteem support seeking, and advice seeking reported having parents who were more supportive via text message. Similarly, fathers who provided more emotional/esteem support and advice had emerging adults who reported more perceived parental support. This underscores the validity of objectively coded parent-youth text interactions, and highlights that, even though they are infrequent, supportive father-emerging adult text message interactions may reflect a stronger parent-emerging adult relationship. These differences in mother and father dyads may also suggest that in mother-emerging adult dyads (where contact is more frequent) the frequency of contact may more strongly impact the nature of the underlying relationship, whereas in father-emerging adult dyads (where text contact is much less frequent) the content shines through. As much past research has not parsed the differences between mother and father dyadic text communication (Manago et al. 2020; Ehrenreich et al. 2020), it will be important for future research to consider parental gender difference in the frequency and potential impact of parent-emerging adult text messaging.

4.3. Methodological Observations

As suggested in the literature (Gold et al. 2015; Parry et al. 2021), emerging adults in the current study were not very accurate at estimating how much they text with parents, with the number of texts exchanged with parents being only modestly correlated ($r = 0.36$) with self-reported frequency of parent text message contact by emerging adults. This highlights the importance of moving beyond self-reported frequency of digital contact and towards objective assessment using tools like billing records and device logs. Here, the examination of quantitative meta data (on objective parent-emerging adult text frequency) and qualitative codes of parent-emerging adult interactions tapping positive connection and monitoring suggest that text messages are a rick source of information about the content of parent-emerging adult digital exchanges.

Results also underscore, however, some of the challenges and barriers to operationalizing nuanced dimensions of the parent-emerging adult relationship within the content of text messages. There was substantial variability in interrater agreement amongst codes. In particular, interrater reliability for some low base rate codes indexing emerging adult seeking and parental provision of different types of support fell below Krippendorff's (1980, 2018) recommended cutoff of 0.67 for drawing valid conclusions from content analysis. Importantly, high rates of inter-rater agreement which are less impacted by low base rates (all above 87%) were reported. Our experience here is that it is in fact quite difficult to train coders to perfect agreement on the nuanced distinction between different types of social support, especially as they manifest within brief (sometimes single word or short phrase) text messages and without the benefit of context clues and nonverbal signals. For example, coders sometimes struggled to parse distinctions like whether a text in which a mother gave detailed feedback on a college essay was more consistent with instrumental support (doing the child a favor by reading their essay) and/or informational support/advice. Nonetheless, we think even these lower reliability codes have value, given that they are quite consistent with the magnitude of interrater agreement in the only other study of parent-child text message content (Ehrenreich et al. 2020). In addition, these metrics of reliability focus on interrater agreement at the level of individual text messages, but when we consider interrater agreement at the level of the parent-emerging adult dyad over the course of the two-week study period (the level of analysis in the current study) interrater agreement rates (correlations) are exceedingly high (>0.98). Future analyses that focus on smaller time scales within text-message analyses (within days or day-to-day exchanges), may best consider superordinate domains of interest (i.e., positive connection and monitoring and disclosing behaviors) for which more acceptable reliability estimates were evident ($K_{\text{EA positive connection}} = 0.78$, $K_{\text{Parent positive connection}} = 0.74$, $K_{\text{Parent monitoring}} = 0.78$). It must also be noted that low interrater reliability can increase the likelihood of Type II errors (false negatives), and thus it is possible that improved measurement of these constructs might reveal additional associations.

4.4. Strengths, Limitations, and Future Directions

Strengths of this study include direct observation of digital communication rather than self-reports of such behaviors, inclusion of fathers and mothers, and consideration of offline and online dimensions of these parent-emerging adult relationships. Still, this study has several limitations that deserve consideration. First, despite the rich, intensive-longitudinal nature of the observational text message data, the analyses conducted here are essentially cross-sectional. Future longitudinal research is needed to disentangle the temporal associations between parent-emerging adult digital engagement and features of the parent-emerging adult relationship. Second, this study captured a short snapshot (2 weeks) of only one platform for parent-emerging adult interaction and did not allow for analysis of interactions on other technologically mediated platforms (e.g., phone calls, social media, other private messaging applications) nor interactions occurring face-to-face. With the rapidly changing face of digital technology, this is likely to always be a challenge, though the fundamental methods and core constructs presented here provide a basis upon which to advance this evolving literature. Third, reports of emerging adult perceived parental digital pressure and parental text support did not distinguish between separate perceptions of mothers and fathers. Despite these limitations, this study lays the groundwork for future research which can more finely parse perceptions of mothers and fathers (and ideally, other parent figures and caregivers) alongside the content of dyadic digital communications.

5. Conclusions

5.1. Implications for 21st Century Parenting and Parent-Emerging Adult Relationships

The present study has implications for parenting, education and practice with emerging adults in the 21st century. Parents remain a salient part of emerging adults' social

networks during the college years and digital communication is a core platform for parent-youth interactions in the modern era. Results here suggest that text messaging serves diverse purposes, including positive connection as well as monitoring and disclosing. Moreover, traditional developmental tasks, such as maintaining relatedness while establishing autonomy, may play out online as well as offline. For college students not living at home, digital communication may thus serve as an important tool for navigating these tasks in emerging adulthood. Educators and practitioners working with emerging adults (e.g., college administrators, mental health and career counselors) would do well to consider the ongoing and important role of parents in emerging adults' healthy psychosocial development and to leverage parent (digital and face to face) supports as potential assets.

5.2. Implications for Future Research

Results here can also greatly inform future research. Given the low correlation between perceptions of text messaging frequency and actual recorded texting behaviors, these analyses demonstrate the potential advantages of directly observing naturally occurring parent-emerging adult interactions through an increasingly used communication platform, particularly for those living away from home. In addition to qualitative coding schemes (such as the PCTICS) to capture the content of parent-youth text messages, researchers can learn much about relationship dynamics from indices derived from meta-data (e.g., frequency, timing, latency to response), quantitative analysis of words using established and newly developed dictionaries (Jensen and Hussong 2021), and machine learning approaches. In short, the potential for analysis of text message data to explore relationship dynamics is remains to be fully tapped. Although many of these applications have been applied to public-facing social networking site content, further consideration of what happens in parent-emerging adult private messaging is likely to provide novel insights. This burgeoning field is just beginning. The current study adds to the needed theoretical and methodological work for not only understanding relationships between parents and emerging adults in the digital era but also for leveraging digital communication as a platform for prevention and intervention.

Conflicts of Interest: The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

References

Aledavood, Talayeh, Eduardo López, Sam G. B. Roberts, Felix Reed-Tsochas, Esteban Moro, Robin I. M. Dunbar, and Jari Saramäki. 2016. Channel-Specific Daily Patterns in Mobile Phone Communication. In *Proceedings of ECC 2014*. Edited by Stefano Battiston, Francesco De Pellegrini, Guido Caldarelli and Emanuela Merelli. Cham: Springer, pp. 209–18. [CrossRef]

Arnett, Jeffrey Jensen. 2000. Emerging Adulthood: A Theory of Development from the Late Teens through the Twenties. *American Psychologist* 55: 469–80. [CrossRef]

Arnett, Jeffrey Jensen. 2014. *Emerging Adulthood: The Winding Road from the Late Teens through the Twenties*. Oxford: Oxford University Press.

Arnett, Jeffrey Jensen, and Joseph Schwab. 2013. *The Clark University Poll of Parents of Emerging Adults*. Worcester: Clark University. Available online: http://www2.clarku.edu/clark-poll-emerging-adults/pdfs/clark-university-poll-parents-emerging-adults.pdf (accessed on 1 July 2021).

Barrera, Manuel, Jr., and Sheila L. Ainlay. 1983. The Structure of Social Support: A Conceptual and Empirical Analysis. *Journal of Community Psychology* 11: 133–43. [CrossRef]

Barry, Carolyn McNamara, Laura M. Padilla-Walker, Stephanie D. Madsen, and Larry J. Nelson. 2008. The Impact of Maternal Relationship Quality on Emerging Adults' Prosocial Tendencies: Indirect Effects via Regulation of Prosocial Values. *Journal of Youth and Adolescence* 37: 581–91. [CrossRef]

Baumeister, Roy F., and Mark R. Leary. 1995. The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation. *Psychological Bulletin* 117: 497. [CrossRef]

Baumrind, Diana. 1966. Effects of Authoritative Parental Control on Child Behavior. *Child Development* 37: 887. [CrossRef]

Baumrind, Diana. 1991. The Influence of Parenting Style on Adolescent Competence and Substance Use. *The Journal of Early Adolescence* 11: 56–95. [CrossRef]

Benito-Gomez, Marta, Kenneshia N. Williams, Amy McCurdy, and Anne C. Fletcher. 2020. Autonomy-supportive Parenting in Adolescence: Cultural Variability in the Contemporary United States. *Journal of Family Theory & Review* 12: 7–26.

Campbell, Rachel. 2006. Teenage Girls and Cellular Phones: Discourses of Independence, Safety and 'Rebellion'. *Journal of Youth Studies* 9: 195–212. [CrossRef]

Chen, Yi-Fan Fan, and James E. Katz. 2009. Extending Family to School Life: College Students' Use of the Mobile Phone. *International Journal of Human Computer Studies* 67: 179–91. [CrossRef]

Collins, W. Andrew, Eleanor E. Maccoby, Laurence Steinberg, E. Mavis Hetherington, and Marc H. Bornstein. 2000. Contemporary Research on Parenting. *American Psychologist* 55: 218–32. [CrossRef]

Cox, Martha J., and Kristina S. M. Harter. 2003. Parent-Child Relationships. In *Well-Being: Positive Development across the Life Course*. Edited by Marc H. Bornstein, Lucy Davidson, Corey L. M. Keyes and Kristin A. Moore. New York: Lawrence Erlbaum Associates Publishers, pp. 191–204.

Craig, Lyn. 2006. Does Father Care Mean Fathers Share? A Comparison of How Mothers and Fathers in Intact Families Spend Time with Children. *Gender & Society* 20: 259–81.

Cutrona, Carolyn E., and Daniel W. Russell. 1990. Type of social support and specific stress: Toward a theory of optimal matching. In *Social Support: An Interactional View*. Edited by Barbara R. Sarason, Irwin G. Sarason and Gregory R. Pierce. New York: John Wiley & Sons, pp. 319–66.

De Goede, Irene H. A., Susan J. T. Branje, and Wim H. J. Meeus. 2009. Developmental Changes in Adolescents' Perceptions of Relationships with Their Parents. *Journal of Youth and Adolescence* 38: 75–88. [CrossRef] [PubMed]

Dishion, Thomas J., Gerald R. Patterson, Michael Stoolmiller, and Martie L. Skinner. 1991. Family, School, and Behavioral Antecedents to Early Adolescent Involvement with Antisocial Peers. *Developmental Psychology* 27: 172–80. [CrossRef]

Eccles, Jacquelynne S., Carol Midgley, Allan Wigfield, Christy Miller Buchanan, David Reuman, Constance Flanagan, and Douglas Mac Iver. 1993. Development during Adolescence: The Impact of Stage–Environment Fit on Young Adolescents' Experiences in Schools and in Families. *American Psychologist* 48: 90–101. [CrossRef]

Eggebeen, David J. 1992. Family Structure and Intergenerational Exchanges. *Research on Aging* 14: 427–47. [CrossRef]

Ehrenreich, Samuel E., Kurt J. Beron, Kaitlyn Burnell, Diana J. Meter, and Marion K. Underwood. 2020. How Adolescents Use Text Messaging through Their High School Years. *Journal of Research on Adolescence* 30: 521–40. [CrossRef]

Erikson, Erik H. 1968. *Identity: Youth and Crisis*. New York: Norton.

Eshghinejad, Shahrzad, and M. Raouf Moini. 2016. Politeness Strategies Used in Text Messaging: Pragmatic Competence in an Asymmetrical Power Relation of Teacher–Student. *SAGE Open* 6: 2158244016632288. [CrossRef]

Fingerman, Karen L., Yen-Pi Cheng, Lauren Tighe, Kira S. Birditt, and Steven Zarit. 2012. Relationships Between Young Adults and Their Parents. In *Early Adulthood in a Family Context*. Edited by Alan Booth, Susan L. Brown, Nancy S. Landale, Wendy D. Manning and Susan M. McHale. New York: Springer, pp. 59–85. [CrossRef]

Fletcher, Anne C., Marta Benito-Gomez, and Bethany L. Blair. 2018. Adolescent Cell Phone Communications with Mothers and Fathers: Content, Patterns, and Preferences. *Journal of Child and Family Studies* 27: 2125–37. [CrossRef]

Franz, Carol E., and Kathleen M. White. 1985. Individuation and Attachment in Personality Development: Extending Erikson's Theory. *Journal of Personality* 53: 224–56. [CrossRef]

Froh, Jeffrey J., Jinyan Fan, Robert A. Emmons, Giacomo Bono, E. Scott Huebner, and Philip Watkins. 2011. Measuring Gratitude in Youth: Assessing the Psychometric Properties of Adult Gratitude Scales in Children and Adolescents. In *Psychological Assessment*. Hempstead: Department of Psychology, Hofstra University. [CrossRef]

Furman, Wyndol, and Duane Buhrmester. 1985. Children's Perceptions of the Personal Relationships in Their Social Networks. *Developmental Psychology* 21: 1016–24. [CrossRef]

Galambos, Nancy L., Erin T. Barker, and David M. Almeida. 2003. Parents Do Matter: Trajectories of Change in Externalizing and Internalizing Problems in Early Adolescence. *Child Development* 74: 578–94. [CrossRef]

Gentzler, Amy L., Ann M. Oberhauser, David Westerman, and Danielle K. Nadorff. 2011. College Students' Use of Electronic Communication with Parents: Links to Loneliness, Attachment, and Relationship Quality. *Cyberpsychology, Behavior, and Social Networking* 14: 71–74. [CrossRef]

George, Madeleine J., Michaeline Jensen, Michael A. Russell, Anna Gassman-Pines, William E. Copeland, Rick H. Hoyle, and Candice L. Odgers. 2020. Young Adolescents' Digital Technology Use, Perceived Impairments, and Well-Being in a Representative Sample. *Journal of Pediatrics* 219: 180–87. [CrossRef]

Gold, Judith E., Kimberly J. Rauscher, and Motao Zhu. 2015. A Validity Study of Self-Reported Daily Texting Frequency, Cell Phone Characteristics, and Texting Styles among Young Adults. *BMC Research Notes* 8: 120. [CrossRef] [PubMed]

Gray, Marjory Roberts, and Laurence Steinberg. 1999. Unpacking Authoritative Parenting: Reassessing a Multidimensional Construct. *Journal of Marriage and the Family* 61: 574. [CrossRef]

Green, Kevin McLeod. 2007. *Understanding College Students' and Parents' Perceptions of Cell Phone Communication in Family Relationships: A Grounded Theory Approach*. Minneapolis: University of Minnesota.

Hall, Jeffrey A., and Nancy K. Baym. 2012. Calling and Texting (Too Much): Mobile Maintenance Expectations, (over)Dependence, Entrapment, and Friendship Satisfaction. *New Media and Society* 14: 316–31. [CrossRef]

Hamza, Chloe A., and Teena Willoughby. 2011. Perceived Parental Monitoring, Adolescent Disclosure, and Adolescent Depressive Symptoms: A Longitudinal Examination. *Journal of Youth and Adolescence* 40: 902–15. [CrossRef]

High-Risk Alcohol and Substance Abuse Working Group. 2015. High-Risk Alcohol and Substance Abuse Working Group Report. Available online: https://studentaffairs.unc.edu/wp-content/uploads/2021/01/Campus-HRASA-Final-12.07.15.pdf (accessed on 20 October 2021).

Holtzman, Susan, Drew DeClerck, Kara Turcotte, Diana Lisi, and Michael Woodworth. 2017. Emotional Support during Times of Stress: Can Text Messaging Compete with in-Person Interactions? *Computers in Human Behavior* 71: 130–39. [CrossRef]

House, James S., Debra Umberson, and Karl R. Landis. 1988. Structures and Processes of Social Support. *Annual Review of Sociology* 14: 293–318. [CrossRef]

Hu, Li-tze, and Peter M. Bentler. 1999. Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria versus New Alternatives. *Structural Equation Modeling: A Multidisciplinary Journal* 6: 1–55. [CrossRef]

Hussong, Andrea M., and Laurie Chassin. 2004. Stress and Coping among Children of Alcoholic Parents through the Young Adult Transition. *Development and Psychopathology* 16: 985–1006. [CrossRef]

Hussong, Andrea M., Richard E. Hicks, Suzanne A. Levy, and Patrick J. Curran. 2001. Specifying the Relations between Affect and Heavy Alcohol Use among Young Adults. *Journal of Abnormal Psychology* 110: 449–61. [CrossRef]

Hussong, Andrea M., Michaeline Jensen, Sarah Morgan, and Jade Poteat. 2021. Collecting Text Messages from College Students: Evaluating a Novel Methodology. *Social Development* 30: 3–22. [CrossRef]

Hussong, Andrea M., Allegra Midgette, and William A. Rothenberg. n.d. The Parenting of Adolescents and Young Adults in the United States. In *APA Handbook of Adolescent and Young Adult Development*. Edited by Lisa Crockett, Gustavo Carlo and John Schulenberg. Washington, DC: APA.

Jennings, Nancy A., and Ellen A. Wartella. 2012. Digital Technology and Families. In *The Routledge Handbook of Family Communication*. Edited by Anita L. Vangelisti. New York: Routledge, pp. 460–74.

Jensen, M. 2017. Parent-Child Text Interaction Coding Scheme (PCTICS) Manual. Unpublished Manual.

Jensen, Michaeline, and Andrea M. Hussong. 2021. Text Message Content as a Window into College Student Drinking: Development and Initial Validation of a Dictionary of 'Alcohol-Talk'. *International Journal of Behavioral Development* 45: 3–10. [CrossRef]

Jensen, Michaeline, Madeleine J. George, Michael A. Russell, Melissa A. Lippold, and Candice O. Odgers. 2021. Daily Parent-Adolescent Digital Exchanges. *Research on Child an Adolescent Psychopathology* 49: 1125–38. [CrossRef]

Jiao, Jian, and Chris Segrin. 2021. Parent–Emerging-Adult-Child Attachment and Overparenting. *Family Relations* 70: 859–65. [CrossRef]

Kasesniemi, Eija-Liisa, and Pirjo Rautiainen. 2002. 11 Mobile Culture of Children and Teenagers in Finland. In *Perpetual Contact*. Edited by James E. Katz and Mark Aakhus. Cambridge: Cambridge University Press, pp. 170–92.

Keijsers, Loes, and François Poulin. 2013. Developmental Changes in Parent–Child Communication throughout Adolescence. *Developmental Psychology* 49: 2301. [CrossRef]

Keijsers, Loes, Tom Frijns, Susan J. T. Branje, and Wim Meeus. 2009. Developmental Links of Adolescent Disclosure, Parental Solicitation, and Control with Delinquency: Moderation by Parental Support. *Developmental Psychology* 45: 1314. [CrossRef]

Kerr, Margaret, and Håkan Stattin. 2000. What Parents Know, How They Know It, and Several Forms of Adolescent Adjustment: Further Support for a Reinterpretation of Monitoring. *Developmental Psychology* 36: 366–80. [CrossRef]

Krippendorff, Klaus. 1980. Validity in Content Analysis. In *Computerstrategien für di kommunikationsanalyse*. Edited by Ekkehard Mochmann. Frankfurt: Campus, pp. 69–112.

Krippendorff, Klaus. 2018. Content Analysis: An Introduction to Its Methodology. In *International Encyclopedia of Communication*. Edited by Erik Barnouw, George Gerbner, Wilbur Schramm, Tobias L. Worth and Larry Gross. New York: Oxford University Press, Vol. 1, pp. 403–407.

Kurdek, Lawrence A., and Mark A. Fine. 1994. Family Acceptance and Family Control as Predictors of Adjustment in Young Adolescents: Linear, Curvilinear, or Interactive Effects? *Child Development* 65: 1137. [CrossRef]

Landis, J. Richard, and Gary G. Koch. 1977. The Measurement of Observer Agreement for Categorical Data. *Biometrics* 33: 159–74. [CrossRef]

Larson, Reed W., Maryse H. Richards, Giovanni Moneta, Grayson Holmbeck, and Elena Duckett. 1996. Changes in Adolescents' Daily Interactions with Their Families from Ages 10 to 18: Disengagement and Transformation. *Developmental Psychology* 32: 744. [CrossRef]

Lauricella, Alexis R., Drew P. Cingel, Leanne Beaudoin-Ryan, Michael B. Robb, Melissa Saphir, and Ellen A. Wartella. 2016. *The Common Sense Census: Plugged-In Parents of Tweens and Teens*. San Francisco: Common Sense Media.

Ling, Richard, and Birgitte Yttri. 2002. Hyper-coordination via mobile phones in Norway. In *Perpetual Contact: Mobile Communication, Private Talk, Public Performance*. Edited by James E. Katz and Mark Aakhus. Cambridge: Cambridge University Press, pp. 139–67.

Liu, Amy, Jessica Sharkness, and John H. Pryor. 2008. *Findings from the 2007 Administration of Your First College Year (YFCY): National Aggregates*. Los Angeles: Higher Education Research Institute UCLA.

Maccoby, Eleanor E., and John Martin. 1983. Socialization in the Context of the Family: Parent-Child Interaction. In *Handbook of Child Psychology: Vol. 4. Socialization, Personality, and Social Development*. Edited by Paul Mussen and E. Mavis Hetherington. New York: Wiley, pp. 1–101.

Maggs, Jennifer L., and Nancy L. Galambos. 1993. Alternative Structural Models for Understanding Adolescent Problem Behavior in Two-Earner Families. *The Journal of Early Adolescence* 13: 79–101. [CrossRef]

Manago, Adriana M., Genavee Brown, Kendall A. Lawley, and Glenn Anderson. 2020. Adolescents' Daily Face-to-Face and Computer-Mediated Communication: Associations with Autonomy and Closeness to Parents and Friends. In *Developmental Psychology*. Santa Cruz: Department of Psychology, University of California. [CrossRef]

McKee, Laura, Christina Colletti, Aaron Rakow, Deborah J. Jones, and Rex Forehand. 2009. Parenting and Child Externalizing Behaviors: Are the Associations Specific or Diffuse? *Aggression and Violent Behavior* 13: 201–15. [CrossRef]

Melby, Janet N., and Rand D. Conger. 2001. The Iowa Family Interaction Rating Scales: Instrument Summary. In *Family Observational Coding Systems: Resources for Systemic Research*. Edited by Patricia K. Kerig and Kristin M. Lindahl. Mahwah: Lawrence Erlbaum Associates Publishers, pp. 33–58.

Miller-Ott, Aimee E., Lynne Kelly, and Robert L. Duran. 2014. Cell Phone Usage Expectations, Closeness, and Relationship Satisfaction between Parents and Their Emerging Adults in College. *Emerging Adulthood* 2: 313–23. [CrossRef]

Mullendore, Richard, Christina Daniel, and Michael Toney. 2018. The Role of Parents in Emerging Adulthood. In *Emerging Adulthood and Higher Education*. Edited by Joseph L. Murray and Jeffrey Jensen Arnett. New York: Routledge, pp. 110–26.

Nelson, Larry J., Laura M. Padilla-Walker, Katherine J. Christensen, Cortney A. Evans, and Jason S. Carroll. 2011. Parenting in Emerging Adulthood: An Examination of Parenting Clusters and Correlates. *Journal of Youth and Adolescence* 40: 730–43. [CrossRef]

Norris, Pippa. 2001. *Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide*. Cambridge: Cambridge University Press. [CrossRef]

O'Connor, Thomas G., Joseph P. Allen, Kathy L. Bell, and Stuart T. Hauser. 1996. Adolescent-Parent Relationships and Leaving Home in Young Adulthood. *New Directions for Child Development* 1996: 39–52. [CrossRef]

Ouellette, Gene, and Melissa Michaud. 2016. Generation Text: Relations among Undergraduates' Use of Text Messaging, Textese, and Language and Literacy Skills. *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement* 48: 217. [CrossRef]

Padilla-Walker, Laura M., and Larry J. Nelson. 2012. Black Hawk down?: Establishing Helicopter Parenting as a Distinct Construct from Other Forms of Parental Control during Emerging Adulthood. *Journal of Adolescence* 35: 1177–90. [CrossRef]

Padilla-Walker, Laura M., and Larry J. Nelson. 2019. Parenting Emerging Adults. In *Handbook of Parenting: Children and Parenting*, 3rd ed. New York: Routledge/Taylor & Francis Group, vol. 1, pp. 168–90. [CrossRef]

Padilla-Walker, Laura M., Gustavo Carlo, Katherine J. Christensen, and Jeremy B. Yorgason. 2012. Bidirectional Relations between Authoritative Parenting and Adolescents' Prosocial Behaviors. *Journal of Research on Adolescence* 22: 400–8. [CrossRef]

Padilla-Walker, Laura M., Larry J. Nelson, and Darin J. Knapp. 2014. 'Because I'm Still the Parent, That's Why!' Parental Legitimate Authority during Emerging Adulthood. *Journal of Social and Personal Relationships* 31: 293–313. [CrossRef]

Parry, Douglas A., Brittany I. Davidson, Craig J. R. Sewall, Jacob T. Fisher, Hannah Mieczkowski, and Daniel S. Quintana. 2021. A Systematic Review and Meta-Analysis of Discrepancies between Logged and Self-Reported Digital Media Use. *Nature Human Behaviour* 5: 1535–47. [CrossRef]

Platt, Carrie Anne, Renee Bourdeaux, and Nancy DiTunnariello. 2014. Should I Text or Should I Call?: How College Students Navigate Mediated Connections with Family. *Communication and Information Technologies Annual* 8: 75–101. [CrossRef]

Racz, Sarah Jensen, Sarah Lindstrom Johnson, Catherine P. Bradshaw, and Tina L. Cheng. 2017. Parenting in the Digital Age: Urban Black Youth's Perceptions about Technology-Based Communication with Parents. *Journal of Family Studies* 23: 198–214. [CrossRef]

Ramsey, Meagan A., Amy L. Gentzler, Jennifer N. Morey, Ann M. Oberhauser, and David Westerman. 2013. College Students' Use of Communication Technology with Parents: Comparisons Between Two Cohorts in 2009 and 2011. *Cyberpsychology, Behavior, and Social Networking* 16: 747–52. [CrossRef] [PubMed]

Rasmussen, Kristen, Jack Komperda, and Raymond Baldino. 2012. *Reporter's Recording Guide*. Arlington: The Reporters Committee for Freedom of the Press.

Reeves, Byron, Thomas Robinson, and Nilam Ram. 2020. Time for the Human Screenome Project. *Naure* 577: 314–17. [CrossRef]

River, Laura M., Maggie O'Reilly Treter, Galena K. Rhoades, and Angela J. Narayan. 2021. Parent–Child Relationship Quality in the Family of Origin and Later Romantic Relationship Functioning: A Systematic Review. *Family Process*. [CrossRef]

Rudi, Jessie, and Jodi Dworkin. 2018. Is Technology-Mediated Parental Monitoring Related to Adolescent Substance Use? *Substance Use & Misuse* 53: 1331–41. [CrossRef]

Rudi, Jessie, Jodi Dworkin, Susan Walker, and Jennifer Doty. 2015. Parents' Use of Information and Communications Technologies for Family Communication: Differences by Age of Children. *Information Communication and Society* 18: 78–93. [CrossRef]

Ryan, Richard M., and Edward L. Deci. 2000. Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist* 55: 68–78. [CrossRef]

Ryan, Richard M., and John H. Lynch. 1989. Emotional Autonomy versus Detachment: Revisiting the Vicissitudes of Adolescence and Young Adulthood. *Child Development* 60: 340–56. [CrossRef]

Schaefer, Earl S. 1965. Children's Reports of Parental Behavior: An Inventory. *Child Development* 36: 413–24. [CrossRef] [PubMed]

Shadur, Julia M., Andrea M. Hussong, and Maleeha Haroon. 2015. Negative Affect Variability and Adolescent Self-Medication: The Role of the Peer Context. *Drug and Alcohol Review* 34: 571–80. [CrossRef] [PubMed]

Small, Meg L., Nicole Morgan, Caitlin Abar, and Jennifer L. Maggs. 2011. Protective Effects of Parent-College Student Communication during the First Semester of College. *Journal of American College Health* 59: 547–54. [CrossRef] [PubMed]

Small, Meg L., Nicole Morgan, Lisa Bailey-Davis, and Jennifer L. Maggs. 2013. The Protective Effects of Parent-College Student Communication on Dietary and Physical Activity Behaviors. *Journal of Adolescent Health* 53: 300–2. [CrossRef]

Smetana, Judith G., Aaron Metzger, Denise C. Gettman, and Nicole Campione-Barr. 2006. Disclosure and Secrecy in Adolescent–Parent Relationships. *Child Development* 77: 201–17. [CrossRef]

Son, Daye, and Laura M. Padilla-Walker. 2021. Whereabouts and Secrets: A Person-Centered Approach to Emerging Adults' Routine and Self-Disclosure to Parents. *Emerging Adulthood* 9: 145–57. [CrossRef]

Stattin, Haäkan, and Margaret Kerr. 2000. Parental Monitoring: A Reinterpretation. *Child Development* 71: 1072–85. [CrossRef]

Subrahmanyam, Kaveri, David Smahel, and Patricia Greenfield. 2006. Connecting Developmental Constructions to the Internet: Identity Presentation and Sexual Exploration in Online Teen Chat Rooms. *Developmental Psychology* 42: 395–406. [CrossRef]

Subrahmanyam, Kaveri, Stephanie M. Reich, Natalia Waechter, and Guadalupe Espinoza. 2008. Online and Offline Social Networks: Use of Social Networking Sites by Emerging Adults. *Journal of Applied Developmental Psychology* 29: 420–33. [CrossRef]

Swartz, Teresa Toguchi, Minzee Kim, Mayumi Uno, Jeylan Mortimer, and Kirsten Bengtson O'Brien. 2011. Safety Nets and Scaffolds: Parental Support in the Transition to Adulthood. *Journal of Marriage and Family* 73: 414–29. [CrossRef] [PubMed]

Underwood, Marion K., Lisa H. Rosen, David More, Samuel E. Ehrenreich, and Joanna K. Gentsch. 2012. The Blackberry Project: Capturing the Content of Adolescents' Text Messaging. *Developmental Psychology* 48: 295–302. [CrossRef] [PubMed]

Urry, Shirene A, Larry J. Nelson, and Laura M. Padilla-Walker. 2011. Mother Knows Best: Psychological Control, Child Disclosure, and Maternal Knowledge in Emerging Adulthood. *Journal of Family Studies* 17: 157–73. [CrossRef]

Walker, Susan K., and Jessie H. Rudi. 2014. Parenting Across the Social Ecology Facilitated by Information and Communications Technology: Implications for Research and Educational Design. *Journal of Human Science and Extension* 2: 15–32.

Wang, Ningxin. 2019. Emerging Adults' Received and Desired Support from Parents: Evidence for Optimal Received–Desired Support Matching and Optimal Support Surpluses. *Journal of Social and Personal Relationships* 36: 3448–70. [CrossRef]

Weisskirch, Robert S. 2009. Parenting by Cell Phone: Parental Monitoring of Adolescents and Family Relations. *Journal of Youth and Adolescence* 38: 1123–39. [CrossRef] [PubMed]

Weisskirch, Robert S. 2011. No Crossed Wires: Cell Phone Communication in Parent-Adolescent Relationships. *Cyberpsychology, Behavior, and Social Networking* 14: 447–51. [CrossRef] [PubMed]

Williams, Stephen, and Lynda Williams. 2005. Space Invaders: The Negotiation of Teenage Boundaries through the Mobile Phone. *Sociological Review* 53: 314–31. [CrossRef]

Wills, Thomas A., and Ori Shinar. 2000. Measuring Perceived and Received Social Support. In *Social Support Measurement and Intervention: A Guide for Health and Social Scientists*. Edited by Sheldon Cohen, Lynn G. Underwood and Benjamin H. Gottlieb. New York: Oxford University Press, pp. 86–135. [CrossRef]

Review

Mindful Parenting and Parent Technology Use: Examining the Intersections and Outlining Future Research Directions

Melissa A. Lippold, Brandon T. McDaniel and Todd M. Jensen

1   School of Social Work, The University of North Carolina at Chapel Hill, Chapel Hill, NC 27599, USA;
    jensen@unc.edu
2   Health Services and Informatics Research, Parkview Mirro Center for Research and Innovation,
    Fort Wayne, IN 46845, USA; brandon.mcdaniel@parkview.com
*   Correspondence: mlippold@unc.edu

Abstract: Popular media attention and scientific research in both mindful parenting and technology use in the context of parenting has expanded in the 21st century; however, these two streams of research have largely evolved separately from one another. Thus, in this conceptual paper, we integrate the research on mindful parenting with that on parents' technology use and parenting to examine how parent technology use may impact or be linked with aspects of mindful parenting. Mindful parenting theory outlines five key components: listening with full attention, self-regulation in the parent–child relationship, emotional awareness of self and child, nonjudgmental acceptance of self and child, and compassion for self and child. Parent technology use, in particular the use of mobile devices, has the potential to impact all five elements of mindful parenting. However, the relationship between mindful parenting and technology is complex, and there can be both positive and negative implications of parent technology use on mindful parenting. On the positive side, technology use might help parents regulate their emotions; access support; and develop more empathy, acceptance, and compassion for themselves and their children. Yet, parent technology use also has the potential to create distractions and disrupt parent–child interactions, which may make it more difficult for parents to listen with full attention, maintain awareness of their own and their child's emotions, and calmly respond to child behaviors with intentionality. Technology use may also create more opportunities for social comparisons and judgement, making it more difficult for parents to accept their children nonjudgmentally and have compassion for their children as they are. Future research is needed to understand the conditions under which technology use can hinder or promote mindful parenting and how interventions can promote mindful parenting skills and a positive uses of technology.

Keywords: mindful parenting; technoference; mindfulness; parenting; technology; smartphone

1. Introduction

The 21st century is distinct in the proliferation of technology in our lives, especially due to the emergence of smartphones that allow individuals to have nearly constant access to information and continuous connection through texting, the internet, and social media. At the same time, and perhaps because of the proliferation of technology, there has been increased interest in mindfulness, and in ways that individuals can "be present" as the world becomes increasingly distracting. The ability of a parent to maintain awareness of the present moment, nonjudgmentally, has implications for how they interact with and respond to their children. Mindful parenting theory outlines five primary components (Duncan et al. 2009): listening with full attention, self-regulation in the parent–child relationship, emotional awareness of self and child, nonjudgmental acceptance of self and child, and compassion for self and child. Mindful parenting has been shown to be related to positive parent and child outcomes, including greater parent well-being, more positive parenting, and reductions in their child externalizing and internalizing problems (for reviews see Lippold and Duncan 2018; Townshend et al. 2016b). Yet, despite its linkages to parent

and child well-being, little is known about predictors of mindful parenting in general and how the technology context, in particular, may help or hinder mindful parenting. On the positive side, parents' technology use can help parents regulate their emotions; access support; and develop more empathy, acceptance, and compassion for themselves and their children (e.g., McDaniel 2020b; Radesky et al. 2016; Torres et al. 2021; Wolfers 2021)—which are all key aspects of mindful parenting. Yet, parents' technology use also has the potential to create distractions and disrupt parent–child interactions (e.g., McDaniel 2019, 2021; McDaniel and Radesky 2018a, 2018b), which may make it more difficult for parents to listen with full attention, maintain awareness of their and their child's emotions, and calmly respond to child behaviors with intentionality. Parents' technology use can also create more opportunities for social comparisons and judgement (e.g., Coyne et al. 2017), making it more difficult for parents to accept their children nonjudgmentally and have compassion for their children as they are.

The goals of this paper are (1) to briefly review the history and theory of mindful parenting, (2) examine how parent technology use may affect elements of mindful parenting, and (3) identify new research directions at the intersection of mindful parenting and parent technology use. Scientific research in both mindful parenting and technology use in the context of parenting has expanded in the 21st century. Yet, these two streams of research have evolved largely separately from one another. Thus, in this conceptual paper, we integrate the research on mindful parenting with that on technology use in the context of parenting to examine how parent technology use may predict mindful parenting. Although neither an exhaustive nor systematic review, we aim to shed light on the potential overlap between these two streams of research and identify new and exciting research directions. Given the small body of research on both mindful parenting and also parent technology use and parenting, no age restrictions were applied to the studies featured in this manuscript. The paper is structured in three parts. We begin by reviewing the history and definition of mindful parenting. Next, we describe the technology context that undergirds modern parenting and review research related to how technology, in particular the use of mobile devices (e.g., smartphones), might predict the five distinct elements of mindful parenting. We end with a discussion of promising future research directions on mindful parenting and technology.

2. Mindful Parenting

2.1. Mindful Parenting History, Definitions, and Theory

Mindfulness in its simplest terms captures an individual's affective and cognitive processes that increase awareness of the present moment. By noticing feelings, thoughts, and physical sensations as they arise in the present moment—and observing them nonjudgmentally (Goldstein 2002; Kabat-Zinn 2003)—mindfulness may help individuals experience more self-awareness and acceptance of themselves and their experiences. Furthermore, individuals often form appraisals and judgments of their experiences with little awareness, which can lead to bias in perceptions of reality. Mindfulness and increased awareness may help individuals more accurately perceive their environment and subsequently respond to their environment intentionally, rather than habitually or automatically (Brown and Ryan 2003; Brown et al. 2007; Duncan et al. 2009). Mindfulness might also help individuals lessen their identification with their thoughts and emotions. For example, individuals practicing mindfulness observe emotions as "just feelings" and thoughts as "just thoughts" without judgment, allowing themselves to notice them but not fully identify with them. Such de-identification and nonjudgmental acceptance can allow for increased comfort with difficult emotions and may also reduce emotional reactivity and make it less likely that individuals will perceive ambiguous experiences with others as hostile (Brown and Ryan 2003; Brown et al. 2007; Duncan et al. 2009; Goldstein 2002; Heppner and Kernis 2007; Kabat-Zinn 2003).

Importantly, the majority of the research on mindfulness focuses on individual mindfulness skills and benefits. That is, studies focus on how a person's change in awareness

and cognitions associated with mindfulness affects their individual well-being. Several studies have found mindfulness to be associated with improved individual physical and psychological health (for reviews see Chiesa and Serretti 2009; Goldberg et al. 2018; Grossman et al. 2004; Howarth et al. 2019; Kabat-Zinn 2003; Keng et al. 2011). Research on mindfulness has evolved to also capture its effects on others. For example, research starting in the late 1990s focused on whether mindfulness has positive implications not only for the person practicing the skills, but also on other individuals in a relationship with that person—in particular for the person's children. If so, how might mindfulness in the context of parenting impact parenting behavior and child outcomes? These questions spurred a new body of research focusing specifically on mindful parenting. Research on mindful parenting has grown in the 21st century, especially since 2009 (Parent and DiMarzio 2021).

John Kabat-Zinn, a pioneer in individual-level mindfulness and stress reduction interventions, and his coauthor, wrote one of the first popular books on mindful parenting in the late 1990′s entitled *Everyday blessings: The inner work of mindful parenting* (Kabat-Zinn and Kabat-Zinn 1997). Kabat-Zinn and Kabat-Zinn (1997) defined mindful parenting as "paying attention to your child and your parenting in a particular way: intentionally, here and now, and nonjudgmentally" (p. 71). They described the important role that mindful parenting may play in nurturing a positive parent–child relationship, especially in helping parents develop compassion and deep empathy for themselves and their children. Such compassion and empathy may help parents engage in more responsive parenting and improve parental well-being.

Duncan et al. (2009) further expanded the theory underlying mindful parenting. In their seminal work, she and her colleagues identified five main elements of mindful parenting: *listening with full attention, self-regulation in the parent–child relationship, emotional awareness of self and child, nonjudgmental acceptance of self and child, and compassion for self and child*. These five aspects of mindful parenting are central components of the Interpersonal Mindful Parenting Scale, which is widely used in research on mindful parenting, and has been adapted and translated for use in several countries including the United States (U.S.), Portugal, Spain, China, Korea, and the Netherlands (Coatsworth et al. 2015; Geurtzen et al. 2015; Kim et al. 2019; Lo et al. 2018; Moreira and Canavarro 2017; Pan et al. 2019).

Although mindful parenting is related to individual dispositional mindfulness (Kabat-Zinn 2003; Parent and DiMarzio 2021), it is theoretically distinct in that it captures intra- and inter-personal processes specific to the parent–child relationship (Duncan et al. 2009). These aspects of mindful parenting reflect parents' own internal states, such as parents' awareness and nonjudgmental acceptance of their own thoughts and emotions about parenting and their child, a parents' ability to regulate these emotions and related parenting behaviors, and parents' compassion towards themselves related to the challenges of parenting. Mindful parenting also encompasses how parents perceive and interact with their children, such as how parents listen to their children, parents' present-centered awareness, and parental nonjudgement and compassion for their children's experiences. Thus, as the theory of mindful parenting specifies, mindful parenting may have benefits for the parent (i.e., increased self-compassion, emotion regulation). Mindful parenting can also have benefits for children, as mindful parenting skills may help parents engage in more responsive parenting practices and have a closer, more authentic parent–child relationship (Bögels et al. 2010; Lippold and Duncan 2018).

The research on mindful parenting has supported many of its conceptual connections and outcomes, although many research questions remain unanswered (Greenberg and Harris 2012; Townshend et al. 2016b). Mindful parenting has been linked to positive parent outcomes, parenting behaviors, and child outcomes (for reviews see Lippold and Duncan 2018; Townshend et al. 2016b). For example, mindful parenting is associated with lower parental anxiety, stress, and self-blame for parenting challenges (Bazzano et al. 2015; Beer et al. 2013; Bögels et al. 2014; Bögels et al. 2008; Coatsworth et al. 2010; Gouveia et al. 2018, 2019; Lippold et al. 2021; Minor et al. 2006; Vieten and Astin 2008) and higher levels of positive parenting strategies, including greater parental involvement, warmth, self-control,

and anger management in parenting interactions (Bögels et al. 2008; Coatsworth et al. 2010; Duncan et al. 2009; Lippold et al. 2015; MacDonald and Hastings 2010; Medeiros et al. 2016; Parent et al. 2016; Turpyn and Chaplin 2016; Singh et al. 2007; Van der Oord et al. 2012; Yang et al. 2021). Mindful parenting has been associated with positive child outcomes including a lower risk for child internalizing and externalizing behaviors (Bögels et al. 2014; Van der Oord et al. 2012; Parent et al. 2016; Singh et al. 2006; Van de Weijer-Bergsma et al. 2012), unhealthy eating behavior (Gouveia et al. 2018, 2019), and child attention difficulties (Bögels et al. 2008; Van de Weijer-Bergsma et al. 2012) as well as greater child emotional regulation (Moreira et al. 2021), life satisfaction, and subjective well-being (Liu et al. 2021; Ljubetić and Ercegovac 2020).

Below, we discuss the theoretical elements of mindful parenting in more detail and summarize how they can affect parenting behavior and the parent–child relationship. It is critical to first understand these elements before linking them with parent technology use.

Five elements of mindful parenting. Mindful parents *listen with full attention*—that is, they are present-centered, paying attention to what their children are saying in the present moment and providing their children their undivided attention during interactions. According to mindful parenting theory (Duncan et al. 2009; Bögels et al. 2010; Townshend 2016a), such present-centered awareness may allow mindful parents to be more aware of their children's needs and to correctly perceive and interpret their children's behavior and communication. Importantly, mindful parents might be more likely to observe current, present-day needs of their child, rather than to rely on assumptions based on interactions in earlier time periods (Bögels et al. 2010; Duncan et al. 2009). Such present-focused, full attention is thought to reduce parents' automatic thoughts and habits, allowing them to respond more effectively to their child's needs and communication in the present moment (Duncan et al. 2009; Lippold and Duncan 2018).

Listening with full attention and present-centered awareness may help parents notice, gain a clearer understanding, and respond to changing children's needs during developmental transitions. For example, during adolescence, there is an increased need for autonomy in adolescents' thoughts, values, and behaviors, as well as an increased desire for independence and privacy (Deci and Ryan 2008) that markedly differs from earlier developmental periods. Assumptions of a child's needs and desires based on earlier developmental periods (i.e., pre-adolescence) and a lack of autonomy support may lead to youth feelings of over-control and tensions in the parent–child relationship (Borelli et al. 2015; Grolnick and Pomerantz 2009; Miller et al. 2018). Mindful parenting marked by full, present-centered attention may engender deeper listening and observation by parents, and subsequently, parents may gain a clearer understanding of current autonomy needs during adolescence, thereby promoting more effective parenting and a closer parent–child relationship (Lippold and Duncan 2018; Lippold et al. 2015).

Second, mindful parents are *aware of their own emotions* and those of their child and further, they are better able to *self-regulate in the parent–child relationship* (Bögels et al. 2010; Duncan et al. 2009; Townshend 2016a). Mindful parents may be more likely to notice their own emotions when interacting with their children, and they also may be more likely to notice their child's emotional states. Such emotional awareness can allow parents to be more attuned to their children and to more effectively read and interpret child emotional cues (Havighurst et al. 2013). Mindful parents may also be less dismissive of their child's emotional states. Emotional awareness may also help parents observe their own emotional reactions to child behaviors as well as underlying automatic thoughts they may have about their children connected to these emotions. Because they have increased emotional awareness, parents may be able to avoid emotionally driven, habitual, automatic responses to children's behavior. This interruption of automatic responses may allow parents to better regulate their behaviors and to pause and respond more calmly and intentionally to child behavior. Thus, parents who are mindful may be better able to calmly react to behavior and less likely to respond based on strong negative emotions (Bögels et al. 2010; Duncan et al. 2009; Lippold and Duncan 2018; Townshend 2016a).

For example, parents of children who have behavioral challenges may engage in negative, hostile emotional cycles with their children (Bögels et al. 2010; Dumas 2005; Patterson et al. 1989). In these situations, when faced with difficult child behavior, parents may struggle to regulate their own emotions, and may emotionally react to negative child behavior out of anger, stress, or hurt. Mindful parenting might help parents notice their own emotions, which in turn, can help parents calm down when faced with challenging child behavior and more intentionally select their parenting response. In addition, by increasing emotional and present-centered awareness, mindful parenting may help parents identify the child emotions that likely underlie a child's behavior, such as anxiety, sadness, or anger (Havighurst et al. 2013). Parents' awareness of their child's underlying emotions may engender more empathy for what their children are experiencing and promote compassion and empathic understanding. Mindful parenting might also help parents better identify positive traits and attributes present in their children (Duncan et al. 2009; Lippold and Duncan 2018).

Lastly, mindful parents exhibit *nonjudgmental acceptance of both themselves and their child* and have *compassion for themselves and their children* (Duncan et al. 2009; Townshend 2016a). Mindful parents are aware of their own expectations for their children and attributes they wish their children to have. Instead of relying on their own perceptions of who they wish their child to be, mindful parents strive to accept the traits, attributes, and behaviors of their child without judgement. Importantly, as outlined in theoretical work by Duncan et al. (2009), such nonjudgment does not mean parents do not enact discipline or provide guidance to children as needed, yet such guidance is rooted in a deeper acceptance of the child. Nonjudgmental acceptance also applies to parents themselves, as mindful parents nonjudgmentally accept their own traits and attributes as parents, rather than relying on preconceived notions and expectations for themselves.

Relatedly, mindful parenting also includes compassion for the self and child. Compassion allows parents to understand that all humans face struggles and to frame the struggles of themselves and their children as part of a common human experience (Duncan et al. 2009; Neff et al. 2007; Neff 2011). By doing so, parents are less likely to judge themselves and their children negatively and critically, and more likely to show understanding, forgiveness, and genuine empathy towards themselves and their children. Such understanding and empathy may allow parents to provide more comfort when the child is upset and to interact less harshly with their children. Compassion might also allow parents to feel more efficacious in their parenting role, as they may be more likely to frame their parenting struggles as normative (Lippold et al. 2021). Mindful parents' compassion and nonjudgmental acceptance may help parents hold more realistic expectations for their children, improve parent and child well-being (Neff 2011), and facilitate a closer, more authentic parent–child relationship (Duncan et al. 2009; Lippold and Duncan 2018; Townshend 2016a).

2.2. Contextual Predictors of Mindful Parenting

According to Bronfenbrenner's seminal bioecological theory (Bronfrenbrenner and Morris 1998), the environmental context, such as the technology context, plays a key role in a parents' ability to mindfully parent. Yet, prior studies have placed little attention on the individual and contextual predictors of *mindful parenting* specifically. The few studies that examine predictors of mindful parenting are limited in their focus on parent emotional states (i.e., anxiety, depression, self-critical rumination; Henrichs et al. 2019; Moreira et al. 2018), parental cognitions (i.e., parental competence; Lippold et al. 2021), dispositional mindfulness (Moreira and Canavarro 2018; Gouveia et al. 2016), or adolescent characteristics such as adolescent internalizing and externalizing problems (Kim and Gonzales 2021). No prior studies have examined the role of technology as a predictor of *mindful parenting*. Yet, technology is a key contextual influence in the 21st century.

3. Mindful Parenting in the Technology Context

Technology use in general, and mobile-device use in particular, may play a key role in whether or not a parent is able to mindfully parent. In this section, we discuss technology use as a fixture of the 21st century context, outlining how it has changed, with a particular emphasis on mobile devices. We also outline how technology may predict the five elements of mindful parenting (see Table 1).

Table 1. Negative and Positive Linkages Between Technology Use and Mindful Parenting.

Elements of Mindful Parenting	Negative Implications of Technology Use through Mobile Devices	Positive Implications of Technology Use through Mobile Devices
Listening with full attention	- Device use can create distractions from parenting - Multitasking/split attention - Less responsive parenting - Recurring thoughts of/pull toward device use during time with child	Unknown
Emotional awareness of self and child	- Difficulty noticing and responding to children's emotions when distracted by device use	- Mobile interventions may help increase awareness of self and child emotions
Self-regulation in the parent-child relationship	- Phone use sometimes tied to reactive, harsh parenting - Passive/problematic device use tied to more parental depression, lower satisfaction, and lower feelings of competence—which may make it more difficult to self-regulate	- Phone use may help parents regulate their emotions and calm down - Device use may help parents stop from overreacting during stressful parenting moments - Social support via device may help with regulation
Nonjudgmental acceptance of self and child	- Social media use via the device may lead to social comparisons and unrealistic expectations of self and child - May be harder for parents to accept their children nonjudgmentally	- More knowledge about the struggles parents and children face may make parents more accepting and reduce judgement of self and child
Compassion for self and child	- Upward social comparisons on social media may lead to less compassion for self and child	- Connecting with others via the device may help parents understand all parents and children may face struggles - Social media may help with the development of empathy

3.1. Parent Technology Use in the 21st Century

The landscape of technology use among families in the 21st century no longer simply includes the family television, computer, and landline phone. For many families, there is now a plethora of family, parent, and child devices in the home (Pew Research Center 2017), such as TVs in various rooms such as bedrooms, smartphones, tablets, smart home speakers and screens, laptops, and more. In other words, much of our technology is now mobile, and many individuals express keeping their mobile devices (such as smartphones) with them for much of the day (Rainie and Zickuhr 2015). As of February 2021, 85% of

U.S. adults owned a smartphone, and if we look at those in the childbearing years (ages 18 to 49), 100% had a cellphone and 95% had a smartphone (Pew Research Center 2021). This is up from 35% of U.S. adults owning a smartphone in May 2011. In about the same time period, those who own a tablet has grown from 3% in May 2010 to 53% in February 2021. Recent objective smartphone usage data suggests that parents, on average, utilize their smartphone for almost four hours per day (ranging from 0.64 to 14.36 h per day) and pick up and check their device on average 67 times per day (ranging from 24 to 246 times per day; Yuan et al. 2019). The prevalence of smartphones and the ways in which these devices are embedded in individuals' lives and routines are distinct to the 21st century and, for this reason, are the primary focus of this article.

Mobile devices and associated technology can have important implications for parenting. Parents have expressed using their mobile devices during parenting and the time they spend with their child (McDaniel and Coyne 2016; McDaniel and Radesky 2018a, 2018b), and these devices can be used by parents for a variety of purposes throughout the day, such as to seek parenting information, to connect with others or seek support, to relieve stress or boredom, and much more (Radesky et al. 2016; Torres et al. 2021; Wolfers 2021). Therefore, device use has the potential to influence parent well-being, their emotional state, and the quality of parenting in both positive and negative ways (e.g., Abels et al. 2018; Davidovitch et al. 2018; Hiniker et al. 2015; Kellershohn et al. 2018; McDaniel 2021; Radesky et al. 2014, 2015, 2016; Reed et al. 2017; Torres et al. 2021).

Additionally, although parents have always experienced or engaged with distractors during parenting (e.g., TV use, getting a phone call on the landline, reading the newspaper, cleaning the house), the current technology landscape is unique in that "this is the first time in the history of humanity where we have devices that are connected to almost all parts of our lives and identities and that travel with us (often in our pocket or hand) everywhere we go, from private to public spaces and from individual time to family time" (McDaniel 2019). For instance, many parents express a growing attachment to their devices, with some going as far as to say they could not live without their phone (Smith 2015) or expressing anxiety if they have to disconnect or put away their device (e.g., Cheever et al. 2014; Clayton et al. 2015; King et al. 2013). Some parents also state that they spend too much time on their smartphone (Jiang 2018), and some research shows that our attention may at times be more absorbed by our mobile devices as compared with other sorts of distractors (e.g., Abels et al. 2018; Hiniker et al. 2015). This may be due to the affordances offered by the device, which can at times deeply connect to human needs such as the need for connection, fear of missing out, etc. (e.g., Przybylski et al. 2013; Sbarra et al. 2019), but is also likely due to the persuasive design features which are incorporated into mobile devices as well as their apps (Eyal 2014). Sometimes, these mobile devices and apps have been designed with the intent to keep our attention or draw us back to more use with notifications and so forth. Additionally, addiction-like tendencies, or at least strong habits and problematic use, may at times form with smartphones and Internet use (Kwon et al. 2013; Panova and Carbonell 2018). Addiction is not necessary for impacts on parenting to be felt though, as the everyday beeps, buzzes, and notifications of a smartphone—that are often present across the entire day—can easily and unintentionally draw the attention of the parent and interrupt parenting in small ways throughout the day (McDaniel and Coyne 2016; McDaniel 2019), especially if the parent is not being mindful of their use.

Indeed, parent technology use may be an important determinant of mindful parenting with implications for all five elements, including a parents' ability to listen with full attention; self-regulate their emotions and behaviors; and demonstrate emotional awareness, nonjudgmental acceptance, and compassion of self and child. Yet, although no prior studies have specifically examined technology as a predictor of mindful parenting as assessed by the Interpersonal Mindful Parenting Scale, research on technology and parenting sheds light on some potential associations.

3.2. Theory on Technology Use and Mindful Parenting

Belsky's theoretical work on the determinants of parenting (1984) suggests that contextual factors, such as technology, may impact parents' internal resources (e.g., psychological resources) and external resources (e.g., environmental stress and support). Technology may affect parents' internal psychological resources such as their attention, awareness, and psychological well-being; and parents with fewer psychological resources might find it more challenging to mindfully parent. In addition, technology use may affect parents' external resources by facilitating connections with others via social media or other internet sites. Technology may both enhance or deplete parents' resources. Thus, on the one hand, technology use through mobile devices might help parents improve their internal and external resources (Belsky 1984) by helping them regulate their emotions, obtain support, and gain information that may help them develop acceptance and compassion for self and child (e.g., McDaniel 2020b; Radesky et al. 2016; Torres et al. 2021; Wolfers 2021). On the other hand, technology use through mobile devices might deplete parents' resources by creating distractions, limiting attention, and might create stress due to increased levels of social comparison, making it harder to maintain nonjudgement and compassion (e.g., Coyne et al. 2017; McDaniel 2019, 2021; McDaniel and Radesky 2018b). Thus, technology use has the potential to both help and hinder mindful parenting, with positive and negative implications for parents and their children. Below, we discuss how the use of mobile devices may help and/or hinder each of the five elements of mindful parenting.

3.3. Listening with Full Attention

Distractions from device use—often referred to as "technoference" (McDaniel and Coyne 2016; McDaniel and Radesky 2018a)—might reduce parents' internal resources by inhibiting a parents' ability to maintain awareness of the present moment and listen to their child with full attention. The research is clear on parent device-use during parent–child interactions or time spent with their child. When the device is used during parent–child time, parents are at least partially distracted, the resulting quality of that interaction is often lower, and child cues and bids for attention are sometimes missed (McDaniel 2019). For example, in a recent experiment, researchers found that when mothers used smartphones during mother-child play they responded to their child less frequently than when they are not on a smartphone; they also engaged in fewer verbalizations and less instructing behaviors (Konrad et al. 2021). Other studies have also shown that infants of parents who are more absorbed in media are less likely to be securely attached (Linder et al. 2021), perhaps because parents on devices have been found to resemble a "still face" with moments of little emotional responsiveness to child cues (Myruski et al. 2018; Stockdale et al. 2020). Some parents express that device-use can make them miss parenting moments and not be as sensitive or responsive to their child (McDaniel 2020b). Indeed, in interviews, parents have expressed finding it difficult to multitask between their phone and their child (Radesky et al. 2016). In other words, device-use can cause a parent's attention to be divided between the device and the child instead of giving their full attention to their child. If this divided attention occurs occasionally, this is less worrisome than if the parents' attention is often absorbed by the device during parent–child time. Research with children and adolescents suggests that adolescents feel more negatively toward interactions they have with their parent when their parent uses a phone, at times even perceiving the parent to be less warm and loving (Kushlev and Dunn 2019; Steiner-Adair and Barker 2013; Stockdale et al. 2018). Thus, parent device use during parent–child time may present a challenge to listening with full attention, making it more likely that a parent would not be as aware of or able to utilize all aspects of the interaction (e.g., tone of voice, facial expression, body language) to mindfully engage with their child and notice and meet their child's current needs. Because they are less present-centered, technology distractions may make parents more likely to rely on past behavior or preconceived ideas about their children.

3.4. Emotional Awareness of Self and Child

Not only can device-use during parenting impact parents' ability to listen with full attention, but it also has the potential to affect the awareness parents have regarding their own and their child's emotions. From one perspective, distraction by mobile-phone use may reduce parents' internal cognitive resources and make it more difficult for them to maintain emotional awareness. No research has specifically examined whether parents are less likely to engage in good parenting practices surrounding their child's emotions (e.g., talking about feelings, labeling emotions, validation) specifically in moments they are using a device versus times when they are not using a device. However, a recent study found that mothers' use of mobile devices during a structured eating task was associated with lower levels of caretaker sensitivity, including reductions in a caregiver's ability to recognize and respond to the child's emotional (and physical) needs and experiences (Konrad et al. 2021; Radesky et al. 2018). Social media use and high media absorption has also been associated with more neglectful parenting approaches (e.g., low levels of responsiveness and involvement) as well as less secure attachment in infants, suggesting that it might also impede a parent's ability to be emotionally aware and responsive to their children (Linder et al. 2021; Richter 2018).

From a different perspective, there is the potential for technology to be used as part of parenting programs or interventions to positively impact parents and their emotional awareness. McIsaac (2021) had fathers use their phones to take photos of their child. Then, fathers captioned the photos as if in the child's voice, and results suggested that this intervention assisted fathers with empathy and emotional understanding regarding their child. Although this intervention did not assess mindful parenting per se, its use of a digital device as a means for parent reflection and empathy shows potential for technology to assist parents in heightening their awareness of their child's experiences and emotions. Mobile interventions for mental health services also have the potential to increase the emotional awareness of parents (Donker et al. 2013). Thus, technology has the potential to influence parents' emotional awareness of self and the child in both negative and positive ways.

3.5. Self-Regulation in the Parent-Child Relationship

Device use may have mixed impacts on a parent's ability to mindfully self-regulate. On the one hand, device use may help parents improve regulation. For instance, parents express turning to device use when they are feeling down, stressed, and bored (Radesky et al. 2016; Torres et al. 2021; Wolfers 2021)—which, in a sense, indicates its use for the regulation of their emotions. When parents turn to device use during stressful parenting moments, some express that it helps them to calm down so that they do not overreact or yell at their child as well as to see the positives in their child and parenting again (McDaniel 2020b; Torres et al. 2021). Active social media use (e.g., directly connecting with others) may assist the individual (Deters and Mehl 2013; Escobar-Viera et al. 2018) with regulation. Indeed, parents express using their device at times to seek support from others (McDaniel et al. 2012; Radesky et al. 2016; Torres et al. 2021; Wolfers 2021). If used in this way, it is possible that the use could assist the parent with the regulation of their emotions during a stressful parenting situation (McDaniel 2020a)—at least if they receive helpful support from others (Frison and Eggermont 2015).

Yet, there is some evidence that device use may lead to more reactive parenting, making it more difficult for parents to regulate their emotional and behavioral responses to child behavior. As mentioned previously, parental over-absorption in device use or difficulty disconnecting one's thoughts from the device at times leads to distraction and a deterioration in parenting (Konrad et al. 2021; McDaniel 2019, 2021). Some research even suggests that parents can at times struggle with responding more harshly to their child when the parent is on a device (Radesky et al. 2014), likely due to the stretching of their cognitive resources and feelings of being torn from the task they may have been engaged in on their device (e.g., work-related task, reading or composing an email or text message). McDaniel (2021) found that parents who express more difficulty with thinking

about and staying away from device use during parent–child time are also more likely to show overreactive parenting. Furthermore, passive social media use (e.g., scrolling with no real purpose or direct interaction with others) and avoidance of stress via device use has sometimes been linked to experiencing greater depressive symptoms, lower life satisfaction, and less parental competence (Escobar-Viera et al. 2018; Van Ingen et al. 2016; Verduyn et al. 2015, 2017)—thus, passive use may make it more difficult for parents to regulate their emotions and behaviors. Furthermore, while on the device (regardless of type of use), parents might be exposed to social comparisons, negative information, or a lack of response or negative responses to their social media posts or pleas, all of which can lead to further negative emotions (Coyne et al. 2017; Moujaes and Verrier 2021; Sidani et al. 2020; Strange et al. 2018). Clearly, device use can be a double-edged sword when it comes to the self-regulation element of mindful parenting.

3.6. Nonjudgmental Acceptance of and Compassion for Self and Child

Device use does not always influence the judgments parents make about themselves and their child. However, there are times that it can. Exposure to other parents' posts on social media may lead to comparisons between themselves and their child with what is posted by other parents on social media. These social comparisons may lead them to feel worse about themselves, their parenting, or their child, as they are not measuring up to the happy lives they see online or that other parents are posting (Coyne et al. 2017; Damkjaer 2018; Moujaes and Verrier 2021; Sidani et al. 2020; Strange et al. 2018). In other words, their device use can influence the attributions, expectations, and subconscious judgments they have concerning their child. These expectations, especially if made through comparison to others, might inhibit nonjudgmental acceptance of the self and child.

On the contrary, if parents use the internet to gain information about their child or an experience their child is having, parents may become more understanding and accepting of their child (Moon et al. 2019). Additionally, if parents are part of accepting, nonjudgmental, and supportive groups or sites online, parents can feel supported, understood, empowered, and perhaps more accepting of themselves and their child (Amaro et al. 2019; Coyne et al. 2022; Damkjaer 2018). Connecting with others via internet groups may also help parents realize that all parents and children experience struggles. Such social connections via their devices may help parents to develop compassion and empathy towards themselves and their children, as they realize they are part of a broader human experience (Neff 2003). Although studies have not specifically examined whether device use affects parents' empathy and compassion, studies on adolescents have found some evidence that social media use can be associated with greater affective empathy (sharing feelings with others) and, to a lesser extent, cognitive empathy (understanding others; Guan et al. 2019; Errasti et al. 2017; Frison and Eggermont 2015; Alloway et al. 2014; Vossen and Valkenburg 2016). A recent study found that mothers who use social media during breastfeeding report that it helps them to connect with others and cope with difficulties in feeding (Coyne et al. 2022). Additionally, talking with a friend, family member, or therapist via technology (e.g., text, phone call, video call) could help the parent to become more compassionate and forgiving of themselves.

4. Conclusions and Future Directions for Exploring the Intersection of Mindful Parenting and Technology

As family researchers continue their work in the 21st century, it is critical to examine how emergent technological contexts might intersect with and shape parenting. Interestingly, as technology has become more embedded in our lives, there has been growing interest in understanding how it impacts ourselves, our relationships, and our parenting. In parallel, perhaps related to this increase in technology and mobile-device use, there has been a surge of interest in mindfulness and in mindful parenting. Although neither a systematic nor exhaustive review, this conceptual paper examined how technology might impact mindful parenting. Given the distractions and pressures technology use can produce, how can

parents stay fully engaged and attentive in the present moment with their children? With a world full of stimulation, how can we use tenants of mindful parenting—increased awareness of thoughts and feelings, compassion, self-regulation in the parent-child relationship, nonjudgmental acceptance—to consciously and intentionally parent?

Mindful parenting research has yielded growing evidence of promoting parent and child well-being. The extent to which parents are able to listen with full attention, self-regulate, and demonstrate emotional awareness, nonjudgmental acceptance, and compassion of self and child, the more likely parents and their children will experience well-being (Duncan et al. 2009; Lippold and Duncan 2018; Townshend 2016a; Townshend et al. 2016b). Yet, mobile-device use has the potential to both inhibit and help parents engage in mindful parenting. On the one hand, device use may deplete parents' psychological resources (Belsky 1984), create distractions, reduce responsiveness, and reduce parental awareness of emotions, acceptance, and compassion (e.g., Coyne et al. 2017; McDaniel 2019, 2021; McDaniel and Radesky 2018b; Myruski et al. 2018; Stockdale et al. 2020). On the other hand, device use has the potential to help parents self-regulate their emotions and to connect with others who might help them develop empathy and compassion and realize that all parents and children face challenges (e.g., McDaniel 2020b; Radesky et al. 2016; Torres et al. 2021; Wolfers 2021). Thus, technology use has the potential to operate as both a positive and negative force with respect to mindful parenting—at times, technology use might even exert both types of forces simultaneously.

Moving forward, more studies are needed to understand the complex relationships between technology and mindful parenting and identify the conditions under which it promotes or hinders mindful parenting. Such investigation would be aided through the use of daily and momentary assessments that can examine how technology use affects parent emotions, cognitions, and awareness (i.e., mindful parenting) "in the moment". Whereas studies reviewed here suggest that technology use may positively or negatively affect many aspects of mindful parenting, extant studies do not have the fine-grained measures needed to assess the underlying cognitive and affective processes central to theories undergirding mindful parenting. For example, theory on mindful parenting suggests that regulation may help parents pause, interrupt automatic thoughts and cognitions, and respond intentionally to child behavior (Duncan et al. 2009). Studies that integrate technology use, behaviors indicative of mindful parenting, and underlying affective and cognitive processes would enhance our understanding of how technology use and mindful parenting may affect one another. Importantly, the relationship between technology use and mindful parenting is likely bidirectional and dynamic and it may differ developmentally based on the age of the child.

Additional studies are needed to identify specific smartphone uses and their relationships with mindful parenting. For example, parents use their smartphone for many things, such as to gather information, to socially connect, and to search for information, among other uses. Which of these uses promotes mindful parenting? How? In what contexts does it do so and in what contexts does it hinder mindful parenting? For example, night-time device use may lead to more exhaustion and reduce parent cognitive and psychological resources, making it more difficult to mindfully parent the next day (McDaniel et al. 2021), whereas device use during specific times, such as during infant feeding, may have positive benefits for parenting at other times throughout the day (Coyne et al. 2022). Studies that examine the specific uses and contexts of device use will help the field identify ways that technology use may be positive, and also identify when technology use may hinder one's ability to engage in mindful parenting. This knowledge is critical for developing interventions that teach parents the most effective ways to utilize technology in a positive way, as well as understanding the ways that interventions can help parents interrupt negative technology use. Such studies would also provide guidance to parents about when and how to best use technology that enhances, rather than detracts from, mindful parenting.

Additionally, technology may create platforms and opportunities for parents to learn mindful parenting. Are there ways that mobile devices can help parents become more

self-aware, present, and mindful in their parenting? Can mobile device applications and interventions help parents gain skills and provide parents guidance to enhance mindful parenting? Technology use has the potential to help parents in the moment become more aware of their thoughts and emotions. Perhaps technology can even be used to cultivate key aspects of mindful parenting, such as increasing regulation and present-centered awareness of self and child as well as compassion and acceptance. Interventions may also assist parents in becoming more aware of when and how they are using their smartphones, and to more consciously and intentionally use technology to assist them in parenting. Although numerous mindful parenting apps are available, it is unclear how many of them are based in research on mindful parenting. For example, studies have found that many commercial individual mindfulness apps do not include training and education in mindfulness, few are evidence-based, and little is known about their effectiveness (Mani et al. 2015; Schultchen et al. 2020). Studies are needed that more closely examine existing mindful parenting apps, that study how they map onto mindful parenting research and whether they have demonstrable impacts on parent and child well-being. Adapting existing mindful parenting interventions to real-time interventions or creating new in-the-moment mindful parenting interventions have the potential to expand mindful parenting skills, with positive implications for parents and their children.

Furthermore, prior studies on technology use and mindful parenting have been limited in their focus on parenting and the parents' experiences. Yet, parents are in dynamic relationships with their children, and transactional processes are at play (Sameroff 2010). For example, parents may withdraw into their own device use and have their children use devices more often when parents are stressed (McDaniel and Radesky 2018b, 2020; Nabi and Krcmar 2016; Nikken and Schols 2015; Pempek and McDaniel 2016), negative child behavior can lead to parenting stress (McDaniel and Radesky 2020), and greater device use by children and by parents can sometimes lead to worse child behavior and greater conflict and parenting stress over time (Beyens and Beullens 2017; Domoff et al. 2019; Matthes et al. 2021; McDaniel and Radesky 2018b, 2020). It is likely a complex bidirectional and transactional process. Children themselves, especially adolescents, also engage with their own devices (e.g., Jiang 2018; Matthes et al. 2021; Stockdale et al. 2018). For example, a recent report indicated that 54% of teens feel they spend too much time on their smartphones (Jiang 2018). Children's device use can also impact parent and child feelings and experiences in the moment (e.g., Hiniker et al. 2016; Jiang 2018; Stockdale et al. 2018). More studies are needed that integrate the child's experiences into the intersection of technology use and mindful parenting.

4.1. Implications for Parenting in the 21st Century

Growing evidence suggests that mindful parenting can have positive benefits for children and parents. Yet, how can parents engage more mindfully with their children in the presence of increased technological distractions? Although the research in this area is still evolving, existing studies offer guidance. First, it may be important to create periods of time away from mobile devices, where parents can engage with their child with fewer distractions. Even small amounts of time away from phones may help parents listen with full attention and more mindfully connect with their children. Time away from phones may allow parents to develop a greater awareness of their child's experiences and to engender deeper empathy, understanding and compassion. Second, when parents are using their phone, it may be helpful to periodically pause to assess why they are using their phone and whether phone use is enhancing or detracting from their well-being and ability to mindfully parent. As reviewed, mobile device use can have both positive and negative effects on mindful parenting. Increased parental awareness may help parents identify times when technology is beneficial versus times it might hinder effective parenting. For example, parental awareness can help parents notice when phone use helps them calm down and feel less stressed versus times when it increases frustration, guilt, and stress. Similarly, awareness can help parents discern when phone use helps them to obtain social support and

connection versus times when it leads to more social comparisons and reduces feelings of competence. Parents' own awareness is an important step in knowing when—and how—to use their phone to improve their well-being and engage in more mindful parenting.

4.2. Conclusions

As we consider the unique processes of parenting in the 21st century, the study of both mindful parenting and technology use are relatively new developments. Studies have shown that technology has the potential to both enhance and hinder mindful parenting. On the positive side, parent technology use may help parents gain empathy and develop compassion for themselves and their child, regulate their emotions, and connect to supportive individuals via social media and other internet sites. On the negative side, parent technology use may create distractions that make it challenging to be present-centered, listen with full attention, and calmly and intentionally respond to child behavior. Furthermore, technology use can lead to social comparisons that can inhibit compassion and acceptance. Studies that expand on both of these areas separately—and that examine their overlap—have the potential to increase our knowledge about how to effectively parent and promote child well-being in an increasingly technology filled world. By doing so, we can build interventions and strategies to help parents use technology in ways that may make them more mindful parents.

References

Abels, Monika, Mariek Vanden Abeele, Toke Van Telgen, and Helma Van Meijl. 2018. Nod, nod, ignore: An exploratory observational study on the relation between parental mobile media use and parental responsiveness towards young children. In *The Talking Species: Perspectives on the Evolutionary, Neuronal, and Cultural Foundations of Language*. Edited by Eva M. Luef and Manuela M. Marin. Graz: Uni-Press Verlag, pp. 195–228.

Alloway, Tracy, Rachel Runac, Mueez Quershi, and George Kemp. 2014. Is Facebook linked to selfishness? Investigating the relationships among social media use, empathy, and narcissism. *Social Networking* 3: 150–58. [CrossRef]

Amaro, Lauren M., Nataria T. Joseph, and Theresa M. de los Santos. 2019. Relationships of online social comparison and parenting satisfaction among new mothers: The mediating roles of belonging and emotion. *Journal of Family Communication* 19: 144–56. [CrossRef]

Bazzano, Alicia, Christiane Wolfe, Lidia Zylowska, Steven Wang, Erica Schuster, Christopher Barrett, and Danise Lehrer. 2015. Mindfulness based stress reduction (MBSR) for parents and caregivers of individuals with developmental disabilities: A community-based approach. *Journal of Child and Family Studies* 24: 298–308. [CrossRef]

Beer, Michelle, Lynn Ward, and Kathryn Moar. 2013. The relationship between mindful parenting and distress in parents of children with an Autism Spectrum Disorder. *Mindfulness* 4: 102–12. [CrossRef]

Belsky, Jay. 1984. The determinants of parenting: A process model. *Child Development* 55: 83–96. [CrossRef] [PubMed]

Beyens, Ine, and Kathleen Beullens. 2017. Parent–child conflict about children's tablet use: The role of parental mediation. *New Media and Society* 19: 2075–93. [CrossRef]

Bögels, S., J. Hellemans, S. van Deursen, M. Romer, and R. van der Meulen. 2014. Mindful parenting in mental health: Effects on parental and child psychopathology, parental stress, parenting, coparenting, and marital functioning. *Mindfulness* 5: 536–51. [CrossRef]

Bögels, Susan M., Annukka Lehtonen, and Kathleen Restifo. 2010. Mindful parenting in mental health care. *Mindfulness* 1: 107–20. [CrossRef]

Bögels, Susan, Bert Hoogstad, Lieke van Dun, Sarah de Schutter, and Kathleen Restifo. 2008. Mindfulness training for adolescents with externalizing disorders and their parents. *Behavioural and Cognitive Psychotherapy* 36: 193–209. [CrossRef]

Borelli, Jessica L., Gayla Margolin, and Hannah F. Rasmussen. 2015. Parental overcontrol as a mechanism explaining the longitudinal association between parent and child anxiety. *Journal of Child and Family Studies* 24: 1559–74. [CrossRef]

Bronfrenbrenner, Urie, and Pamela. A. Morris. 1998. The ecology of developmental processes. In *Handbook of Child Psychology: Theoretical Models of Human Development*, 5th ed. Edited by Damon William and Richard Lerner. New York: John Wiley, vol. 1, pp. 993–1028.

Brown, Kirk Warren, and Richard M. Ryan. 2003. The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology* 84: 822–48. [CrossRef]

Brown, Kirk Warren, Richard M. Ryan, and J. David Creswell. 2007. Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry* 18: 211–37. [CrossRef]

Cheever, Nancy A., Larry D. Rosen, L. Mark Carrier, and Amber Chavez. 2014. Out of sight is not out of mind: The impact of restricting wireless mobile device use on anxiety levels among low, moderate and high users. *Computers in Human Behavior* 37: 290–97. [CrossRef]

Chiesa, Alberto, and Alessandro Serretti. 2009. Mindfulness-based stress reduction for stress management in healthy people: A review and meta-analysis. *The Journal of Alternative and Complementary Medicine* 15: 593–600. [CrossRef] [PubMed]

Clayton, Russell B., Glenn Leshner, and Anthony Almond. 2015. The extended iSelf: The impact of iPhone separation on cognition, emotion, and physiology. *Journal of Computer-Mediated Communication* 20: 119–35. [CrossRef]

Coatsworth, J. Douglas, Larissa G. Duncan, Mark T. Greenberg, and Robert L. Nix. 2010. Changing parent's mindfulness, child management skills and relationship quality with their youth: Results from a randomized pilot intervention trial. *Journal of Child and Family Studies* 19: 203–17. [CrossRef]

Coatsworth, J. Douglas, Larissa G. Duncan, Robert L. Nix, Mark T. Greenberg, Jochebed G. Gayles, Katharine T. Bamberger, Elaine Berrena, and Mary Ann Demi. 2015. Integrating mindfulness with parent training: Effects of the mindfulness-enhanced strengthening families program. *Developmental Psychology* 51: 26–35. [CrossRef]

Coyne, Sarah M., Brandon T. McDaniel, and Laura A. Stockdale. 2017. "Do you dare to compare?" Associations between maternal social comparisons on social networking sites and parenting, mental health, and romantic relationship outcomes. *Computers in Human Behavior* 70: 335–40. [CrossRef]

Coyne, Sarah M., Jane Shawcroft, Megan Gale, Stephanie M. Reich, Lisa Linder, Brandon McDaniel, Laura Stockdale, and McCall Booth. 2022. Digital distraction or accessible aid? Parental media use during feedings and parent-infant attachment, dysfunction, and relationship quality. *Computers in Human Behavior* 127: 107051. [CrossRef]

Damkjaer, Maja Sonne. 2018. Sharenting = Good parenting? Four parental approaches to sharenting on Facebook. In *Digital Parenting, the Challenges for Families in the Digital Age*. Edited by Giovanna Mascheroni, Cristina Ponte and Ana Jorge. Göteborg: Nordicom, pp. 209–18.

Davidovitch, Michael, Maayan Shrem, Nitzan Golovaty, Nurit Assaf, and Gideon Koren. 2018. The role of cellular phone usage by parents in the increase in ASD occurrence: A hypothetical framework. *Medical Hypotheses* 117: 33–36. [CrossRef]

Deci, Edward L., and Richard M. Ryan. 2008. Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology/Psychologie Canadienne* 49: 182. [CrossRef]

Deters, Fenne Große, and Matthias R. Mehl. 2013. Does posting Facebook status updates increase or decrease loneliness? An online social networking experiment. *Social Psychological and Personality Science* 4: 579–86. [CrossRef] [PubMed]

Domoff, Sarah E., Kristen Harrison, Ashley N. Gearhardt, Douglas A. Gentile, Julie C. Lumeng, and Alison L. Miller. 2019. Development and validation of the Problematic Media Use Measure: A parent report measure of screen media "addiction" in children. *Psychology of Popular Media Culture* 8: 2. [CrossRef]

Donker, Tara, Katherine Petrie, Judy Proudfoot, Janine Clarke, Mary-Rose Birch, and Helen Christensen. 2013. Smartphones for smarter delivery of mental health programs: A systematic review. *Journal of Medical Internet Research* 15: e2791. [CrossRef] [PubMed]

Dumas, Jean E. 2005. Mindfulness-based parent training: Strategies to lessen the grip of automaticity in families with disruptive children. *Journal of Clinical Child and Adolescent Psychology* 34: 779–91. [CrossRef] [PubMed]

Duncan, Larissa G., J. Douglas Coatsworth, and Mark T. Greenberg. 2009. A model of mindful parenting: Implications for parent–child relationships and prevention research. *Clinical Child and Family Psychology Review* 12: 255–70. [CrossRef] [PubMed]

Errasti, Jose, Isaac Amigo, and Manuel Villadangos. 2017. Emotional uses of Facebook and Twitter: Its relation with empathy, narcissism, and self-esteem in adolescence. *Psychological Reports* 120: 997–1018. [CrossRef]

Escobar-Viera, César G., Ariel Shensa, Nicholas D. Bowman, Jaime E. Sidani, Jennifer Knight, A. Everette James, and Brian A. Primack. 2018. Passive and active social media use and depressive symptoms among United States adults. *Cyberpsychology, Behavior, and Social Networking* 21: 437–43. [CrossRef]

Eyal, Nir. 2014. *Hooked: How to Build Habit-Forming Products*. New York: Penguin Random House.

Frison, Eline, and Steven Eggermont. 2015. The impact of daily stress on adolescents' depressed mood: The role of social support seeking through Facebook. *Computers in Human Behavior* 44: 315–25. [CrossRef]

Geurtzen, Naline, Ron H. J. Scholte, Rutger C. M. E. Engels, Yuli R. Tak, and Rinka M. P. van Zundert. 2015. Association between mindful parenting and adolescents' internalizing problems: Non-judgmental acceptance of parenting as core element. *Journal of Child and Family Studies* 24: 1117–28. [CrossRef]

Goldberg, Simon B., Raymond P. Tucker, Preston A. Greene, Richard J. Davidson, Bruce E. Wampold, David J. Kearney, and Tracy L. Simpson. 2018. Mindfulness-based interventions for psychiatric disorders: A systematic review and meta-analysis. *Clinical Psychology Review* 59: 52–60. [CrossRef] [PubMed]

Goldstein, Joseph. 2002. *One Dharma: The Emerging Western Buddhism*. San Francisco: Harper San Francisco.

Gouveia, Maria João, Maria Cristina Canavarro, and Helena Moreira. 2016. Self-compassion and dispositional mindfulness are associated with parenting styles and parenting stress: The mediating role of mindful parenting. *Mindfulness* 7: 700–12. [CrossRef]

Gouveia, Maria João, Maria Cristina Canavarro, and Helena Moreira. 2018. Is mindful parenting associated with adolescents' emotional eating? The mediating role of adolescents' self-compassion and body shame. *Frontiers in Psychology* 9: 2004. [CrossRef] [PubMed]

Gouveia, Maria João, Maria Cristina Canavarro, and Helena Moreira. 2019. How can mindful parenting be related to emotional eating and overeating in childhood and adolescence? The mediating role of parenting stress and parental child-feeding practices. *Appetite* 138: 102–14. [CrossRef]

Greenberg, Mark. T., and Alexis R. Harris. 2012. Nurturing mindfulness in children and youth: Current state of research. *Child Development Perspectives* 6: 161–66. [CrossRef]

Grolnick, Wendy S., and Eva. M. Pomerantz. 2009. Issues and challenges in studying parental control: Toward a new conceptualization. *Child Development Perspectives* 3: 165–70. [CrossRef]

Grossman, Paul, Ludger Niemann, Stefan Schmidt, and Harald Walach. 2004. Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research* 57: 35–43. [CrossRef]

Guan, Shu-Sha Angie, Sophia Hain, Jennifer Cabrera, and Andrea Rodarte. 2019. Social media use and empathy: A mini meta-analysis. *Social Networking* 8: 147–57. [CrossRef]

Havighurst, Sophie S., Katherine R. Wilson, Ann E. Harley, Christiane Kehoe, Daryl Efron, and Margot R. Prior. 2013. "Tuning into Kids": Reducing young children's behavior problems using an emotion coaching parenting program. *Child Psychiatry and Human Development* 44: 247–64. [CrossRef]

Henrichs, Jens, Marion I. van den Heuvel, Anke B. Witteveen, Janneke Wilschut, and Bea RH Van den Bergh. 2019. Does mindful parenting mediate the association between maternal anxiety during pregnancy and child behavioral/emotional problems? *Mindfulness* 12: 370–80. [CrossRef]

Heppner, Whitney L., and Michael H. Kernis. 2007. Quiet ego functioning: The complementary roles of mindfulness, authenticity, and secure self-esteem. *Psychological Inquiry: An Internalitonal Journal for the Advancement of Psychological Theory* 18: 248–51. [CrossRef]

Hiniker, Alexis, Kiley Sobel, Hyewon Suh, Yi-Chen Sung, Charlotte P. Lee, and Julie A. Kientz. 2015. Texting while parenting: How adults use mobile phones while caring for children at the playground. Paper presented at the 33rd Annual ACM Conference on Human Factors in Computing Systems, Seoul, Korea, April 18–23; pp. 727–36.

Hiniker, Alexis, Sarita Y. Schoenebeck, and Julie A. Kientz. 2016. Not at the dinner table: Parents' and children's perspectives on family technology rules. Paper presented at the 19th ACM Conference on Computer-Supported Cooperative Work and Social Computing, San Francisco, CA, USA, February 27–March 2; pp. 1376–89.

Howarth, Ana, Jared G. Smith, Linda Perkins-Porras, and Michael Ussher. 2019. Effects of brief mindfulness-based interventions on health-related outcomes: A systematic review. *Mindfulness* 10: 1957–68. [CrossRef]

Jiang, JingJing. 2018. How Teens and Parents Navigate Screen Time and Device Distractions. Pew Research Center. Available online: http://www.pewinternet.org/wp-content/uploads/sites/9/2018/08/PI_2018.08.22_teens-screentime_FINAL.pdf (accessed on 5 October 2021).

Kabat-Zinn, John. 2003. Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice* 10: 144–56. [CrossRef]

Kabat-Zinn, Myla, and John Kabat-Zinn. 1997. *Everyday Blessings: The Inner Work of Mindful Parenting*. New York: Hyperion.

Kellershohn, Julie, Keith Walley, Bettina West, and Frank Vriesekoop. 2018. Young consumers in fast food restaurants: Technology, toys, and family time. *Young Consumers* 19: 105–18. [CrossRef]

Keng, Shian-Ling, Moria J. Smoski, and Clive J. Robins. 2011. Effects of mindfulness on psychological health: A review of empirical studies. *Clinical Psychology Review* 31: 1041–56. [CrossRef]

Kim, Eunjin, Christian U. Krägeloh, Oleg N. Medvedev, Larissa G. Duncan, and Nirbhay N. Singh. 2019. Interpersonal mindfulness in parenting scale: Testing the psychometric properties of a Korean version. *Mindfulness* 10: 516–28. [CrossRef]

Kim, Joanna J., and Nancy A. Gonzales. 2021. Who's Influencing Who? Adolescent symptomatology and caregiver mindful parenting. *Journal of Research on Adolescence* 31: 1172–87. [CrossRef]

King, Anna Lucia Spear, Alexandre-Martins Valenca, Adriana-Cardoso O. Silva, Tathiana Baczynski, Marcele R. Carvalho, and Antonio Egidio Nardi. 2013. Nomophobia: Dependency on virtual environments or social phobia? *Computers in Human Behavior* 29: 140–44. [CrossRef]

Konrad, Carolin, Mona Hillmann, Janine Rispler, Luisa Niehaus, Lina Neuhoff, and Rachel Barr. 2021. Quality of Mother-Child Interaction Before, During, and After Smartphone Use. *Frontiers in Psychology* 12: 929. [CrossRef]

Kushlev, Kostadin, and Elizabeth W. Dunn. 2019. Smartphones distract parents from cultivating feelings of connection when spending time with their children. *Journal of Social and Personal Relationships* 36: 1619–39. [CrossRef]

Kwon, Min, Joon-Yeop Lee, Wang-Youn Won, Jae-Woo Park, Jung-Ah Min, Changtae Hahn, Xinyu Gu, Ji-Hye Choi, and Dai-Jin Kim. 2013. Development and validation of a smartphone addiction scale (SAS). *PLoS ONE* 8: e56936. [CrossRef] [PubMed]

Linder, L. K., B. T. McDaniel, L. Stockdale, and S. M. Coyne. 2021. The impact of parent and child media use on early parent–infant attachment. *Infancy* 26: 551–69. [CrossRef] [PubMed]

Lippold, Melissa A., Larissa G. Duncan, J. Douglas Coatsworth, Robert L. Nix, and Mark T. Greenberg. 2015. Understanding how mindful parenting may be linked to mother–adolescent communication. *Journal of Youth and Adolescence* 44: 1663–73. [CrossRef] [PubMed]

Lippold, Melissa A., Larissa G. Duncan, J. Douglas Coatsworth, Robert L. Nix, and Mark T. Greenberg. 2021. Mindful parenting, parenting cognitions, and parent-youth communication: Bidirectional linkages and mediational processes. *Mindfulness* 12: 381–91. [CrossRef] [PubMed]

Lippold, Melissa A., and Larissa G. Duncan. 2018. Mindful Parenting. In *Encyclopedia of Adolescence*. Edited by Richard Levesque. New York: Springer.

Liu, Zhenzhen, Xiaomin Sun, Yarong Guo, and Shuting Yang. 2021. Mindful parenting is positively associated with adolescents' life satisfaction: The mediating role of adolescents' coping self-efficacy. *Current Psychology*. [CrossRef]

Ljubetić, Maja, and Ina Reić Ercegovac. 2020. The relationship between mindful parenting, cognitive parental awareness, and the subjective well-being of adolescents. *Metodičkiogledi: Časopis za Filozofiju Odgoja* 27: 103–26. [CrossRef]

Lo, Herman Hay Ming, Jerf Wai Keung Yeung, Larissa G. Duncan, Ying Ma, Angela Fung Ying Siu, Stanely Kam Chung Chan, Chun Wah Choi, Miu Ping Szeto, Ken King Wo Chow, and Siu Man Ng. 2018. Validating of the interpersonal mindfulness in parenting scale in Hong Kong Chinese. *Mindfulness* 9: 1390–401. [CrossRef]

MacDonald, Elaine E., and Richard P. Hastings. 2010. Mindful parenting and care involvement of fathers of children with intellectual disabilities. *Journal of Child and Family Studies* 19: 236–40. [CrossRef]

Mani, Madhavan, David J. Kavanagh, Leanne Hides, and Stoyan R. Stoyanov. 2015. Review and evaluation of mindfulness-based iPhone apps. *JMIR mHealth and uHealth* 3: e4328. [CrossRef]

Matthes, Jörg, Marina F. Thomas, Anja Stevic, and Desiree Schmuck. 2021. Fighting over smartphones? Parents' excessive smartphone use, lack of control over children's use, and conflict. *Computers in Human Behavior* 116: 106618. [CrossRef]

McDaniel, Brandon. T. 2019. Parent distraction with phones, reasons for use, and impacts on parenting and child outcomes: A review of the emerging research. *Human Behavior and Emerging Technologies* 1: 72–80. [CrossRef]

McDaniel, Brandon. T. 2020a. Technoference: Parent mobile device use and implications for children and parent-child relationships. *Zero To Three* 41: 30–36.

McDaniel, Brandon. T. 2020b. Parent perceptions of positive and negative impacts of phone use on parenting and associations with stress, depression, and child behavior. Presented at the National Council on Family Relations, Virtual, November 11.

McDaniel, Brandon. T. 2021. The DISRUPT: A measure of parent distraction with phones and mobiles devices and associations with depression, stress, and parenting quality. *Human Behavior and Emerging Technologies* 3: 922–32. [CrossRef]

McDaniel, Brandon. T., and Jenny Radesky. 2018a. Technoference: Parent distraction by technology and associations with child behavior problems. *Child Development* 89: 100–9. [CrossRef] [PubMed]

McDaniel, Brandon. T., and Jenny Radesky. 2018b. Technoference: Parent technology use, stress, and child behavior problems over time. *Pediatric Research* 84: 210–18. [CrossRef] [PubMed]

McDaniel, Brandon. T., and Jenny Radesky. 2020. Longitudinal associations between early childhood externalizing behavior, parenting stress, and child media use. *Cyberpsychology, Behavior, and Social Networking* 23: 384–91. [CrossRef] [PubMed]

McDaniel, Brandon T., and Sarah M. Coyne. 2016. Technology interference in the parenting of young children: Implications for mothers' perceptions of coparenting. *The Social Science Journal* 53: 435–43. [CrossRef]

McDaniel, Brandon. T., Elizabeth L. Adams, Emily E. Hohman, Victor P. Cornet MS, Lauren Reining, and Zachary Kaiser. 2021. Maternal nighttime phone use and impacts on daily happiness and exhaustion. *Acta Paediatrica*. [CrossRef]

McDaniel, Brandon T., Sarah M. Coyne, and Erin K. Holmes. 2012. New mothers and media use: Associations between blogging, social networking, and maternal well-being. *Maternal and Child Health Journal* 16: 1509–17. [CrossRef]

McIsaac, Julie Hurley. 2021. "What Were You Thinking?" Using Technology to Enhance Mentalization Capacity among Fathers: A Phenomenological Study. Doctoral dissertation, Fielding Graduate University, Santa Barbara, CA, USA.

Medeiros, Catarina, Maria João Gouveia, Maria Cristina Canavarro, and Helena Moreira. 2016. The indirect effect of the mindful parenting of mothers and fathers on the child's perceived well-being through the child's attachment to parents. *Mindfulness* 7: 916–27. [CrossRef]

Miller, Kelly F., Jessica L. Borelli, and Gayla Margolin. 2018. Parent–child attunement moderates the prospective link between parental overcontrol and adolescent adjustment. *Family Process* 57: 679–93. [CrossRef]

Minor, Holly G., Linda E. Carlson, Michael J. Mackenzie, Kristin Zernicke, and Lanice Jones. 2006. Evaluation of a mindfulness-based stress reduction (MBSR) program for caregivers of children with chronic conditions. *Social Work in Health Care* 43: 91–109. [CrossRef] [PubMed]

Moon, Rachel Y., Anita Mathews, Rosalind Oden, and Rebecca Carlin. 2019. Mothers' perceptions of the Internet and social media as sources of parenting and health information: Qualitative study. *Journal of Medical Internet Research* 21: e14289. [CrossRef] [PubMed]

Moreira, Helena, and Maria Cristina Canavarro. 2017. Psychometric properties of the Interpersonal Mindfulness in Parenting Scale in a sample of Portuguese mothers. *Mindfulness* 8: 691–706. [CrossRef]

Moreira, Helena, and Maria Cristina Canavarro. 2018. The association between self-critical rumination and parenting stress: The mediating role of mindful parenting. *Journal of Child and Family Studies* 27: 2265–75. [CrossRef]

Moreira, Helena, Brígida Caiado, and Maria Cristina Canavarro. 2021. Is mindful parenting a mechanism that links parents' and children's tendency to experience negative affect to overprotective and supportive behaviors? *Mindfulness* 12: 319–33. [CrossRef]

Moreira, Helena, Maria João Gouveia, and Maria Cristina Canavarro. 2018. Is mindful parenting associated with adolescents' well-being in early and middle/late adolescence? The mediating role of adolescents' attachment representations, self-compassion and mindfulness. *Journal of Youth and Adolescence* 47: 1771–88. [CrossRef]

Moujaes, Mara, and Diarmuid Verrier. 2021. Instagram use, InstaMums, and anxiety in mothers of young children. *Journal of Media Psychology: Theories, Methods, and Applications* 33: 72–81. [CrossRef]

Myruski, Sarah, Olga Gulyayeva, Samantha Birk, Koraly Pérez-Edgar, Kristin A. Buss, and Tracy A. Dennis-Tiwary. 2018. Digital disruption? Maternal mobile device use is related to infant social-emotional functioning. *Developmental Science* 21: e12610. [CrossRef]

Nabi, Robin L., and Marina Krcmar. 2016. It takes two: The effect of child characteristics on US parents' motivations for allowing electronic media use. *Journal of Children and Media* 10: 285–303. [CrossRef]

Neff, Kristin. 2003. Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and Identity* 2: 85–101. [CrossRef]

Neff, Kristin. D. 2011. Self-compassion, self-esteem, and well-being. *Social and Personality Psychology Compass* 5: 1–12. [CrossRef]

Neff, Kristin D., Kristin L. Kirkpatrick, and Stephanie S. Rude. 2007. Self-compassion and adaptive psychological functioning. *Journal of Research in Personality* 41: 139–54. [CrossRef]

Nikken, Peter, and Marjon Schols. 2015. How and why parents guide the media use of young children. *Journal of Child and Family Studies* 24: 3423–35. [CrossRef] [PubMed]

Pan, Junhao, Yiying Liang, Hui Zhou, and Yuyin Wang. 2019. Mindful parenting assessed in Mainland China: Psychometric properties of the Chinese version of the Interpersonal Mindfulness in Parenting Scale. *Mindfulness* 10: 1629–41. [CrossRef]

Panova, Tayana, and Xavier Carbonell. 2018. Is smartphone addiction really an addiction? *Journal of Behavioral Addictions* 7: 252–59. [CrossRef]

Parent, Justin, and Karissa DiMarzio. 2021. Advancing Mindful Parenting Research: An Introduction. *Mindfulness* 12: 261–65. [CrossRef]

Parent, Justin, Laura G. McKee, Jennifer N. Rough, and Rex Forehand. 2016. The association of parent mindfulness with parenting and youth psychopathology across three developmental stages. *Journal of Abnormal Child Psychology* 44: 191–202. [CrossRef]

Patterson, Gerald R., Barbara D. DeBaryshe, and Elizabeth Ramsey. 1989. A developmental perspective on antisocial behavior. *American Psychological Association* 44: 329–35. [CrossRef]

Pempek, Tiffany A., and Brandon T. McDaniel. 2016. Young children's tablet use and associations with maternal well-being. *Journal of Child and Family Studies* 25: 2636–47. [CrossRef]

Pew Research Center. 2017. A Third of Americans Live in a Household with Three or More Smartphones. Available online: http://www.pewresearch.org/fact-tank/2017/05/25/a-third-of-americans-live-in-a-household-with-three-or-more-smartphones/ (accessed on 5 October 2021).

Pew Research Center. 2021. Mobile Fact Sheet. Available online: https://www.pewresearch.org/internet/fact-sheet/mobile/ (accessed on 21 September 2021).

Przybylski, Andrew K., Kou Murayama, Cody R. DeHaan, and Valerie Gladwell. 2013. Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior* 29: 1841–48. [CrossRef]

Radesky, Jenny S., Caroline J. Kistin, Barry Zuckerman, Katie Nitzberg, Jamie Gross, Margot Kaplan-Sanoff, Marilyn Augustyn, and Michael Silverstein. 2014. Patterns of mobile device use by caregivers and children during meals in fast food restaurants. *Pediatrics* 133: e843–49. [CrossRef] [PubMed]

Radesky, Jenny S., Caroline Kistin, Staci Eisenberg, Jamie Gross, Gabrielle Block, Barry Zuckerman, and Michael Silverstein. 2016. Parent perspectives on their mobile technology use: The excitement and exhaustion of parenting while connected. *Journal of Developmental and Behavioral Pediatrics* 37: 694–701. [CrossRef] [PubMed]

Radesky, Jenny, Alison L. Miller, Katherine L. Rosenblum, Danielle Appugliese, Niko Kaciroti, and Julie C. Lumeng. 2015. Maternal mobile device use during a structured parent–child interaction task. *Academic Pediatrics* 15: 238–44. [CrossRef] [PubMed]

Radesky, Jenny, Christy Leung, Danielle Appugliese, Alison L. Miller, Julie C. Lumeng, and Katherine L. Rosenblum. 2018. Maternal mental representations of the child and mobile phone use during parent-child mealtimes. *Journal of Developmental and Behavioral Pediatrics: JDBP* 39: 310–17. [CrossRef] [PubMed]

Rainie, L., and K. Zickuhr. 2015. Americans' Views on Mobile Etiquette. Pew Research Center. Available online: https://www.pewresearch.org/wp-content/uploads/sites/9/2015/08/2015-08-26_mobile-etiquette_FINAL.pdf (accessed on 5 October 2021).

Reed, Jessa, Kathy Hirsh-Pasek, and Roberta Michnick Golinkoff. 2017. Learning on hold: Cell phones sidetrack parent-child interactions. *Developmental Psychology* 53: 1428–36. [CrossRef] [PubMed]

Richter, Kylie. 2018. Fear of Missing Out: Social Media Use and Parenting Styles. Doctoral dissertation, Abiline Christian University, Abilene, TX, USA.

Sameroff, Arnold. 2010. A unified theory of development: A dialectic integration of nature and nurture. *Child Development* 81: 6–22. [CrossRef]

Sbarra, David A., Julia L. Briskin, and Richard B. Slatcher. 2019. Smartphones and close relationships: The case for an evolutionary mismatch. *Perspectives on Psychological Science* 14: 596–618. [CrossRef]

Schultchen, Dana, Yannik Terhorst, Tanja Holderied, Michael Stach, Eva-Maria Messner, Harald Baumeister, and Lasse B. Sander. 2020. Stay present with your phone: A systematic review and standardized rating of mindfulness apps in European app stores. *International Journal of Behavioral Medicine* 28: 552–60. [CrossRef]

Sidani, Jaime E., Ariel Shensa, César G. Escobar-Viera, and Brian A. Primack. 2020. Associations between comparison on social media and depressive symptoms: A study of young parents. *Journal of Child and Family Studies* 29: 3357–68. [CrossRef]

Singh, Nirbhay N., Giulio E. Lancioni, Alan SW Winton, Barbara C. Fisher, Robert G. Wahler, Kristen Mcaleavey, Judy Singh, and Mohamed Sabaawi. 2006. Mindful parenting decreases aggression, noncompliance, and self-injury in children with autism. *Journal of Emotional and Behavioral Disorders* 14: 169–77. [CrossRef]

Singh, Nirbhay N., Giulio E. Lancioni, Alan SW Winton, Judy Singh, W. John Curtis, Robert G. Wahler, and Kristen M. McAleavey. 2007. Mindful parenting decreases aggression and increases social behavior in children with developmental disabilities. *Behavior Modification* 31: 749–71. [CrossRef] [PubMed]

Smith, Aaron. 2015. U.S. Smartphone Use in 2015. Pew Research Center. Available online: https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2015/03/PI_Smartphones_0401151.pdf (accessed on 5 October 2021).

Steiner-Adair, Catherine, and Teresa Barker. 2013. *The Big Disconnect: Protecting Childhood and Family Relationships in the Digital Age*. New York: Harper Collins.

Stockdale, Laura A., Christin L. Porter, Sarah M. Coyne, Liam W. Essig, McCall Booth, Savannah Keenan-Kroff, and Emily Schvaneveldt. 2020. Infants' response to a mobile phone modified still-face paradigm: Links to maternal behaviors and beliefs regarding technoference. *Infancy* 25: 571–92. [CrossRef] [PubMed]

Stockdale, Laura A., Sarah M. Coyne, and Laura M. Padilla-Walker. 2018. Parent and child technoference and socioemotional behavioral outcomes: A nationally representative sample of 10- to 20-year-old adolescents. *Computers in Human Behavior* 88: 219–26. [CrossRef]

Strange, Cecily, Colleen Fisher, Peter Howat, and Lisa Wood. 2018. 'Easier to isolate yourself . . . there's no need to leave the house'—A qualitative study on the paradoxes of online communication for parents with young children. *Computers in Human Behavior* 83: 168–75. [CrossRef]

Torres, Chioma, Jenny Radesky, Kimberley J. Levitt, and Brandon T. McDaniel. 2021. Is it fair to simply tell parents to use their phones less? A qualitative analysis of parent phone use. *Acta Paediatrica* 110: 2594–96. [CrossRef] [PubMed]

Townshend, Kishani. 2016a. Conceptualizing the key processes of mindful parenting and its application to youth mental health. *Australasian Psychiatry* 24: 575–77. [CrossRef]

Townshend, Kishani, Zoe Jordan, Matthew Stephenson, and Komla Tsey. 2016b. The effectiveness of mindful parenting programs in promoting parents' and children's wellbeing: A systematic review. *JBI Evidence Synthesis* 14: 139–80. [CrossRef]

Turpyn, Caitlin C., and Tara M. Chaplin. 2016. Mindful parenting and parents' emotion expression: Effects on adolescent risk behaviors. *Mindfulness* 7: 246–54. [CrossRef]

Van de Weijer-Bergsma, E., A. R. Formsma, E. I. de Bruin, and S. M. Bögels. 2012. The effectiveness of mindfulness training on behavioral problems and attentional functioning in adolescents with ADHD. *Journal of Child and Family Studies* 21: 775–87. [PubMed]

Van der Oord, Saskia, Susan M. Bögels, and Dorreke Peijnenburg. 2012. The effectiveness of mindfulness training for children with ADHD and mindful parenting for their parents. *Journal of Child and Family Studies* 21: 139–47. [CrossRef]

Van Ingen, Erik, Sonja Utz, and Vera Toepoel. 2016. Online coping after negative life events: Measurement, prevalence, and relation with internet activities and well-being. *Social Science Computer Review* 34: 511–29. [CrossRef]

Verduyn, Philippe, David Seungjae Lee, Jiyoung Park, Holly Shablack, Ariana Orvell, Joseph Bayer, Oscar Ybarra, John Jonides, and Ethan Kross. 2015. Passive Facebook usage undermines affective well-being: Experimental and longitudinal evidence. *Journal of Experimental Psychology: General* 144: 480. [CrossRef] [PubMed]

Verduyn, Philippe, David Seungjae Lee, Jiyoung Park, Holly Shablack, Ariana Orvell, Joseph Bayer, Oscar Ybarra, John Jonides, and Ethan Kross. 2017. Do social network sites enhance or undermine subjective well-being? A critical review. *Social Issues and Policy Review* 11: 274–302. [CrossRef]

Vieten, Cassi, and John Astin. 2008. Effects of a mindfulness-based intervention during pregnancy on prenatal stress and mood: Results of a pilot study. *Archives of Women's Mental Health* 11: 67–74. [CrossRef] [PubMed]

Vossen, Helen GM, and Patti M. Valkenburg. 2016. Do social media foster or curtail adolescents' empathy? A longitudinal study. *Computers in Human Behavior* 63: 118–24. [CrossRef]

Wolfers, Lara N. 2021. Parental mobile media use for coping with stress: A focus groups study. *Human Behavior and Emerging Technologies* 3: 304–15. [CrossRef]

Yang, Wanting, Ju Deng, and Yuyin Wang. 2021. The association between mindful parenting and adolescent internalizing and externalizing problems: The role of mother–child communication. *Child Psychiatry and Human Development*. [CrossRef]

Yuan, Nalingna, Heidi M. Weeks, Rosa Ball, Mark W. Newman, Yung-Ju Chang, and Jenny S. Radesky. 2019. How much do parents actually use their smartphones? Pilot study comparing self-report to passive sensing. *Pediatric Research* 86: 416–18. [CrossRef]

MDPI