adolescents

MDPI

Article

Interconnections between Emotion Recognition, Self-Processes and Psychological Well-Being in Adolescents

Meghan L. Maynard [1,*], Shanel Quenneville [1], Kristina Hinves [1], Victoria Talwar [2] and Sandra L. Bosacki [1]

[1] Faculty of Education, Brock University, 1812 Sir Isaac Brock Way, St. Catharines, ON L2S 3A1, Canada
[2] Faculty of Educational and Counselling Psychology, McGill University, Montreal, QC H3A 0G4, Canada
* Correspondence: mmaynard2@brocku.ca

Abstract: Background: Adolescence is a critical developmental period for mentalization and emotion regulation skills. Studies show that during this time, adolescents may experience greater vulnerability to challenges of mental and emotional well-being. Studies also show that self-skills, such as mentalization, self-compassion, and self-control are independently associated with feelings of global self-worth or psychological well-being. To date, no known studies have explored interconnected relations among these self-skills, despite significant overlaps in the social-biological development of these skills. Aims: To investigate interconnected relations among psychological well-being, mentalization, self-compassion and self-control. Gender differences in these relations are explored. Method: As part of a larger, longitudinal study of adolescent well-being, this cross-sectional study drew on a variety of self-report measures, investigating relations among adolescents' self-reports of psychological well-being, emotion recognition, self-control, and self-compassion. Participants consisted of 88 girls and 57 boys, mean age 13.38. Results: Main results showed associations among emotion recognition, self-control and self-compassion and feelings of global self-worth. Specifically, results showed that understanding negative emotions in others relates to lower levels of self-compassion and feelings of self-worth. Further, adolescents who report low levels of self-control reported uncompassionate self-responding and lower levels of self-worth. Gender differences and implications for further research and adolescent social-emotional interventions are discussed.

Keywords: theory of mind; self-compassion; well-being; adolescence; self-control; mindfulness

Citation: Maynard, M.L.; Quenneville, S.; Hinves, K.; Talwar, V.; Bosacki, S.L. Interconnections between Emotion Recognition, Self-Processes and Psychological Well-Being in Adolescents. *Adolescents* **2023**, *3*, 41–59. https://doi.org/10.3390/adolescents3010003

Academic Editor: Laura L. Hayman

Received: 24 August 2022
Revised: 14 December 2022
Accepted: 19 December 2022
Published: 23 December 2022

1. Introduction

Adolescence is a period of rapid growth and development, including the expansion of the neurophysiological systems that govern emotional regulation and self-processes [1–3]. During these early double-digit years, multiple changes occur simultaneously including the development of a highly primed nervous system coupled with a period of social transition. Such changes represent a developmental period that reflects a greater vulnerability to problems of mental and emotional well-being [3,4]. The focus of our study is psychological well-being, as reflected by perceived global self-worth. Ryff and Keyes [5] identify 6 dimensions of psychological well-being, including self-acceptance, or how one evaluates themselves and their life, with positive evaluations reflecting aspects of psychological well-being. Canadian adolescents have reported a steady decline in psychological well-being since 2015, with the COVID-19 pandemic accelerating reports of decreased mental health functioning [6]. Challenges of psychological well-being amongst adolescents have been associated with increased risk of suicide [7], addictions [8], poor academic performance [9], teenaged pregnancy [10], aggression and anti-social behaviour [11], Given the deleterious effects of mental health challenges for adolescent populations, understanding factors which may promote adolescent emotional and mental well-being are critical for this emotionally fragile population; more research is needed to explore protective and insulating factors,

such as mentalization, self-compassion, and self-control skills, which help youth negotiate such emotional and social challenges.

Research suggests that the self-process skills of mentalization (or Theory of Mind, ToM), self-control, and self-compassion are implicated in adolescent psychological well-being [12–14]. Further, the social and biological development of these self-skills reflect similar developmental pathways suggesting interconnected elements [1,15–18]. Although many studies explore individual differences in these adolescent self-processes [19–21], few studies explore the interrelation of such self-skills or how the interrelations of these skills are associated with subjective psychological well-being. Exploration of the interconnections among these self-skills is critical for the development of broadened knowledge as it relates to adolescent psychological well-being. Contemporary perspectives that inform current social-emotional knowledge prioritize exploration of interconnectivity and intersubjectivity to develop greater holistic knowledge of the complex human social-emotional experience (i.e., [22]). Investigation of the interconnectedness of self-process skills and their relations to psychological well-being in adolescence stands to fill a gap in the literature, and further broaden our understanding of factors related to adolescent well-being. To a greater extent, investigation of the interconnected elements of adolescent self-processes and well-being may illuminate risk and protective factors for adolescents as well as inform avenues of intervention for adolescents at risk of challenges of well-being. This exploratory study aims to understand the relations and interconnecting dynamics between subjective well-being, ToM (specifically emotion recognition), self-control, and compassionate self-responding in early adolescent populations. Based on past research, including social and affective neuroscience literature and the established relations between these self-processes and psychological well-being, we predict there will be interconnected associations among these self-skills. Given the lack of research on specific directionality of relations, our research study is exploratory as we are interested in the individual differences among self-compassion, self-control, well-being, and ToM and the inter-relations among these variables. The secondary aim of this study is the exploration of gender differences in relations among mentalization skills and self-processes.

1.1. The Social Brain and Self-Processes

Research acknowledges that the human brain is a social organ that emphasizes the ability to connect and relate to others for evolutionary survival, including neuroception ability (the implicit process of assessing environmental threats, and subsequent activation of the sympathetic nervous system (SNS) [23]. Mentalization skills are the foundation of one's ability to connect and relate to others. The ability to ascribe the desires, feelings, and thoughts of others allows individuals to make behavioural predictions and thus are imperative for evolutionary survival [24]. Neural development, particularly in areas of the brain responsible for social connection, affect and self-regulation, SNS arousal and self-processes are highly influenced by social environmental factors [22,25,26]. Specifically, research shows similarities (such as the impact of early attachment relationships) in the social-environmental influences on the development of mentalization, self-compassion, self-control, and psychological well-being [27–33].

1.2. Mentalization Skills, Self-Processes and Well-Being

Past studies show that independently, mentalization, self-compassion, and self-control are related to dimensions of psychological well-being in adolescents [12–14]. Internalizing concerns (such as depression and anxiety), and externalizing concerns (such as aggression and antisocial behavior) are represented in these associations i.e., [34–36].

Theory of Mind

The ability to focus awareness on the inner world of the self and others, including awareness of thoughts, feelings, and intentions, can be described as theory of mind (ToM) or mentalization [37]. ToM is a social metacognitive process that facilitates insight into the

self and empathy for others [38,39]. The construct of ToM is comprised of two dimensions, cognitive ToM (i.e., perspective-taking, beliefs about others, or intention ascription) and affective ToM (i.e., inferring and recognizing emotions, empathy) [40,41]. This study specifically explores affective ToM via affect recognition skills, the ability to infer the emotional state of others through the interpretation of emotional stimuli, such as facial expression.

Previous research reflects conflicting reports on the relation between ToM and factors of well-being. Understanding the mental states of others has been positively associated with social competence [42–44], an important consideration in adolescent well-being [39,40,45,46]. Additionally, ToM has been negatively linked to adolescents' experiences of loneliness, depression, and anxiety [12,47]. Conversely, Knight and Baune [48] identified that poor affect recognition and impairment in interpreting emotional stimuli often accompany depressive episodes. Proficiency in ToM is also related to lower self-reports of self-worth and well-being [36,48], while problems of well-being hallmarked by emotional dysregulation, poor impulse control, and negative self-perception have been associated with ToM proficiency [49].

1.3. Self-Compassion

Self-compassion, as defined by Neff, is "an emotionally positive self-attitude" [50] (abstract), that entails components of self-kindness, common humanity, and mindfulness. Self-compassion is the antithesis of harsh self-criticism, self-judgment, and rumination of painful emotional and cognitive experiences [50,51]. Research indicates that low levels of self-compassion are related to problems of emotional well-being and psychological distress [6]. Anxiety, depression, stress, emotional dysregulation, and personality disorders have all demonstrated a negative relation to self-compassion [13], with evidence suggesting low levels of self-compassion significantly predict psychological distress [52]. Neff [53] proposes that self-criticism is interpreted by the SNS as a threat to the self, activating an SNS survival response of "fight or flight". Additionally, Parrish et al. [17] propose that individuals impacted by low levels of self-compassion express hypervigilant neuroception.

1.4. Self-Control

The precise definition of self-control varies widely across disciplines [54,55]. Self-control is generally thought of as a metacognitive self-process that reflects one's ability to modulate the self in relation to the demands of the environment [56].

Studies show that aspects of self-control are intricately interconnected with dimensions of well-being [14]. For example, challenges with self-control or dysregulation have been found to be linked to personality disorders, externalizing behaviour problems (i.e., Attention Deficit Hyperactivity Disorder and Conduct Disorder), aggression, antisocial behaviours, substance use, school drop-out, unplanned teenage pregnancies, and long-term physical health issues [57–60]. Additionally, studies show that aspects of self-control are related to the quality of peer, teacher, and parent relationships, with challenges of self-control negatively impacting these social dynamics [59,61–63].

Existing research demonstrates relations between proficient abilities in self-control to high levels of academic achievement, social competence, more optimal emotional responses, and overall well-being [21,59,64–68]. Galla and Wood [21] found that adolescents with higher levels of self-control experience more mindful responses to daily stressors, while adolescents with lower self-control are more likely to feel less capable of managing stressful situations. Further, Galla and Wood's findings indicate that low self-controlled adolescents are also more likely to perceive stressful situations as more severe. They found that adolescents with higher levels of self-control experience more effectiveness in coping to reduce negative emotions and are less likely to perceive stressful situations as threats [68]. Further, Gilbert et al. [69] found that children who experience "overcontrol", characterized by elevated monitoring of performance and perfectionism, are at higher risk for challenges related to obsessive-compulsive symptoms, inhibition, and anxiety.

1.5. Inter-Relations among ToM, Self-Processes, Global Self-Worth

To our knowledge, no studies have directly explored the relations among well-being, Theory of Mind (ToM), self-compassion and self-control, despite considerable overlapping elements of these metacognitive self-processes. As referenced, these processes develop in response to similar social-biological factors and impairment of these processes can often be associated with the impact of early stress on the developing brain [17,53,70–73].

Developmental research suggests that the development of ToM has been linked to the emergence of executive functioning skills such as self-control [74,75]. Further, studies indicate increased ToM abilities correlate to lower levels of aggressive behaviour [76], suggesting a positive relation between ToM and self-control. The expression of self-control often relies on the use of cognitive reappraisal, the act of reflecting on one's own thoughts and interpretations to facilitate a more adaptive cognitive response to stimuli [77]. Studies indicate that individuals with heightened self-control demonstrate more reliance on self-reflective processes [21,74,78], potentially indicating that self-reflection and the development of knowledge of one's own mental state and the mental state of others (as reflected by ToM abilities), may thus be linked to the development of self-control abilities.

The link between self-compassion and self-control has yet to be explored explicitly, however overlapping, and inter-related aspects are well supported [21,34,50,79]. Studies suggest that the process of self-compassion may contribute to emotional regulation, reducing SNS activation by dampening feelings of threat or anxiety [17,34]. Salovey & Mayer [80] indicate that mindful attention to self, which is present in the process of self-compassion [50], helps individuals to guide their behavioural responses. The experience of high self-compassion predicts higher levels of cognitive reappraisal [81], which is a key feature of self-control abilities [77,82,83]. Adolescents who demonstrate higher levels of self-control are more likely to remain mindfully present when faced with stress and conflict compared to adolescents with lower self-control [21].

Further, Neff and Beretvas [79] identified that individuals with greater self-compassion were described by their romantic partners as less controlling and less physically and verbally aggressive than those lacking self-compassion. Yang et al. [84] produced similar findings, indicating that higher levels of self-compassion are positively related to prosocial behaviour. Self-compassion-based interventions have also positively affected participants' impulse-control abilities [85], while Terry and Leary [86] postulate that self-compassion promotes self-regulation "by lowering defensiveness, reducing the emotional states and self-blame that interfere with self-regulation" (abstract).

With respect to the interconnected nature of self-compassion and ToM, past studies show that a state of self-compassion has been linked to feelings of interconnectedness and compassion for others (Fromm, 1963 as cited by Neff [50]), components additionally linked to advanced ToM abilities [27,87]. Mindful attention to one's own emotional processes is a necessary element of self-compassion [50], overlapping considerably with the ability to identify and monitor one's own emotions as reflected in ToM abilities.

Moreover, extant studies in neurobiology connect SNS arousal and amygdala activation independently with ToM performance, self-control, self-compassion, and well-being [88–92]. Liotti & Gilbert [89] indicate that ToM performance may decrease during "fight or flight" amygdala activation, however Fertuck and colleagues [49] identified superior ToM performance in clinical populations often impacted by elevated SNS activity [93]. Comparable clinical populations are also noted to experience lower levels of self-control [90,91,94], low self-compassion [95] and challenges in psychological well-being [92,95]. Further, extant research indicates that SNS arousal is triggered by both physical threats and emotional threats, such as those present in self-criticism [53]. Considered in concert, these studies suggest that uncompassionate self-responding such as self-criticism, may negatively affect self-control abilities. Although the majority of past studies focus on clinical populations, they provide insight into possible relations among typically developing adolescents' ToM, self-compassion, self-control and well-being.

1.6. Gender Differences in Well-Being, Mentalization and Self-Processes in Adolescents

Gender differences in ToM, self-control, psychological well-being and self-compassion have been established in the literature. Gender differences in ToM tasks have been identified, with females typically expressing greater ToM abilities than their male counterparts [96–98]. Research into gender differences in cognitive and affective ToM produce conflicting results. Turkstra and colleagues [99] found that enhanced ToM abilities in females was specifically related to affective ToM, while Gabriel and colleagues [100] found no gender differences in affective ToM abilities. With respect to self-compassion, studies indicate that adult female-identifying individuals demonstrate lower levels of self-compassion than their male-identifying counterparts [101–103].

There is a significant gap in the literature as it pertains to gender differences in self-compassion among adolescent populations, which this study aims to address. Talwar et al. [104] explored predictive relations between ToM (cognitive, affective, empathic dimensions) and self-compassion in adolescent populations, and found that ToM skills did not predict self-compassion. However, among male adolescents only, affective ToM skills or the ability to recognize emotions in others, predicted higher levels of compassionate self-responding. Such findings highlight the individual differences in the relations among emotion recognition and self-compassion in adolescent females and males and suggests the need for further study.

The present research builds on Talwar et al.'s [104] findings and includes the role of self-control and global self-worth in the relations between ToM and self-compassion. Studies on the expression of self-control among children and adolescents show that females typically express higher levels of self-control than males [105], and challenges of self-control (such as externalizing behaviour problems) are reported at higher rates in male populations [106,107]. While adolescence represents a period of increased vulnerability to challenges of psychological well-being for all adolescents, this is particularly salient for females. Studies show that during adolescence, females report significantly higher levels of internalizing problems, such as anxiety, depression, and low self-worth [108,109].

2. Materials and Methods

2.1. Current Study

Research indicates significant overlap in the neurobiological and social development of ToM, and the self-processes of self-compassion and self-control, potentially indicating interconnected relations among these skills. Furthermore, as discussed above, each of these skills have demonstrated links to indicators of psychological well-being. Despite these connections, to date, to the best of our knowledge, research on the interconnection of these variables among adolescents remains unknown. To address this gap in the literature, the primary purpose of the present study was to explicitly investigate how ToM, self-compassion, self-control, and well-being as measured by perceived global self-worth are interconnected. The second aim of this study was to explore gender differences in interconnected relations to determine if gender affects relations of these variables. To our knowledge, no studies have directly explored potential interconnected relations among ToM, well-being, self-compassion, and self-control.

Drawing on the theoretical and empirical literature discussed above, we predicted there would be relations among all the main variables, with significant individual differences among scores. Given contradictory findings on gender and ToM, and self-processes, our investigation of gender differences was exploratory, and no specific predictions were made.

2.2. Methods

Participants

As part of a larger longitudinal study on adolescents' social, emotional, and cognitive development, the present study consisted of 145 Canadian adolescents, girls (N = 88) and boys (N = 57), ranging in age from 12.08 to 15.08 years (M = 13.38, SD = 0.908). The majority of participants spoke English as a first language (65.8%) and reflected a predominantly

upper middle-class socio-economic status (SES), with 60% of respondents indicating an annual family income of $100,000 or higher. Participating urban and rural school boards and individual schools shared recruitment information widely within the school community, and interested participants volunteered to participate. Ethics clearance was obtained from the universities and participating school boards. Parental informed consent and adolescent participant assent was obtained prior to the start of the study. All data source measures were completed confidentially, and data was de-identified prior to analysis to protect participant privacy and confidentiality.

2.3. Measures

2.3.1. Affective Theory of Mind

To assess affective ToM, the Reading the Mind in the Eyes assessment was administered (RME) [110]. This pencil and paper measure assesses the ability to identify the emotional states of others as expressed by human eyes. Each item of the measure contains a photograph of the eye region conveying an emotional expression. For each photograph, four emotion-based descriptive words are listed, and the participant is required to choose the word that best matches the facial expression. Each item has one correct answer and is scored as one point. Scores range from 0 to 36 with higher scores indicating a greater ability to read subtle emotions. The RME provides a total assessment of ToM, along with three subscales: perception of emotions of neutral valence, emotions of negative valence and emotions of positive valence. The RME assessment has been validated as an effective overall measure of ToM [111], and can be considered an affective recognition task [112].

2.3.2. Self-Compassion

The Self-Compassion Scale- Short Form (SCS-SF) [113] was used as a measure of self-compassion. Adapted from the Self-Compassion Scale long-form [114], this tool assesses qualities of self-kindness, sense of common humanity, and mindfulness; together reflecting a measure of self-compassion. The SCS-SF is a 12-item, Likert scale measure. Items are rated from 1 (almost never) to 5 (almost always). Example items include: "I try to see my failings as part of the human condition" and "When I fail at something important to me I become consumed by feelings of inadequacy". Negative subscale items (self-judgment, isolation, and over-identification) are reverse scored in calculating the total mean score. A higher score indicates higher levels of self-compassion. The SCS-SF demonstrates good internal consistency (Cronbach's alpha ≥ 0.86), and high correlation with the long form ($r \geq 0.97$) [113], a valid and reliable measure of self-compassion [115].

2.3.3. Self-Control

The Brief Self Control Scale (SCS-B) [14] is a 10-item, Likert scale measure, used to measure aspects of self-control. The SCS-B measures one's self-reported ability to change one's inner responses, enact behavioural impulse control, regulate thoughts, alter moods and emotions, and achieve optimal performance (e.g., persistence) [14]. Example items include: "I get distracted easily" and "I often act without thinking". The scale demonstrates good internal consistency (Cronbach's alpha ranging between 0.83–0.85) and test-re-test reliability of 0.87 [14].

Additionally, Harter's Self Perception Profile for Children (SPPC) [116], behavioural conduct subscale was used as a measure of self-control. The SPPC measures children's self-reports of dimensions of self-esteem, including scholastic competence, athletic competence, social competence, physical appearance, behavioural conduct, and global self-worth [116]. The behavioural conduct subscale includes 6 items that report on a child's perception of their ability to behave in a socially expected manner, avoid getting into trouble, make prosocial choices, and the degree in which a child approves of their own behaviour [116]. Items are presented in two parts with phrasing reflecting high and low perceptions of competence. Respondents indicate their selection between the high competence statement and low competence statement, and subsequently select whether the statement is "sort of

true for me" or "really true for me". For example, "Some kids often do not like the way they behave BUT other kids usually like the way they behave" or "Some kids usually get in trouble because of things they do BUT other kids usually don't do things that get them in trouble". The behavioural conduct subscale offers good internal consistency (Cronbach's alpha ranging from 0.71–0.87), and validity [116].

2.3.4. Well-Being

As global self-worth reflects a dimension of psychological well-being [5], the SPPC, global self-worth subscale [116] was administered. This 6-item subscale evaluates one's happiness with themselves, giving consideration to an individual's life satisfaction, and level of contentment with oneself as a person. Example items include: "Some kids are happy with themselves as a person BUT other kids are not happy with themselves" and "Some kids like the kind of person they are BUT other kids often wish they were someone else". This subscale reflects good internal consistency (Cronbach's alpha ranging from 0.78–0.87) and validity [116].

2.4. Procedure

This cross-sectional study reports on data collected during the year of (2016–2017) of a longitudinal study on adolescents' ToM and well-being. Once university and school board ethics clearance were received, parental consent and adolescent assent were obtained. Participants were administered a battery of self-report questionnaires to assess ToM and self-processes including self-compassion, self-worth, and self-control. The questionnaires were administered by researchers in the school classrooms with teachers present, during regular school hours.

3. Results

3.1. Data Analysis and Descriptive Statistics

Data was analyzed using IBM SPSS for Windows, version 28. Correlational analysis of ToM (total and subscales), self-compassion, self-control (SPPC and SCS-B) and well-being was completed, followed by z-tests for means to analyze gender differences of these correlations. Independent sample t-tests were used to test for significant gender differences of the variables, in addition to two -way analysis of variance to explore the interaction of gender and ToM on self-processes. Post-hoc multiple linear regression was used to test for mediation effects to further elucidate our correlational findings. Table 1 provides a table of descriptive statistics.

Table 1. Descriptive Statistics.

Variable	Mean	SD	Skewness	Kurtosis
RME total	20.94	5.13	−0.444	1.443
RME positive	4.76	1.56	−0.230	−0.667
RME neutral	8.65	2.69	−0.067	−0.586
RME negative	7.12	1.96	−0.102	−0.319
Self-Compassion	2.84	0.613	−0.218	0.113
SCS-B	3.15	0.743	−0.089	−0.289
SPPC, behavioural conduct	2.89	0.697	−0.235	−0.497
SPPC, global self-worth subscale	2.92	0.723	−0.691	0.105

3.1.1. Group Differences and Correlations

Results showed significant correlations among ToM (affect recognition), well-being, self-control and self-compassion (see Table 2). Affect recognition skills related to well-being (GSW), self-compassion and self-control. Higher levels of affect recognition of negative emotions, as well as total affect recognition related to lower levels of self-compassion and lower reports of GSW. Affect recognition of emotions of positive affect was not related to any other variable, whereas proficiency in neutral affect recognition, related to higher

levels of self-control. High levels of self-control were also associated with high levels of self-compassion. Both measures of self-control (SPPC—behavioral conduct and SCS-B) positively related to GSW. Further, adolescents who reported high levels of GSW also reported high levels of self-compassion.

Table 2. Correlations between all variables.

Variable	1.	2.	3.	4.	5.	6.	7.
1. SCS-B (Self-Control)							
2. SPPC (Behavioural Conduct)	0.550 **						
3. SPPS (Global Self-Worth)	0.376 **	0.444 **					
4. Self-Compassion	0.361 **	0.132	0.531 **				
5. RME Positive	0.032	0.086	−0.139	−0.068			
6. RME Negative	−0.141	−0.032	−0.238 **	−0.344 **	0.195 *		
7. RME Neutral	0.248 **	0.131	−0.069	−0.155	0.249 **	0.416 **	
8. RME Total	0.151	0.085	−0.172	−0.195 *	0.438 **	0.718 **	0.785 **

Note. ** $p < 0.001$, * $p < 0.05$.

Z-tests for means were conducted to analyse gender differences in the correlations. No significant gender differences were identified. Independent sample t-tests identified that girls consistently demonstrated greater ToM ability across all RME subscales—RME total (t (73.98) = 3.271, p = 0.002), RME positive (t (143) = 3.588, p = 0.000), RME neutral (t (101.61) = 2.684, p = 0.009, RME negative (t (143) = 2.189, p = 0.030. No significant gender differences were identified for self-compassion, self-control or GSW.

3.1.2. Analysis of Variance

Two-way ANOVAs analysed the influence of gender and ToM high-low scores on self-compassion, self-control (SCS-B and SPPC, behavioural subscale) and subjective well-being (GSW). There were no significant interactions with ToM high-low scores and gender on self-compassion, but results showed a significant main effect of ToM and self-compassion (F (1, 144) = 8.067, p = 0.005), as participants with low levels of ToM scored higher on self-compassion (M = 2.982, SE = 0.068), compared to participants with high levels of ToM (M = 2.668, SE = 0.087). Results also indicated a significant main effect of self-control and gender (F (1, 143) = 4.808, p = 0.030), that females scored higher on self-control (M = 2.985, SE = 0.075) compared to males (M = 2.705, SE = 0.104). Finally, there were no significant interactions with gender and ToM on GSW, but there was a significant main effect of ToM and GSW (F (1, 143) = 6.792, p = 0.010), as adolescents with lower total ToM scores experienced higher levels of GSW (M = 3.064, SE = 0.080) compared to those with higher ToM scores (M = 2.726, SE = 0.102).

3.1.3. Mediation

Initial data analysis findings raised further research questions regarding potential mediating effects. Post-hoc mediation analysis was used to further elucidate the relations among RME (neutral), GSW and self-control, and the relations among GSW, self-compassion and self-control. Data analysis, drawing from Baron and Kenny's [117] causal step approach (see Figure 1 for path diagram) was used to investigate the hypotheses: (1) well-being (global self-worth) mediates the relation between RME (neutral) and self-control (DV self-control), and (2) well-being mediates the relation between self-compassion and self-control (DV self-control). All coefficients reported are unstandardized, with two-tailed a = 0.05 as the criterion for statistical significance.

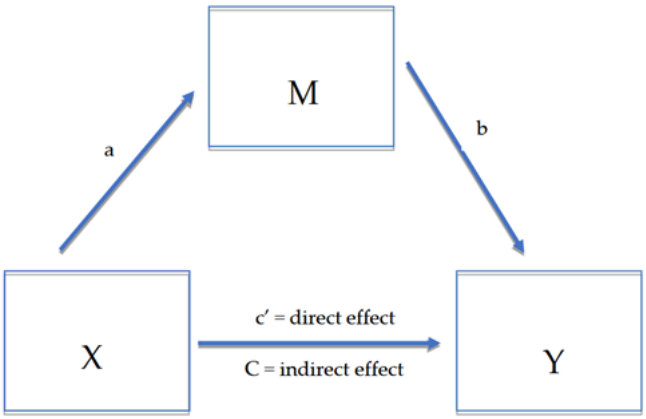

Figure 1. Mediation Model Path. In this model, X denotes one predictor variable, M denotes one mediator, and Y denotes one outcome variable. The parameters a,b,c′ and C denotes path (regression) coefficients.

With respect to hypothesis 1, a simple linear regression was used to test if RME (neutral) significantly predicted self-control (path C). This regression was statistically significant (R^2 = 0.061, F(1145) = 9.49, $p \leq 0.002$). Next, a simple linear regression tested if RME (neutral) significantly predicted GSW (path a), these results were non-significant, failing to reject the null hypothesis (R^2 = 0.005, F(1, 402) = 2.034, p = *0*.155). With respect to hypothesis 2, a simple linear regression was used to test if self-compassion significantly predicted self-control (path C). The overall regression was statistically significant (R^2 = 0.130, F(1, 145) = 21.66, $p < 0.001$) b = 0.437, $p < 0.001$). Next a simple linear regression was used to test if self-compassion significantly predicted GSW (path a). This regression was statistically significant (R^2 = 0.283, F(1, 145) = 57.244, $p < 0.001$), b = 0.626, $p < 0.001$). Finally, self-control was regressed on self-compassion and GSW (path c′). These results were statistically significant (R^2 = 0.178, F(2, 144) = 15.571, $p < 0.001$) b = 0.270, p = 0.014. These results suggest GSW partially mediates the relation between self-compassion and self-control (b mediation effect = C-c′; 0.437−0.270 = 0.167).

4. Discussion

The outcomes of this study reflect several key findings; providing insight into how ToM, self-compassion, self-control, and well-being are interrelated. Further, our findings illuminate several key gender differences within these interrelations. As predicted, significant relations were found among ToM, compassionate self-responding, perceived self-control, and global self-worth. A primary finding was that the relations among self-compassion, self-control, and global self-worth were largely associated with specifically valenced affect recognition skills. Such findings suggest that nuanced affective recognition abilities help to shape how adolescents regulate their thoughts and actions about their personal and social lives. In the following sections, these key findings are discussed within the context of past literature, followed by limitations and implications for future research and practice.

Our findings suggest that adolescents who demonstrate a heightened ability to perceive emotions in others, particularly negative emotions, experience increased negative feelings towards themselves, such as criticism and judgement. Alternatively, the present findings could suggest that participants with feelings of kindness and compassion directed toward themselves were less likely to recognize emotions in others. Likewise, our findings indicate that adolescents' perceptions of their global self-worth are also associated with the ability to perceive emotions, particularly negative emotions, in others. More specifically, the present sample of adolescents who endorsed lower levels of global self-worth demonstrated a greater ability to accurately detect negative emotions in others. In contrast, those youth who reported higher levels of global self-worth were less likely to perceive negative emotion in others.

Such findings support past studies that show relations between self-compassion and dimensions of well-being in both adult and adolescent populations [13,52]. Given that self-compassion has a strong and predictive relation to subjective well-being [118], it is unsurprising that low levels of subjective well-being and self-compassion were similarly related to an intensified ability to detect emotions of negative valence in others. Given that facial expressions of negative valence may be interpreted by the SNS as an indicator of threat [119], our results align with Parrish et al. [17] and Neff's [53] proposals that individuals who use more critical self-responding, experience more hypervigilant neuroception, or those with hypervigilant neuroception experience low-levels of self-compassion. Moreover, challenges of emotional well-being are also associated with increased SNS activation and thus heightened threat perception [23,120]. Further studies that explore longitudinal predictive relations among affect recognition, well-being, and self-compassion may further elucidate these findings.

Moreover, results from the current study also showed that self-control was associated with higher levels of self-compassion and global self-worth, demonstrating that adolescents who are more adept at regulating their behavioural responses approach themselves with kindness and endorse higher levels of perceived well-being. Consistent with these findings, past studies show that hypervigilant neuroception, as demonstrated by adolescents with low levels of self-compassion in this study, relates to low levels of affect regulation, behavioural disinhibition, suboptimal executive functioning skills, and mental health disorders [95,121–123]. These findings suggest that youth who present with challenges of self-control are likely to be more self-critical and judge themselves negatively.

The present findings have implications for mindfulness practice and social-emotional learning within the secondary school classroom, specifically, given that mindfulness is the foundation of self-compassion [124]. Past research shows that programs that aim to enhance adolescent self-control have historically been cognitive behavioural (i.e., explicit skill-based instruction, and self-monitoring) in nature [125], with mindfulness-based interventions becoming increasingly prevalent over the last decade [126]. Mindfulness-based interventions emphasize the development of one's skill in "moment-to-moment, non-judgmental awareness", accentuating non-reactive, non-judgmental attention to the present moment which includes both internal (thoughts, emotions, physical sensations) and external (i.e., social environment, sensory input) stimuli [127] (p. 1481). Further, attitudinal qualities of mindfulness are the foundation of which mindfulness practice is built on [128]. These attitudinal qualities include curiosity, openness, patience, kindness, empathy, taking a nonevaluative stance towards stimuli, non-attachment (allowing thoughts, feelings, and sensations to come and go without striving towards or away from experiences), non-reactivity to inner experiences, and gratitude [128–130]. Although mindfulness-based interventions have been shown to improve self-control skills in adolescents [131,132], few studies focus on specific qualities of mindfulness—such as acceptance, loving-kindness, and compassion [124]. While these attitudinal qualities of mindfulness are foundational to enhancing self-compassion, and self-compassion does often increase with mindfulness intervention, it is often an indirect biproduct [124].

Germer and Neff [124] advocate for explicit instruction and practice of loving-kindness and qualities of self-compassion in mindfulness-based interventions. Studies on self-compassion-based interventions for challenges of self-control are scarce in adult populations, and almost absent for adolescent populations. While a limited number of self-compassion-based interventions have been developed for youth i.e., [133], to date, few if any programs specifically targeted self-control in adolescence, and no known research has assessed the relation between self-compassion and adolescent self-control. Thus, our findings provide support for the development of mindful and self-compassion-based prevention and intervention programs that aim to promote the growth of adolescents' social-cognitive and self-regulation skills.

The links found in the present study between mentalization skills such as emotion recognition and the ability to regulate one's thoughts and behaviour may suggest that the

interpersonal skill (concerning recognizing the emotions of the 'other') and intrapersonal skill such as the regulation of one's actions that involves the 'self' may represent a larger constellation of mentalization abilities. Such findings support past literature that suggests emotion recognition of others and self-processes are all connected as they are pieces of the large social cognitive puzzle that further expands during adolescence.

Interestingly, the ability to recognize neutral emotions in others, such as insisting or contemplative, related to higher levels of self-control abilities. Further, mediation analysis of perceptions of global self-worth on the relation between the ability to recognize neutral emotions and high levels of self-control showed that only the ability to recognize neutral emotions predicted self-control and not one's perceptions of global self-worth. In light of previous studies that indicate that individuals are more likely to perceive emotions that match their own emotional state [134] these findings may reflect those adolescents with higher levels of self-control experience more balanced (neutral) emotional states and arousal [135]. Affect is a result of a person's evaluations and perceptions of the environment, with neutral affect reflecting neither positive nor negative evaluations [136]. Adolescents who sustain more neutral affect likely approach environmental stimuli non-judgmentally, with acceptance, and with social understanding [135,137], reflecting foundational qualities of mindfulness [128]. Drawing on the research of Gasper et al. [135] and Wilson and Gilbert [137], our findings may provide further support for mindfulness-based interventions for self-control which emphasize foundational qualities of mindfulness, such as non-judgment and acceptance. Further, mindfulness self-compassion-based interventions emphasize foundational mindfulness qualities including acceptance and non-judgment of the self [124], and considering the associations identified in this study between self-compassion and self-control, mindful self-compassion-based interventions are likely to bolster the positive effects of mindfulness on self-control i.e., [138].

To our knowledge, few, if any, studies have explored the effects of mindful self-compassion-based interventions on self-control in adolescent populations. Additionally, our findings show a mediating effect of subjective well-being on the association between self-compassion and self-control. Subjective well-being or perceived global self-worth partially mediated the relation between self-compassion and self-control. This suggests that self-compassion influences adolescents' subjective well-being or global self-worth, which influences adolescent self-control. These findings suggest that adolescents who demonstrate compassionate self-responding may experience a heightened sense of subjective well-being and self-control. In contrast, adolescents who demonstrate uncompassionate self-responding likely experience lower levels of GSW and lower levels of self-control. While subjective well-being plays a role in the underlying mechanisms of the association, other variables likely play a role in the relation as well. Further studies may consider the role of early attachment patterns, teacher-student relationships, parent and teacher representations of adolescents, and the role of adverse childhood experiences as they relate to the interconnected dynamic of self-compassion, well-being, and self-control.

Our findings on gender differences indicating females demonstrate enhanced emotion recognition are supported by past studies [139], however our study does indicate some novel findings. Consistently, female adolescents demonstrated more skillful affect recognition across all domains of the RME test, suggesting female adolescents who participated in our study showed higher levels of nuanced emotion recognition than their male counterparts, and thus may be more perceptive to all the emotional states of others. Furthermore, in contrast to studies with adults that identify marginal differences in emotion recognition task performance between males and females [139], our findings found that adolescent females demonstrated affect recognition abilities 2–3 times higher than male adolescents.

Developmental neuroscience suggests that adolescent male neural development lags females' in areas of the brain associated with affect recognition skills [140–143]. This developmental gap has also been documented in social-cognitive abilities [144], with neural and social-cognitive development between males and females only becoming more closely comparable in adulthood [145]. Given the early adolescent period of development

for our study, the male participants in our study may be at a different developmental period than our female participants. Thus, gender differences in social-cognitive or neurobiological development, may help explain the significant discrepancy between adolescent male and female emotion recognition ability in our study. Further longitudinal studies are needed to explore the development of affect recognition skills across adolescence and early adulthood. Such studies may provide additional insights into gender differences in the development of this social-cognitive skill.

Contrary to previous findings which suggest that adult females experience lower levels of self-compassion than adult males [103,146,147], our data suggests that there are no gender differences in the experience of self-compassion among early adolescents. This finding indicates that the experience of self-compassion as it relates to females is not a fixed experience or may suggest that adolescents may have different feelings of self-compassion in comparison to adults. Research suggests that adolescent females are at higher risk for developing internalizing problems, such as anxiety or depression [148], with indicators of these problems peaking in mid to late adolescence [149]. Critical self-responding (low self-compassion) is representative of an internalized negative self-process which includes negative or critical perceptions, cognitions and evaluations directed at the self [50]. We propose that female adolescents' development of critical self-responding likely follows a similar pathway to other internalizing challenges, with higher levels of self-judgement emerging in mid to late adolescence, thus not reflected by the early adolescent population of this study. Longitudinal studies that explore self-compassion from latency to adulthood may provide further insight into the development of gender disparity of compassionate self-responding.

Regarding self-control, the present findings showed that female adolescents reported higher levels of behavioural conduct or were more likely to follow the rules and conform to standards within the classroom than boys, whereas they scored similarly to boys on trait self-control. These findings may suggest that while there are no gender differences in trait self-control, females perceive their behavioural conduct to represent social norms of behaviour more significantly, as compared to males. Gender differences in self-perception and female proclivity towards social acceptance [150–152] may account for these differences.

Our results differ from previous studies that found no gender differences for the SPPC—behavioural conduct subscale [153], however it must be noted that previous studies of the SPPC-behavioural conduct subscale have reflected younger population samples. These differences in findings may be explained by the proclivity for females to move towards other-oriented pro-social behaviour with development [154,155]. Contrary to our prediction, no significant interactions were found between gender, ToM, self-control, and well-being. Again, the early adolescent stage of development of study participants may provide context for these findings. Further studies which explore these interactions across adolescent development and into adulthood may identify varying results with age and development.

Implications and Limitations

Given that our study is one of the few to explore the individual differences and relations between emotion recognition, well-being, and self-processes in adolescents, our findings provide valuable insights into mental and social development. That is, our results provide support for the interconnections among self and other processes and lend to the development of intervention methods to enhance adolescent well-being. Building on previous mindfulness-based interventions for adolescent self-control [131,132], our findings support the need for the addition of explicit instruction in dimensions of self-compassion [124]. Such interventions may help researchers who work with youth to seek alternative interventions to traditional cognitive behavioural and traditional mindfulness-based interventions [126,156].

Future studies also need to explore the presence of any longitudinal predictive relation between self-compassion and self-control, or between self-compassion and heightened

negative affect recognition. Insight into possible predictive relations may further guide the development of proactive and responsive interventions for children and youth to enhance well-being by more clearly targeting problem etiology. Given extensive support in the literature [16,25,28–30,72,157], variables related to parent-child attachment and/or relationships should be considered in future studies to assess for a mediating or moderating effect on self-process relations. Future studies with respect to the relation between affective and cognitive ToM and self-control may further elucidate and ratify our findings. Moreover, a neurophysiology-based exploration of these findings may generate additional insights and knowledge. Future research could also explore how self-compassion and mindfulness-based interventions for adolescents' impact well-being, with consideration to both general and clinical populations.

Despite these strengths, our study is not without limitations which we will list below. For example, our participants were mainly an English speaking and high economic earning community sample and may not generalize to a larger, more diverse population. Further, consideration must also be given to the possibility of sampling bias given the self-selected nature of our participants. Future studies should consider clinical population samples, better reflecting youth who endorse problems of other markers of well-being beyond perceptions of global self-worth, including a constellation of both internalizing (i.e., mood and anxiety disorders, Post-Traumatic Stress Disorder) and externalizing (i.e., conduct, hyperactivity, substance use, attention/concentration, social skills) problems.

Future studies should also move beyond self-report only, and consider multiple measures of subjective and objective well-being through self, parent, and teacher reports, such as measures that assess symptoms of anxiety, depression, attention deficit hyperactivity disorder, and conduct disorder. Participants in this study broadly consisted of a homogenous sample with respect to language and SES, and as such it is unclear if the findings can be generalized; future studies should include a more ethnically and economically diverse sample. This study was limited to one measure of the affective dimension of ToM, with an emphasis on emotion recognition. Future research may consider inclusion of multiple measures of ToM that reflect additional social-cognitive processes, such as, perspective taking, content false-belief paradigms, social situation understanding, and intention explanations [158]. Attention to additional indicators of ToM may clarify if this study's results more accurately reflect emotional recognition, or if results encompass a wider conceptualization of ToM.

5. Conclusions

Our findings highlight complex inter-relations between social-cognition, self-processes, and personal happiness (or psychological well-being. Our findings suggest that adolescents' compassionate self-responding skills may have a positive influence on an adolescent's perception of their personal happiness and self-control. Further, our findings have established a link between proficiency in the perception of affect in others, especially negative affect, and critical self-responding for adolescents. Together these findings support the development and implementation of self-compassion-based interventions for youth for enhancing self-control, personal well-being, and SNS regulation. Overall, our study shows the complex interplay between affective ToM, well-being, and self-processes among adolescents. It is our hope that the present study's findings of interconnections among these social and self-skills provides insight into approaches for enhancing and protecting the well-being of adolescents.

Author Contributions: Conceptualization, M.L.M., S.L.B. and V.T.; methodology, M.L.M., S.L.B. and S.Q.; software, M.L.M. and S.Q.; validation, M.L.M., S.Q., K.H., S.L.B. and V.T.; formal analysis, S.Q. and M.L.M.; investigation, M.L.M., S.Q. and K.H.; resources, S.L.B. and V.T.; data curation, S.L.B. and V.T.; writing—original draft preparation, M.L.M.; writing—review and editing, S.Q., K.H., S.L.B., V.T. and M.L.M.; visualization, S.Q. and M.L.M.; supervision, S.L.B.; project administration, V.T. and S.L.B.; funding acquisition, V.T. and S.L.B. All authors have read and agreed to the published version of the manuscript.

Funding: This research was supported by the Social Sciences and Humanities Research Council of Canada [435-2015-0010].

Institutional Review Board Statement: The study was conducted in accordance with the ethical standards of the American Psychological Association, and was approved by the Research Ethics Board of Brock University, #14-260 June, 2016.

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

Data Availability Statement: The data that support the findings of this study are available from the corresponding author upon reasonable request.

Acknowledgments: We are grateful to the schools, children, and parents who participated in our research.

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

1. Choudhury, S.; Charman, T.; Blakemore, S.-J. Development of the Teenage Brain. *Mind Brain Educ.* **2008**, *2*, 142–147. [CrossRef]
2. Larsen, B.; Luna, B. Adolescence as a neurobiological critical period for the development of higher-order cognition. *Neurosci. Biobehav. Rev.* **2018**, *94*, 179–195. [CrossRef] [PubMed]
3. Siegel, D.J. *Brainstorm: The Power and Purpose of the Teenage Brain*; Penguin: New York, NY, USA, 2013.
4. Gilbert, P.; Irons, C. Shame, self-criticism, and self-compassion in adolescence. In *Adolescent Emotional Development and the Emergence of Depressive Disorders*; Allen, N.B., Sheeber, L.B., Eds.; Cambridge University Press: Cambridge, UK, 2008; pp. 195–214. [CrossRef]
5. Ryff, C.D.; Keyes, C.L.M. The structure of psychological well-being revisited. *J. Pers. Soc. Psychol.* **1995**, *69*, 719–727. [CrossRef] [PubMed]
6. Statistics Canada. Portrait of Youth in Canada: Physical Health & Behaviours. 1 February 2021. Available online: https://www150.statcan.gc.ca/n1/pub/11-627-m/11-627-m2021011-eng.htm (accessed on 7 December 2022).
7. King, C.A.; Brent, D.; Grupp-Phelan, J.; Shenoi, R.; Page, K.; Mahabee-Gittens, E.M.; Chernick, L.S.; Melzer-Lange, M.; Rea, M.; McGuire, T.C.; et al. Five Profiles of Adolescents at Elevated Risk for Suicide Attempts: Differences in Mental Health Service Use. *J. Am. Acad. Child Adolesc. Psychiatry* **2019**, *59*, 1058–1068. [CrossRef] [PubMed]
8. Mohamadian, F.; Veisani, Y.; Jalilian, Z. Relationship between internet addiction and mental health in adolescents. *J. Educ. Health Promot.* **2020**, *9*, 303. [CrossRef]
9. Wallin, A.S.; Koupil, I.; Gustafsson, J.-E.; Zammit, S.; Allebeck, P.; Falkstedt, D. Academic performance, externalizing disorders and depression: 26,000 adolescents followed into adulthood. *Soc. Psychiatry Psychiatr. Epidemiol.* **2019**, *54*, 977–986. [CrossRef]
10. Yager, J. ADHD and Teenage Pregnancy Rates. *NEJM J. Watch Psychiatry*. October 2019. Available online: https://www.proquest.com/docview/2304068133/abstract/523CD1FBBF2645BDPQ/1 (accessed on 7 December 2022).
11. Langley, K.; Fowler, T.; Ford, T.; Thapar, A.K.; Bree, M.V.D.; Harold, G.; Owen, M.J.; O'Donovan, M.; Thapar, A. Adolescent clinical outcomes for young people with attention-deficit hyperactivity disorder. *Br. J. Psychiatry* **2010**, *196*, 235–240. [CrossRef]
12. Caputi, M.; Schoenborn, H. Theory of mind and internalizing symptoms during middle childhood and early adolescence: The mediating role of coping strategies. *Cogent Psychol.* **2018**, *5*, 1487270. [CrossRef]
13. Marsh, I.C.; Chan, S.W.Y.; MacBeth, A. Self-compassion and Psychological Distress in Adolescents—A Meta-analysis. *Mindfulness* **2017**, *9*, 1011–1027. [CrossRef]
14. Tangney, J.P.; Baumeister, R.; Boone, A.L. High Self-Control Predicts Good Adjustment, Less Pathology, Better Grades, and Interpersonal Success. *J. Pers.* **2004**, *72*, 271–324. [CrossRef]
15. Brune, M.; Brune-Cohrs, U. Theory of mind—Evolution, ontogeny, brain mechanisms and psychopathology. *Neurosci. Biobehav. Rev.* **2006**, *30*, 437–455. [CrossRef]
16. McMahon, C.; Meins, E. Mind-mindedness, parenting stress, and emotional availability in mothers of preschoolers. *Early Child. Res. Q.* **2012**, *27*, 245–252. [CrossRef]
17. Parrish, M.H.; Inagaki, T.K.; Muscatell, K.A.; Haltom, K.E.B.; Leary, M.R.; Eisenberger, N.I. Self-compassion and responses to negative social feedback: The role of fronto-amygdala circuit connectivity. *Self Identity* **2018**, *17*, 723–738. [CrossRef]
18. Pepping, C.A.; Davis, P.J.; O'Donovan, A.; Pal, J. Individual Differences in Self-Compassion: The Role of Attachment and Experiences of Parenting in Childhood. *Self Identity* **2014**, *14*, 104–117. [CrossRef]
19. Bosacki, S.L. Theory of mind and self-concept in preadolescents: Links with gender and language. *J. Educ. Psychol.* **2020**, *92*, 709–717. [CrossRef]
20. Donald, J.N.; Ciarrochi, J.; Parker, P.D.; Sahdra, B.K.; Marshall, S.L.; Guo, J. A worthy self is a caring self: Examining the developmental relations between self-esteem and self-compassion in adolescents. *J. Pers.* **2017**, *86*, 619–630. [CrossRef]

21. Galla, B.M.; Wood, J.J. Trait Self-Control Predicts Adolescents' Exposure and Reactivity to Daily Stressful Events. *J. Pers.* **2014**, *83*, 69–83. [CrossRef]
22. Siegel, D.J. *The Developing Mind*, 2nd ed.; The Guilford Press: New York, NY, USA, 2012.
23. Porges, S.W. The polyvagal theory: New insights into adaptive reactions of the autonomic nervous system. *Clevel. Clin. J. Med.* **2009**, *76*, S86–S90. [CrossRef]
24. Tsoukalas, I. Theory of Mind: Towards an Evolutionary Theory. *Evol. Psychol. Sci.* **2017**, *4*, 38–66. [CrossRef]
25. Cozolino, L. *The Neuroscience of Psychotherapy*, 3rd ed.; W.W. Norton and Company: New York, NY, USA, 2017.
26. Siegel, D. *Pocket Guide to Interpersonal Neurobiology*; W.W. Norton and Company: New York, NY, USA, 2012.
27. Hughes, C.; Leekam, S. What are the Links Between Theory of Mind and Social Relations? Review, Reflections and New Directions for Studies of Typical and Atypical Development. *Soc. Dev.* **2004**, *13*, 590–619. [CrossRef]
28. Peter, D.; Gazelle, H. Anxious Solitude and Self-Compassion and Self-Criticism Trajectories in Early Adolescence: Attachment Security as a Moderator. *Child Dev.* **2017**, *88*, 1834–1848. [CrossRef] [PubMed]
29. Wei, M.; Liao, K.Y.-H.; Ku, T.-Y.; Shaffer, P.A. Attachment, Self-Compassion, Empathy, and Subjective Well-Being Among College Students and Community Adults. *J. Pers.* **2010**, *79*, 191–221. [CrossRef] [PubMed]
30. Casey, B.J.; Caudle, K. The Teenage Brain. *Curr. Dir. Psychol. Sci.* **2013**, *22*, 82–87. [CrossRef] [PubMed]
31. Hare, T.A.; Camerer, C.F.; Rangel, A. Self-Control in Decision-Making Involves Modulation of the vmPFC Valuation System. *Science* **2009**, *324*, 646–648. [CrossRef] [PubMed]
32. Miller, H.V.; Jennings, W.G.; Alvarez-Rivera, L.L.; Lanza-Kaduce, L. Self-control, attachment, and deviance among Hispanic adolescents. *J. Crim. Justice* **2009**, *37*, 77–84. [CrossRef]
33. Nie, Y.-G.; Li, J.-B.; Vazsonyi, A.T. Self-control mediates the associations between parental attachment and prosocial behavior among Chinese adolescents. *Pers. Individ. Differ.* **2016**, *96*, 36–39. [CrossRef]
34. Allen, A.; Leary, M. Self-Compassion, Stress, and Coping. *Soc. Pers. Psychol. Compass* **2010**, *4*, 107–118. [CrossRef]
35. Bennett, S.; Farrington, D.P.; Huesmann, L.R. Explaining gender differences in crime and violence: The importance of social cognitive skills. *Aggress. Violent Behav.* **2005**, *10*, 263–288. [CrossRef]
36. Bosacki, S.; Sitnik, V.; Dutcher, K.; Talwar, V. Gratitude, Social Cognition, and Well-Being in Emerging Adolescents. *J. Genet. Psychol.* **2018**, *179*, 256–269. [CrossRef]
37. Allen, J.G.; Fonagy, P.; Bateman, A.W. *Mentalizing in Clinical Practice*; American Psychiatric Publishing Inc.: Arlington VA, USA, 2008.
38. Fonagy, P.; Gergely, G.; Target, M.; Jurist, E.L. *Affect Regulation, Mentalization, and the Development of the Self*; Other Press, LLC: New York, NY, USA, 2002.
39. Hooker, C.I.; Verosky, S.C.; Germine, L.T.; Knight, R.T.; D'Esposito, M. Mentalizing about emotion and its relationship to empathy. *Soc. Cogn. Affect. Neurosci.* **2008**, *3*, 204–217. [CrossRef]
40. Frith, C.D.; Frith, U. The Neural Basis of Mentalizing. *Neuron* **2006**, *50*, 531–534. [CrossRef]
41. Kalbe, E.; Schlegel, M.; Sack, A.T.; Nowak, D.A.; Dafotakis, M.; Bangard, C.; Brand, M.; Shamay-Tsoory, S.; Onur, O.A.; Kessler, J. Dissociating cognitive from affective theory of mind: A TMS study. *Cortex* **2010**, *46*, 769–780. [CrossRef]
42. Bosacki, S.; Astington, J.W. Theory of Mind in Preadolescence: Relations Between Social Understanding and Social Competence. *Soc. Dev.* **2001**, *8*, 237–255. [CrossRef]
43. Devine, R.T.; Apperly, I.A. Willing and able? Theory of mind, social motivation, and social competence in middle childhood and early adolescence. *Dev. Sci.* **2021**, *25*, e13137. [CrossRef]
44. Giurgi-Oncu, C.; Bredicean, C.; Frandeș, M.; Enătescu, V.; Papavă, I.; Riviș, I.; Ursoniu, S. Social Inferences as Mediators of Wellbeing in Depression. *Neuropsychiatr. Dis. Treat.* **2021**, *17*, 1679–1687. [CrossRef]
45. Holopainen, L.; Lappalainen, K.; Junttila, N.; Savolainen, H. The Role of Social Competence in the Psychological Well-being of Adolescents in Secondary Education. *Scand. J. Educ. Res.* **2012**, *56*, 199–212. [CrossRef]
46. Rice, K.G.; Cunningham, T.J.; Young, M.B. Attachment to parents, social competence, and emotional well-being: A comparison of Black and White late adolescents. *J. Couns. Psychol.* **1997**, *44*, 89–101. [CrossRef]
47. Bosacki, S.; Moreira, F.P.; Sitnik, V.; Andrews, K.; Talwar, V.; Moriera, F.P. Theory of Mind, Self-Knowledge, and Perceptions of Loneliness in Emerging Adolescents. *J. Genet. Psychol.* **2019**, *181*, 14–31. [CrossRef]
48. Knight, M.J.; Baune, B.T. Social cognitive abilities predict psychosocial dysfunction in major depressive disorder. *Depress. Anxiety* **2019**, *36*, 54–62. [CrossRef]
49. Fertuck, E.A.; Jekal, A.; Song, I.; Wyman, B.; Morris, M.C.; Wilson, S.T.; Brodsky, B.S.; Stanley, B. Enhanced 'Reading the Mind in the Eyes' in borderline personality disorder compared to healthy controls. *Psychol. Med.* **2009**, *39*, 1979–1988. [CrossRef]
50. Neff, K. Self-Compassion: An Alternative Conceptualization of a Healthy Attitude Toward Oneself. *Self Identity* **2003**, *2*, 85–101. [CrossRef]
51. Neff, K.D. The Differential Effects Fallacy in the Study of Self-compassion: Misunderstanding the Nature of Bipolar Continuums. *Mindfulness* **2022**, *13*, 572–576. [CrossRef]
52. Krieger, T.; Berger, T.; Holtforth, M.G. The relationship of self-compassion and depression: Cross-lagged panel analyses in depressed patients after outpatient therapy. *J. Affect. Disord.* **2016**, *202*, 39–45. [CrossRef] [PubMed]
53. Neff, K.D. The Physiology of Self-Compassion. *Self-Compassion*. 2 July 2012. Available online: https://self-compassion.org/the-physiology-of-self-compassion/ (accessed on 26 February 2022).

54. Carver, S.C.; Scheier, F.M. *Handbook of Self-Regulation: Research, Theory, and Applications*, 3rd ed.; Vohs, K.D., Baumeister, R.F., Eds.; Guilford Publications: New York, NY, USA, 2016; pp. 3–23.
55. Duckworth, A.L.; Kern, M.L. A meta-analysis of the convergent validity of self-control measures. *J. Res. Pers.* **2011**, *45*, 259–268. [CrossRef] [PubMed]
56. Rothbaum, F.; Weisz, J.R.; Snyder, S.S. Changing the world and changing the self: A two-process model of perceived control. *J. Pers. Soc. Psychol.* **1982**, *42*, 5–37. [CrossRef]
57. Davenport, J.; Bore, M.; Campbell, J. Changes in personality in pre- and post-dialectical behaviour therapy borderline personality disorder groups: A question of self-control. *Aust. Psychol.* **2009**, *45*, 59–66. [CrossRef]
58. Franken, A.; Moffitt, T.E.; Steglich, C.E.G.; Dijkstra, J.K.; Harakeh, Z.; Vollebergh, W.A.M. The Role of Self-Control and Early Adolescents' Friendships in the Development of Externalizing Behavior: The SNARE Study. *J. Youth Adolesc.* **2015**, *45*, 1800–1811. [CrossRef]
59. Krueger, R.F.; Caspi, A.; Moffitt, T.E.; White, J.; Stouthamer-Loeber, M. Delay of Gratification, Psychopathology, and Personality: Is Low Self-Control Specific to Externaiizing Problems? *J. Pers.* **1996**, *64*, 107–129. [CrossRef]
60. Moffitt, T.E.; Arseneault, L.; Belsky, D.; Dickson, N.; Hancox, R.J.; Harrington, H.; Houts, R.; Poulton, R.; Roberts, B.W.; Ross, S.; et al. A gradient of childhood self-control predicts health, wealth, and public safety. *Proc. Natl. Acad. Sci. USA* **2011**, *108*, 2693–2698. [CrossRef]
61. Hoza, B.; Mrug, S.; Gerdes, A.C.; Hinshaw, S.P.; Bukowski, W.M.; Gold, J.A.; Kraemer, H.C.; Pelham, W.E.; Wigal, T.; Arnold, L.E. What Aspects of Peer Relationships Are Impaired in Children With Attention-Deficit/Hyperactivity Disorder? *J. Consult. Clin. Psychol.* **2005**, *73*, 411–423. [CrossRef]
62. Nixon, E. The Social Competence of Children with Attention Deficit Hyperactivity Disorder: A Review of the Literature. *Child Psychol. Psychiatry Rev.* **2001**, *6*, 172–180. [CrossRef]
63. Rosen, P.J.; Vaughn, A.J.; Epstein, J.N.; Hoza, B.; Arnold, L.E.; Hechtman, L.; Molina, B.S.G.; Swanson, J.M. Social Self-Control, Externalizing Behavior, and Peer Liking Among Children with ADHD-CT: A Mediation Model. *Soc. Dev.* **2013**, *23*, 288–305. [CrossRef]
64. Compton, R.J.; Arnstein, D.; Freedman, G.; Dainer-Best, J.; Liss, A.; Robinson, M.D. Neural and behavioral measures of error-related cognitive control predict daily coping with stress. *Emotion* **2011**, *11*, 379–390. [CrossRef]
65. Eisenberg, N.; Hofer, C.; Sulik, M.J.; Spinrad, T.L. Self-regulation, effortful control, and their socioemotional correlates. In *Handbook of Emotion Regulation*, 2nd ed.; The Guilford Press: New York, NY, USA, 2014; pp. 157–172.
66. Liew, J.; Eisenberg, N.; Reiser, M. Preschoolers' effortful control and negative emotionality, immediate reactions to disappointment, and quality of social functioning. *J. Exp. Child Psychol.* **2004**, *89*, 298–319. [CrossRef]
67. Romer, D.; Duckworth, A.L.; Sznitman, S.; Park, S. Can Adolescents Learn Self-control? Delay of Gratification in the Development of Control over Risk Taking. *Prev. Sci.* **2010**, *11*, 319–330. [CrossRef]
68. Wills, T.A.; Simons, J.S.; Sussman, S.; Knight, R. Emotional self-control and dysregulation: A dual-process analysis of pathways to externalizing/internalizing symptomatology and positive well-being in younger adolescents. *Drug Alcohol Depend.* **2016**, *163*, S37–S45. [CrossRef]
69. Gilbert, K.; Sudit, E.; Fox, N.A.; Barch, D.M.; Luby, J.L. Childhood behavioral inhibition and overcontrol: Relationships with cognitive functioning, error monitoring, anxiety and obsessive-compulsive symptoms. *Res. Child Adolesc. Psychopathol.* **2022**, *50*, 1629–1642. [CrossRef]
70. Greenberg, M.T. Attachment and psychopathology in childhood. In *Handbook of Attachment: Theory, Research and Clinical Applications*; Guilford Press: New York, NY, USA, 1999; pp. 469–496.
71. Quidé, Y.; Ong, X.H.; Mohnke, S.; Schnell, K.; Walter, H.; Carr, V.J.; Green, M.J. Childhood trauma-related alterations in brain function during a Theory-of-Mind task in schizophrenia. *Schizophr. Res.* **2017**, *189*, 162–168. [CrossRef]
72. Schore, A.N. Relational Trauma and the Developing Right Brain. *Ann. New York Acad. Sci.* **2009**, *1159*, 189–203. [CrossRef]
73. Schore, A.N. Modern attachment theory. In *APA Handbook of Trauma Psychology: Foundations in Knowledge*; Gold, S.N., Ed.; American Psychological Association: Washington, DC, USA, 2017; pp. 389–406. [CrossRef]
74. Carlson, S.M.; Moses, L. Individual Differences in Inhibitory Control and Children's Theory of Mind. *Child Dev.* **2001**, *72*, 1032–1053. [CrossRef]
75. Perner, J.; Lang, B. Development of theory of mind and executive control. *Trends Cogn. Sci.* **1999**, *3*, 337–344. [CrossRef] [PubMed]
76. Khayyer, Z.; Oreyzi, H.; Asgari, K.; Sikström, S. Self-perception and interpersonal peacefulness: The mediating role of theory of mind and harmony. *J. Aggress. Confl. Peace Res.* **2019**, *11*, 180–199. [CrossRef]
77. Ecutuli, D. Cognitive reappraisal and expressive suppression strategies role in the emotion regulation: An overview on their modulatory effects and neural correlates. *Front. Syst. Neurosci.* **2014**, *8*, 175. [CrossRef]
78. Carlson, S.M.; Moses, L.J.; Breton, C. How specific is the relation between executive function and theory of mind? Contributions of inhibitory control and working memory. *Infant Child Dev.* **2002**, *11*, 73–92. [CrossRef]
79. Neff, K.D.; Beretvas, S.N. The Role of Self-compassion in Romantic Relationships. *Self Identity* **2013**, *12*, 78–98. [CrossRef]
80. Salovey, P.; Mayer, J.D. Emotional Intelligence. *Imagin. Cogn. Personal.* **1990**, *9*, 185–211. [CrossRef]
81. Bates, G.W.; Elphinstone, B.; Whitehead, R. Self-compassion and emotional regulation as predictors of social anxiety. *Psychol. Psychother. Theory, Res. Pr.* **2020**, *94*, 426–442. [CrossRef]

82. Park, S.; Lee, J.-H. How cognitive reappraisal of anger influences risk-taking behavior. *Soc. Behav. Pers. Int. J.* **2011**, *39*, 411–418. [CrossRef]
83. Sheppes, G.; Catran, E.; Meiran, N. Reappraisal (but not distraction) is going to make you sweat: Physiological evidence for self-control effort. *Int. J. Psychophysiol.* **2009**, *71*, 91–96. [CrossRef]
84. Yang, B.; Chen, B.-B.; Qu, Y.; Zhu, Y. Impacts of Parental Burnout on Chinese Youth's Mental Health: The Role of Parents' Autonomy Support and Emotion Regulation. *J. Youth Adolesc.* **2021**, *50*, 1679–1692. [CrossRef]
85. Dundas, I.; Binder, P.-E.; Hansen, T.G.B.; Stige, S.H. Does a short self-compassion intervention for students increase healthy self-regulation? A randomized control trial. *Scand. J. Psychol.* **2017**, *58*, 443–450. [CrossRef]
86. Terry, M.L.; Leary, M.R. Self-compassion, self-regulation, and health. *Self Identity* **2011**, *10*, 352–362. [CrossRef]
87. Bosacki, S.; Moreira, F.; Sitnik, V.; Andrews, K.; Talwar, V. Theory of Mind, Emotion Knowledge, and School Engagement in Emerging Adolescents. *Lnternational Electron. J. Elem. Educ.* **2019**, *11*, 529–538. [CrossRef]
88. Arch, J.J.; Brown, K.W.; Dean, D.J.; Landy, L.N.; Brown, K.D.; Laudenslager, M. Self-compassion training modulates alpha-amylase, heart rate variability, and subjective responses to social evaluative threat in women. *Psychoneuroendocrinology* **2014**, *42*, 49–58. [CrossRef]
89. Liotti, G.; Gilbert, P. Mentalizing, motivation, and social mentalities: Theoretical considerations and implications for psychotherapy. *Psychol. Psychother. Theory, Res. Pr.* **2010**, *84*, 9–25. [CrossRef]
90. Simmen-Janevska, K.; Forstmeier, S.; Krammer, S.; Maercker, A. Does Trauma Impair Self-Control? Differences in Delaying Gratification Between Former Indentured Child Laborers and Nontraumatized Controls. *Violence Vict.* **2015**, *30*, 1068–1081. [CrossRef]
91. Simons, R.M.; Walters, K.J.; Keith, J.A.; Simons, J.S. Posttraumatic Stress Disorder and Conduct Problems: The Role of Self-Control Demands. *J. Trauma. Stress* **2020**, *34*, 298–308. [CrossRef]
92. Van der Kolk, B.A. *The Body Keeps the Score: Mind, Brain and Body in the Transformation of Trauma*; Penguin Books: London, UK, 2014.
93. Weinberg, A.; Klonsky, E.D.; Hajcak, G. Autonomic impairment in Borderline Personality Disorder: A laboratory investigation. *Brain Cogn.* **2009**, *71*, 279–286. [CrossRef]
94. Zhang, Z.; Dang, J.; Li, J.; He, Y.; Huang, S.; Wang, Y.; Yang, X. Childhood Trauma and Self-Control: The Mediating Role of Depletion Sensitivity. *J. Child Fam. Stud.* **2021**, *30*, 1599–1606. [CrossRef]
95. Ford, J.D. Neurobiological and developmental research: Clinical implications. In *Treating Complex Traumatic Stress Disorders*; Courtois, C.A., Ford, J.D., Eds.; Guilford Press: New York, NY, USA, 2014; pp. 31–58.
96. Devine, R.T.; Hughes, C. Silent Films and Strange Stories: Theory of Mind, Gender, and Social Experiences in Middle Childhood. *Child Dev.* **2012**, *84*, 989–1003. [CrossRef]
97. Fujita, B.N.; Harper, R.G.; Wiens, A.N. Encoding-decoding of nonverbal emotional messages: Sex differences in spontaneous and enacted expressions. *J. Nonverbal Behav.* **1980**, *4*, 131–145. [CrossRef]
98. Hoffmann, H.; Kessler, H.; Eppel, T.; Rukavina, S.; Traue, H.C. Expression intensity, gender and facial emotion recognition: Women recognize only subtle facial emotions better than men. *Acta Psychol.* **2010**, *135*, 278–283. [CrossRef] [PubMed]
99. Turkstra, L.S.; Mutlu, B.; Ryan, C.W.; Stafslien, E.H.D.; Richmond, E.K.; Hosokawa, E.; Duff, M.C. Sex and Gender Differences in Emotion Recognition and Theory of Mind After TBI: A Narrative Review and Directions for Future Research. *Front. Neurol.* **2020**, *11*, 59. [CrossRef] [PubMed]
100. Gabriel, E.T.; Oberger, R.; Schmoeger, M.; Deckert, M.; Vockh, S.; Auff, E.; Willinger, U. Cognitive and affective Theory of Mind in adolescence: Developmental aspects and associated neuropsychological variables. *Psychol. Res.* **2019**, *85*, 533–553. [CrossRef] [PubMed]
101. Neff, K.D.; Hsieh, Y.-P.; Dejitterat, K. Self-compassion, Achievement Goals, and Coping with Academic Failure. *Self Identity* **2005**, *4*, 263–287. [CrossRef]
102. Raes, F. Rumination and worry as mediators of the relationship between self-compassion and depression and anxiety. *Pers. Individ. Differ.* **2010**, *48*, 757–761. [CrossRef]
103. Yarnell, L.M.; Stafford, R.E.; Neff, K.D.; Reilly, E.D.; Knox, M.C.; Mullarkey, M. Meta-Analysis of Gender Differences in Self-Compassion. *Self Identity* **2015**, *14*, 499–520. [CrossRef]
104. Talwar, V.; Castellanos, M.; Bosacki, S. Self-compassion, social cognition, and self-affect in adolescence: A longitudinal study. *Self Identity* **2022**, 1–19. [CrossRef]
105. Ehosseini-Kamkar, N.; Emorton, J.B. Sex differences in self-regulation: An evolutionary perspective. *Front. Neurosci.* **2014**, *8*, 233. [CrossRef]
106. Gershon, J. A Meta-Analytic Review of Gender Differences in ADHD. *J. Atten. Disord.* **2002**, *5*, 143–154. [CrossRef]
107. Mohammadi, M.-R.; Salmanian, M.; Keshavarzi, Z. The Global Prevalence of Conduct Disorder: A Systematic Review and Meta-Analysis. *Iran. J. Psychiatry* **2021**, *16*, 205–225. [CrossRef]
108. Graber, J.A.; Sontag, L.M. Internalizing problems during adolescence. In *Handbook of Adolescent Psychology: Individual Bases of Adolescent Development*; Lerner, R.M., Steinberg, L., Eds.; John Wiley and Sons: New York, NY, USA, 2009; pp. 642–682.
109. Gutman, L.M.; McMaster, N.C. Gendered Pathways of Internalizing Problems from Early Childhood to Adolescence and Associated Adolescent Outcomes. *J. Abnorm. Child Psychol.* **2020**, *48*, 703–718. [CrossRef]

110. Baron-Cohen, S.; Wheelwright, S.; Hill, J.; Raste, Y.; Plumb, I. The 'Reading the Mind in the Eyes' Test revised version: A study with normal adults, and adults with Asperger syndrome or high-functioning autism. *J. Child Psychol. Psychiatry* **2001**, *42*, 241–251. [CrossRef]
111. Vellante, M.; Baron-Cohen, S.; Melis, M.; Marrone, M.; Petretto, D.R.; Masala, C.; Preti, A. The "Reading the Mind in the Eyes" test: Systematic review of psychometric properties and a validation study in Italy. *Cogn. Neuropsychiatry* **2013**, *18*, 326–354. [CrossRef]
112. Megías-Robles, A.; Gutiérrez-Cobo, M.J.; Cabello, R.; Gómez-Leal, R.; Baron-Cohen, S.; Fernández-Berrocal, P. The 'Reading the mind in the Eyes' test and emotional intelligence. *R. Soc. Open Sci.* **2020**, *7*, 201305. [CrossRef]
113. Raes, F.; Pommier, E.; Neff, K.D.; Van Gucht, D. Construction and factorial validation of a short form of the Self-Compassion Scale. *Clin. Psychol. Psychother.* **2010**, *18*, 250–255. [CrossRef]
114. Neff, K.D. The Development and Validation of a Scale to Measure Self-Compassion. *Self Identity* **2003**, *2*, 223–250. [CrossRef]
115. Neff, K.D. The Self-Compassion Scale is a Valid and Theoretically Coherent Measure of Self-Compassion. *Mindfulness* **2015**, *7*, 264–274. [CrossRef]
116. Harter, S. Self Perception Profile for Children: Manual and Questions, Grades 3-University of Denver. 2012. Available online: https://www.apa.org/obesity-guideline/self-preception.pdf (accessed on 15 March 2022).
117. Baron, R.M.; Kenny, D.A. The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *J. Pers. Soc. Psychol.* **1986**, *51*, 1173–1182. [CrossRef]
118. Cunha, M.; Martinho, M.; Xavier, A.; Santo, H.E. Early memories of positive emotions and its relationships to attachment styles, self-compassion and psychopathology in adolescence. *Eur. Psychiatry* **2013**, *28* (Supp. 1), 1. [CrossRef]
119. Green, M.J.; Phillips, M.L. Social threat perception and the evolution of paranoia. *Neurosci. Biobehav. Rev.* **2004**, *28*, 333–342. [CrossRef]
120. Yang, T.T.; Simmons, A.N.; Matthews, S.C.; Tapert, S.F.; Frank, G.K.; Max, J.E.; Bischoff-Grethe, A.; Lansing, A.E.; Brown, G.; Strigo, I.A.; et al. Adolescents With Major Depression Demonstrate Increased Amygdala Activation. *J. Am. Acad. Child Adolesc. Psychiatry* **2010**, *49*, 42–51. [CrossRef] [PubMed]
121. Cozolino, L.; Samuelson, C.; Drulis, C. The interpersonal neurobiology of executive functioning. In *Interpersonal Neurobiology and Clinical Practice*; Siegel, D.J., Schore, A.N., Cozolino, L., Eds.; W.W. Norton & Company: New York, NY, USA, 2021; pp. 59–72.
122. Hart, C. Held in mind, out of awareness. Perspectives on the continuum of dissociated experience, culminating in dissociative identity disorder in children. *J. Child Psychother.* **2013**, *39*, 303–318. [CrossRef]
123. Van Peer, J.M.; Spinhoven, P.; Roelofs, K. Psychophysiological evidence for cortisol-induced reduction in early bias for implicit social threat in social phobia. *Psychoneuroendocrinology* **2010**, *35*, 21–32. [CrossRef] [PubMed]
124. Germer, C.; Neff, K. *Teaching the Mindful Self-Compassion Program: A Guide for Professionals*; Guilford Publications: New York, NY, USA, 2019.
125. Weissberg, R.P.; Durlak, J.A.; Domitrovich, C.E.; Gullotta, T.P. Social and Emotional Learning: Past, present, and future. In *Handbook of Social and Emotional Learning: Research and Practice*; Guilford Press: New York, NY, USA, 2015; pp. 3–19.
126. Gagne, J.R.; Nwadinobi, O.K. Self-Control Interventions That Benefit Executive Functioning and Academic Outcomes in Early and Middle Childhood. *Early Educ. Dev.* **2018**, *29*, 971–987. [CrossRef]
127. Kabat-Zinn, J. Mindfulness. *Mindfulness* **2015**, *6*, 1481–1483. [CrossRef]
128. Britton, W.B. Can mindfulness be too much of a good thing? The value of a middle way. *Curr. Opin. Psychol.* **2019**, *28*, 159–165. [CrossRef]
129. Eisenlohr-Moul, T.A.; Walsh, E.C.; Charnigo, R.J.; Lynam, N.R.; Baer, R.A. The "What" and the "How" of Dispositional Mindfulness: Using Interactions Among Subscales of the Five-Facet Mindfulness Questionnaire to Understand Its Relation To Substance Use. *Assessment* **2012**, *19*, 276–286. [CrossRef]
130. Linehan, M. *DBT Skills Training Manual*, 2nd ed.; The Guilford Press: New York, NY, USA, 2015.
131. Anila, M.M.; Dhanalakshmi, D. Mindfulness Based Stress Reduction for Reducing Anxiety, Enhancing Self-Control and Improving Academic Performance among Adolescent Students. *Indian J. Posit. Psychol.* **2016**, *7*, 390–397. [CrossRef]
132. Zhang, A.; Zhang, Q. How could mindfulness-based intervention reduce aggression in adolescent? Mindfulness, emotion dysregulation and self-control as mediators. *Curr. Psychol.* **2021**, 1–15. [CrossRef]
133. Bluth, K.; Lathren, C.; Clepper-Faith, M.; Larson, L.M.; Ogunbamowo, D.O.; Pflum, S. Improving Mental Health Among Transgender Adolescents: Implementing Mindful Self-Compassion for Teens. *J. Adolesc. Res.* **2021**. [CrossRef]
134. Bower, G.H. Mood and memory. *Am. Psychol.* **1981**, *36*, 129–148. [CrossRef]
135. Gasper, K.; Spencer, L.A.; Hu, D. Does Neutral Affect Exist? How Challenging Three Beliefs About Neutral Affect Can Advance Affective Research. *Front. Psychol.* **2019**, *10*, 2476. [CrossRef]
136. Chartrand, T.L.; van Baaren, R.B.; Bargh, J.A. Linking automatic evaluation to mood and information processing style: Consequences for experienced affect, impression formation, and stereotyping. *J. Exp. Psychol. Gen.* **2006**, *135*, 70–77. [CrossRef]
137. Wilson, T.D.; Gilbert, D.T. Explaining Away: A Model of Affective Adaptation. *Perspect. Psychol. Sci.* **2008**, *3*, 370–386. [CrossRef]
138. *Handbook of Mindfulness and Self-Regulation*; Ostafin, B.D.; Robinson, M.D.; Meier, B.P. (Eds.) Springer Science + Business Media: New York, NY, USA, 2015; pp. 1–6. [CrossRef]
139. Kirkland, R.; Peterson, E.; Baker, C.; Miller, S.; Pulos, S. Meta-analysis reveals adult female superiority in 'Reading the Mind in the Eyes Test'. *N. Am. J. Psychol.* **2013**, *15*, 449–458.
140. Kalin, N.H. Prefrontal Cortical and Limbic Circuit Alterations in Psychopathology. *Am. J. Psychiatry* **2019**, *176*, 971–973. [CrossRef]

141. Peters, S.; Jolles, D.J.; Van Duijvenvoorde, A.C.; Crone, E.A.; Peper, J.S. The link between testosterone and amygdala–orbitofrontal cortex connectivity in adolescent alcohol use. *Psychoneuroendocrinology* **2015**, *53*, 117–126. [CrossRef]
142. Yip, J.T.H.; Leung, K.-K.; Li, L.S.; Lee, T.M.C. The role of sub-cortical brain structures in emotion recognition. *Brain Inj.* **2004**, *18*, 1209–1217. [CrossRef]
143. Zahn-Waxler, C.; Shirtcliff, E.A.; Marceau, K. Disorders of Childhood and Adolescence: Gender and Psychopathology. *Annu. Rev. Clin. Psychol.* **2008**, *4*, 275–303. [CrossRef]
144. Baron-Cohen, S.; O'Riordan, M.; Stone, V.; Jones, R.; Plaisted, K. Recognition of Faux Pas by Normally Developing Children and Children with Asperger Syndrome or High-Functioning Autism. *J. Autism Dev. Disord.* **1999**, *29*, 407–418. [CrossRef] [PubMed]
145. Schore, A.N. All Our Sons: The Developmental Neurobiology and Neuroendocrinology of Boys at Risk. *Infant Ment. Health J.* **2017**, *38*, 15–52. [CrossRef] [PubMed]
146. Neff, K.D.; Pommier, E. The Relationship between Self-compassion and Other-focused Concern among College Undergraduates, Community Adults, and Practicing Meditators. *Self Identity* **2013**, *12*, 160–176. [CrossRef]
147. Yarnell, L.M.; Neff, K.D.; Davidson, O.A.; Mullarkey, M. Gender Differences in Self-Compassion: Examining the Role of Gender Role Orientation. *Mindfulness* **2018**, *10*, 1136–1152. [CrossRef]
148. Altemus, M.; Sarvaiya, N.; Epperson, C.N. Sex differences in anxiety and depression clinical perspectives. *Front. Neuroendocr.* **2014**, *35*, 320–330. [CrossRef]
149. Petersen, I.T.; Lindhiem, O.; LeBeau, B.; Bates, J.E.; Pettit, G.S.; Lansford, J.E.; Dodge, K.A. Development of internalizing problems from adolescence to emerging adulthood: Accounting for heterotypic continuity with vertical scaling. *Dev. Psychol.* **2018**, *54*, 586–599. [CrossRef]
150. Hagborg, W.J. Gender Differences on Harter's Self-Perception Profile for Adolescents. *J. Soc. Behav. Personal.* **1993**, *8*, 141–148.
151. Muris, P.; Meesters, C.; Fijen, P. The Self-Perception Profile for Children: Further evidence for its factor structure, reliability, and validity. *Pers. Individ. Differ.* **2003**, *35*, 1791–1802. [CrossRef]
152. Van den Bergh, B.R.H.; Van Ranst, N. Self-Concept in Children: Equivalence of Measurement and Structure Across Gender and Grade of Harter's Self-Perception Profile for Children. *J. Pers. Assess.* **1998**, *70*, 564–582. [CrossRef]
153. Van Dongen-Melman, J.E.W.M.; Koot, H.M.; Verhulst, F.C. Cross-Cultural Validation of Harter'S Self-Perception Profile for Children in a Dutch Sample. *Educ. Psychol. Meas.* **1993**, *53*, 739–753. [CrossRef]
154. Alarcón, G.; Forbes, E.E. Prosocial Behavior and Depression: A Case for Developmental Gender Differences. *Curr. Behav. Neurosci. Rep.* **2017**, *4*, 117–127. [CrossRef]
155. Fabes, R.A.; Carlo, G.; Kupanoff, K.; Laible, D. Early Adolescence and Prosocial/Moral Behavior I: The Role of Individual Processes. *J. Early Adolesc.* **1999**, *19*, 5–16. [CrossRef]
156. Piquero, A.R.; Jennings, W.G.; Farrington, D.P.; Diamond, B.; Gonzalez, J.M.R. A meta-analysis update on the effectiveness of early self-control improvement programs to improve self-control and reduce delinquency. *J. Exp. Criminol.* **2016**, *12*, 249–264. [CrossRef]
157. Mackintosh, K.; Power, K.; Schwannauer, M.; Chan, S.W.Y. The Relationships Between Self-Compassion, Attachment and Interpersonal Problems in Clinical Patients with Mixed Anxiety and Depression and Emotional Distress. *Mindfulness* **2017**, *9*, 961–971. [CrossRef]
158. Quesque, F.; Rossetti, Y. What Do Theory-of-Mind Tasks Actually Measure? Theory and Practice. *Perspect. Psychol. Sci.* **2020**, *15*, 384–396. [CrossRef]