Parental Digital Mediation According to the Age of Minors: From Restraint and Control to Active Mediation

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Abstract: Research shows that parental mediation is essential for the introduction of minors into the digital environment and their development therein as well as to reduce their exposure to online risks. The present study examines parental strategies depending on whether minors are (dis)connected to the Internet and whether they differ according to their age. The motivations for minors to connect are also examined in relation to the frequency to which they connect to the Internet (activities related to school or learning, interacting with friends, and being entertained). The sample consists of 776 Spanish families with minors aged 5–17. Results show that parental mediation depends on the age of the minor, parental mediation strategies are more restrictive when minors are younger, and as their age increases strategies become more dialogue and collaboration oriented. In adolescence, parents mainly control internet purchases, yet they become more flexible with minors’ presence on social networks. The conclusions reveal that parental mediation is in the process of evolving from a restrictive approach to one that is more empathetic. The change in mediation is due to a greater awareness of the relevance of proper use of the Internet for the well-being of their children.

Keywords: social networks; parental mediation; minors; children; motivations

1. Introduction

Due to the level of importance that the use of the Internet has reached in life development during childhood and adolescence (López-de-Ayala et al. 2021; Suárez-Álvarez and García-Jiménez 2021), the risks faced when they connect to the Internet are being increasingly studied by scholars (Díaz-Vicario et al. 2019; Deslandes and Coutinho 2020; Longobardi et al. 2020; García-Jiménez et al. 2022). In addition, parental mediation has become a major object of study (Bartau-Rojas et al. 2018; Dedkova and Smahel 2020; Inkeles 2017; Lippold et al. 2022; Nikken 2017; Peled 2018; Sciacca et al. 2021; Steinfeld 2021; Suárez-Álvarez et al. 2020; Symons et al. 2017; Zaman and Mifsud 2017).

Previous research related to parental mediation contribute to clarify parents’ behavior towards their children’s (dis)connection to the Internet. Livingstone and Helsper (2008) established three types of mediation strategies: (1) active mediation involves engaging minors in dialogue about the content they are watching, (2) restrictive mediation involves rules that set time limits, location, and content, and (3) co-use is a measure in which parents remain present and share the experience but do not comment on the content or its effects. In addition, Garmendia et al. (2016) placed Internet mediation into three categories: (1) active mediation focuses on supervision, accompaniment, and guidance, (2) restrictive mediation is based on the establishment of rules and limits, but it must be adapted according to the age and maturity of the minor, and (3) technical mediation consists of monitoring digital devices. Livingstone et al. (2017) updated those findings and they suggested two typologies: (1) restrictive mediation based on strong supervision of what minors are allowed to see on the Internet, which might end up undermining dialogue between parents
and their children and a loss of parents’ ability to guide their children while they are on the Internet, and (2) enabling mediation, which combines a contribution to making minors manage by themselves the most of ICT (Information and Communication Technology) with an attempt to minimize risk. Likewise, Torrecillas-Lacave et al. (2017) enlarged the kinds of models of parental mediation and defined four family models: (1) worried and absent (parents are aware of the superiority of their children’s knowledge of the Internet), (2) concerned counsellors (parents guide and engage in dialogue with their children and are present when they use social networks), (3) carefree permissive parents, who do not believe that the use and consumption of ICT has any influence on their children nor that the Internet is important for their development, (4) carefree controllers, who consider ICT important in all aspects of their children’s lives and establish control measures such as limiting consumption time, knowing what their children are doing on the Internet, and being aware of what they post.

However, age-specific mediation strategies have received much less study. Álvarez-García et al. (2019) pointed out that adolescents perceive the degree of mediation to be scant. These researchers also stated that both restrictive and supervisory actions decrease as minors grow older. Regarding parents’ perspective, Sorbring (2014) confirms this trend in their study based on parents with minors between 13 and 15 years of age, and states that parents’ concerns vary according to the age and gender of the child and that parents with a greater understanding of negative Internet experiences are the most concerned. In their research on families with minors in primary school, Bartau-Rojas et al. (2018, p. 77) state that parental strategies focus on support and control in order to teach minors the advantages and risks they may encounter while browsing, “although their choices and combinations depend on some of their own personal characteristics such as age and maturity”. According to Yubero et al. (2018, p. 8), whose research is based on families with minors between 12 and 17 years of age, they confirm that “as the age of the child increases” parents’ concerns about the negative aspects of the Internet are reduced and that families combine both active and restrictive mediation strategies. Moreover, parents who connect regularly to the Internet choose active mediation tactics without significant gender differences. Caivano et al. (2020, p. 12), whose investigation is based on parents with minors between 8 and 16 years of age, contradict these findings, suggesting that restrictive mediation was found to be the most effective for parents’ awareness about cyberbullying experiences and they also point out that “restrictive mediation was more effective for parental awareness of bystander experiences in adolescents”.

This parental mediation relates to minors’ motivations to use the Internet. The Internet has become indispensable for minors (Lin 2021). In some cases, they claim that they cannot live without the Internet (O’Reilly et al. 2018). Minors’ main motivations for Internet use and consumption are having fun, socialisation, and self-expression (Bossen and Kottasz 2020; Festl 2021; Morgan 2020; Thompson et al. 2019; Throuvala et al. 2019), as well as engagement with issues of public interest (Boyd 2014) and building their identity (Huang et al. 2021). Del Prete and Redon (2020) add the need of belonging to a group and social acceptance. These motivations are considered as dynamics generated in network socialization that allow them to self-define and actively participate with their peers (Décieux et al. 2019).

2. Research Objectives and Questions

This bibliographic review verifies the need for parental mediation to introduce minors to the Internet, from their childhood to adulthood. The aim of this research is to conduct an analysis of the mediation strategies used by parents related to their children’s (dis)connection to the Internet and to investigate whether there are significant differences in these mediation strategies depending on the age of the minors. Based on the previous literature, the research questions are:

Q1. As minors grow older, does parental guardianship of the use of the Internet ease?
Q2. Linked to the previous question: are parents’ and guardians’ active mediation actions and follow-up controls influenced by the age of the minors?
From a descriptive approach, this study addresses the extent of minors’ self-access to the Internet (executed actions with previous authorization), the purpose of such access (the reasons why they connect), active mediation strategies, and further controls related to the age of the minors.

3. Materials and Methods

3.1. Participants

A total of 776 correctly filled-in questionnaires were obtained from individuals (father, mother, and guardians) with responsibility for minors aged from 5 to 17. Amongst those surveyed, 533 were women and 213 were men. A multistage stratified sampling by conglomerates was carried out involving schools in the City of Madrid (Spain). The official website of the Ministry of Education of the Autonomous Region of Madrid was used to define the categories of the educational centers included in the study: educational stage (preschool/primary/secondary education), type of educational center (public, private, or semi-private schools), and socio-economic level of the area in which the educational center was located. By simple random sampling, one educational center per stratum was selected with a total of eight schools: three semi-private and five public, with voluntary participation of the minors’ parents in these educational centers.

3.2. Procedure

In order to address this issue, a quantitative methodology was used through a questionnaire, which is considered the most appropriate technique as it allows to obtain knowledge regarding the mediation strategies developed by parents taking into account the age of minors (from 5 to 17). To this end, a questionnaire was developed for parents and guardians of minors attending educational centers in the city of Madrid. Questionnaires were delivered via an online format to facilitate the participation of the sampling units so that each individual, by clicking on a link, could reply to the enquiries in the questionnaire.

Statistical data analysis was performed by using Statistical Package for the Social Sciences software version 24 (IBM SPSS Statistics V24, Armonk, New York). Data processing was carried out by descriptive analyses, Chi-Square test was used for the relationship between variables, and Cramer’s V was used as measure of association. The methods used to analyze the results of the questionnaires were first an inductive approach, followed by a deductive approach.

3.3. Measure

The dimensions of analysis evaluated can be observed in the questions included in the questionnaire (Table 1).

Table 1. Aspects evaluated in relation to parenting mediation strategies.

<table>
<thead>
<tr>
<th>Dimensions of Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Control over access</td>
</tr>
<tr>
<td>Your child’s use of the Internet at home requires permission from:</td>
</tr>
<tr>
<td>i. Parents</td>
</tr>
<tr>
<td>ii. Guardian</td>
</tr>
<tr>
<td>iii. Older sibling</td>
</tr>
<tr>
<td>iv. Others</td>
</tr>
<tr>
<td>v. Unrestricted access</td>
</tr>
<tr>
<td>Indicate whether your child is allowed to do each of the following things on the Internet and, if so, whether he/she can do them alone, with your permission, and with your supervision:</td>
</tr>
<tr>
<td>i. Use messaging software</td>
</tr>
</tbody>
</table>
Table 1. Cont.

**Dimensions of Analysis**

**Use the Internet**
- ii. Watch videos on the Internet
- iii. Have a profile on a social network
- iv. Download music or films
- v. Upload photos
- vi. Music or videos for sharing
- vii. Shop online
- viii. Install web applications

**2. Motivation for going online**
How often does your child go online (never, occasionally, daily, or several times a day)?
- i. Do school or learning-related activities
- ii. Keep in touch with friends
- iii. Entertain themselves
- iv. Do something else

**3. Actions of active mediation**
Indicate if you do, or have done, any of these things with your child on the Internet, explaining that some websites are good and some are not:
- i. Explaining how to use the Internet safely
- ii. Supervising without actively participating
- iii. Suggesting how to behave on the Internet
- iv. Guiding children in unpleasant situations on the Internet
- v. Sharing passwords on the Internet

**4. Post-parental control**
When your child uses the Internet, do you check any of the following?
- i. The history of websites visited
- ii. The composition of WhatsApp groups
- iii. The friends they have added
- iv. The contents of their profile
- v. The messages they have received
- vi. The files they have downloaded.

**4. Results**

**4.1. Control over Internet Access**

Parents were asked whether their children should request permission to connect to the Internet and who should have the authority to make the decision. This control of access is proving to be one of the main strategies of parental mediation as three quarters of minors (74%) needed to ask for permission in order to connect to the Internet compared with a quarter (26%), who can access freely. Of the 74% who must ask for consent, 66% have to ask their parents, 6% must ask the person who cares for them, 1% have to make the request to older siblings, and another 1% have to ask other people in charge of them.

Access control shows a positive association with age as evidenced by the statistical contrast performed \( \chi^2 = 218.27 \), \( df = 5 \), \( p < 0.001 \), Cramer’s \( V = 0.540 \), \( p < 0.001 \). This question is focused on minors who have to ask for permission before connecting. As minors grow older, their parents exercise less control over their access to the Internet. Looking at the results by age, it can be seen that 94% of the minors in the third year of preschool (4–5 years old) cannot connect without parental permission, the percentage of minors in years 2 and 3 of primary school drops to 89%, and again is reduced in the case of minors in years 4 and 5 of primary school (79%). The percentage continues to drop as parents of older minors are surveyed. With the onset of secondary school, when minors are 12 years old and attend years 7 and 8 of secondary school, 62% cannot connect without the permission of an adult. In years 9 and 10 of secondary school it drops significantly to 40% and when they attend years 11 and 12 of secondary school, at 16–17 years of age, only 25% of minors have to
ask for permission to connect. Therefore, the older the minors become the less they are controlled on their access to the Internet (see Figure 1).

Figure 1. Parents who allow access to the Internet only with explicit permission.

In the next step of our analysis, we investigated the types of activities in which parents allow their children to participate. To do this, parents were asked to indicate which activities their children are allowed to do by themselves, those that require permission, and those that must be carried out with adult supervision.

Activities that minors are allowed to do with or without permission:

- **Use of instant messaging programs** (e.g., Messenger, WhatsApp, Snapchat, Telegram, etc.). An evolution in parents’ mediation strategies is observed. Parents allow their children to use these types of programs with greater freedom and flexibility as children grow older. When they are smaller, nearly all minors are forbidden to use these programs yet when they reach Years 11 and 12 of upper secondary school, most are allowed to use them without supervision. The comparison shows statistically significant differences (Pearson’s Chi Square = 341.944, df = 6 p < 0.001). The association between the educational stage and the type of permission is evident (Cramer’s V = 0.477 p < 0.001). Differences occur at the preschool and primary school levels, where the percentage of families who do not authorize instant messaging use is significantly higher, while at the secondary and upper secondary school levels the percentage of families that allow their children to use these programs without supervision is significantly higher.

- **Watching video clips on the Internet** (on channels such as YouTube). This action is widely accepted by the majority of parents from the minors’ early ages. The younger minors watch these videos with supervision and as they grow older parents give them more freedom to see this type of virtual content with a strong relationship between the type of permission given and the age of the minors (Chi-Square = 99.99 df = 6 p < 0.001, Cramer’s V = 0.258 p < 0.001). In the pre-school and primary stages, the percentage of families who authorize watching video clips on the Internet with supervision is higher, while in the later stages of secondary and upper secondary school a significantly lower percentage of parents supervise the viewing and a higher percentage authorize them to do so independently.

- **Browsing the Internet.** When minors enter primary school, more than 80% of parents allow their children to surf the Internet either alone or with supervision. The percentage of parents who do not authorize Internet browsing is significantly higher only at the pre-school level. When minors move to the next educational stage, the percentage of parents who give consent increases, but with supervision. Finally, in the later years of secondary and upper secondary school, the practice is widespread and
occurs without direct supervision ($\chi^2 = 228.24$ df = 6 $p < 0.001$, Cramer’s $V = 0.390$ $p < 0.001$).

- Having your own profile on a social network (Twitter, Facebook, Instagram, etc.). Parents are mainly reluctant to give permission to their children to have their own profile on a social network; this is only allowed by 26.1% of families. The authorization also varies according to age ($\chi^2 = 321.462$ df = 6 $p < 0.001$, Cramer’s $V = 0.463$ $p < 0.001$). In preschool and primary school almost none of the parents allow their children to use this type of online service. These differences are statistically important with regard to the total. In secondary and upper secondary school, the percentage of authorization with supervision rises.

Finally, unsupervised access, which is also greater in secondary and upper secondary stages, particularly increases in years 11 and 12 of upper secondary school as the figure rises to 66% of those who choose to study at this level.

- Downloading music or movies. The possibility of obtaining permission to download songs or movies is another activity that is likely to be allowed according to age ($\chi^2 = 267.238$ df = 6 $p < 0.001$, Cramer’s $V = 0.422$ $p < 0.001$). In the preschool and primary stages, a significant percentage of families do not allow their children to engage in this activity, but as they grow older parents allow them to access this audio-visual content on their own, especially in the secondary and upper secondary stages.

- Shopping online. Buying products and services via the Internet (e-commerce) is a yearly increasing activity as confirmed by data published by the National Commission on Markets and Competition (NCMC 2021). However, this increase is mainly related to purchases made by adults since the freedom for minors to buy online is heavily monitored. Internet shopping is the activity that is most strongly limited by parents with minors of all ages (52.8%); however, permission is correlated to the educational stage of the minors ($\chi^2 = 53.757$ df = 6 $p < 0.001$, Cramer’s $V = 0.189$ $p < 0.001$). Until minors reach years 11 and 12 of upper secondary school, 82.5% of them are not allowed to shop online and even at this stage 68% are not allowed to do so.

4.2. Motivation for Connecting

Three scenarios are considered in relation to the frequency with which minors connect to the Internet: to carry out activities related to school or learning, to be in contact with their friends, and for entertainment. In all three cases, the following assumption can be observed: the older the minors the more they use the Internet, with statistically significant differences between the three age groups. Educational use is the main reason for connecting on a daily basis for almost half of the interviewees (48.5%) or occasionally (44.5%). As can be seen in Table 1, the educational stage reflects the frequency with which this occurs. In the preschool and primary stages, this situation usually occurs on an occasional basis, while in secondary and upper secondary school it occurs more on a daily basis.

Social interaction motivates occasional connection in 44.5% of the cases and daily connection in 41% of the total sample. However, the age of the minors has a statistically significant effect on the frequency of access. The majority of preschool minors do not have access to the Internet for this reason (83.3%) nor do 45.1% of primary school pupils. It has been observed that in primary school, occasional access by pupils occurs more frequently than with the rest of the students, while in secondary and upper secondary school most are connected on a daily basis (see Table 2).
Table 2. Reasons for connecting and frequency of connection by educational stage.

<table>
<thead>
<tr>
<th>How Often Your Child Connects to Do School Tasks or to Do Activities Pertaining to Learning</th>
<th>Childhood Education</th>
<th>Primary Education</th>
<th>Secondary School</th>
<th>Upper Secondary School</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>23.3%</td>
<td>3.4%</td>
<td>1.2%</td>
<td>0.9%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>61.7%</td>
<td>50.5%</td>
<td>34.6%</td>
<td>27.8%</td>
<td>44.5%</td>
</tr>
<tr>
<td>Once or several times a day</td>
<td>15.0%</td>
<td>46.1%</td>
<td>64.2%</td>
<td>71.3%</td>
<td>48.5%</td>
</tr>
<tr>
<td><strong>Pearson’s Chi-Square = 182.098, df = 6 (p-value &lt; 0.001)</strong></td>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Keep in touch with friends</th>
<th>Childhood Education</th>
<th>Primary Education</th>
<th>Secondary School</th>
<th>Upper Secondary School</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>83.3%</td>
<td>45.1%</td>
<td>5.8%</td>
<td>0.0%</td>
<td>34.3%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>12.2%</td>
<td>39.2%</td>
<td>26.5%</td>
<td>13.9%</td>
<td>44.5%</td>
</tr>
<tr>
<td>Once or several times a day</td>
<td>4.4%</td>
<td>15.7%</td>
<td>67.7%</td>
<td>86.1%</td>
<td>41.0%</td>
</tr>
<tr>
<td><strong>Pearson’s Chi-Square = 453.399, df = 6 (p-value &lt; 0.001)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Entertainment</th>
<th>Childhood Education</th>
<th>Primary Education</th>
<th>Secondary School</th>
<th>Upper Secondary School</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>10.6%</td>
<td>7.8%</td>
<td>5.1%</td>
<td>0.0%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>66.7%</td>
<td>58.8%</td>
<td>37.0%</td>
<td>36.1%</td>
<td>49.9%</td>
</tr>
<tr>
<td>Once or several times a day</td>
<td>22.8%</td>
<td>33.3%</td>
<td>58.0%</td>
<td>63.9%</td>
<td>43.7%</td>
</tr>
<tr>
<td><strong>Pearson’s Chi-Square = 84.399, df = 6 (p-value &lt; 0.001)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do something else</th>
<th>Childhood Education</th>
<th>Primary Education</th>
<th>Secondary School</th>
<th>Upper Secondary School</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>65.5%</td>
<td>49.3%</td>
<td>33.7%</td>
<td>34.3%</td>
<td>45.6%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>28.2%</td>
<td>35.0%</td>
<td>34.3%</td>
<td>29.6%</td>
<td>32.4%</td>
</tr>
<tr>
<td>Once or several times a day</td>
<td>6.2%</td>
<td>15.8%</td>
<td>31.8%</td>
<td>36.1%</td>
<td>21.9%</td>
</tr>
<tr>
<td><strong>Pearson’s Chi-Square = 84.399, df = 6 (p-value &lt; 0.001)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data in bold indicates that the percentage in the square is greater than expected at a significance level (p-value) of 0.001. Underlined data indicates that the percentage in the square is less than expected at a significance level (p-value) of 0.001. A p-value less than 0.001 indicates that the analysis result is statistically significant.

The use of the Internet for online entertainment is sporadic for half of the families (49.9%) or each day for four in ten (43.7%). However, data related to the use of the Internet for entertainment purposes, according to educational stage, shows that preschool and primary school minors do so mostly on an occasional basis. Contrarily, among secondary and upper secondary school students, this kind of activity predominates on a daily basis.

4.3. Active Mediation Strategies

Once the restrictive control strategies and the motivation for access had been analyzed, the active mediation strategies that parents develop regarding orientation and accompaniment of their children while they are connected were studied. They were asked a number of questions focused on the actions they take with their children, as shown in Table 1, point 6.

Most families report a high level of involvement in active mediation strategies. The most prevalent action is explaining to minors that there are websites that are good and others that are not (84%), followed by guiding minors in unpleasant situations on the Internet (69% of parents), while sharing of passwords is the only action with a lower rate of incidence. The figure does not reach 28.5% of those surveyed.

As in previous sections, initiatives vary according to the minors’ ages. This is statistically significant, as shown in Table 3. In the preschool and primary stages, a higher percentage of families report supervision without active participation (80% in the two age groups). In contrast, the other actions are undertaken less frequently at these two stages of education. Explaining how to use the Internet safely is carried out by only 55% of families with minors in preschool and suggesting how to behave correctly is performed by just 34.4% of parents with minors at this same educational stage. In the primary education phase, the
frequency with which families participate in these two actions increases, reaching 79.5% and 71.2%, respectively (see Table 3).

Table 3. Active mediation measures by educational stage.

<table>
<thead>
<tr>
<th>Active Mediation Strategies</th>
<th>Childhood Education</th>
<th>Primary Education</th>
<th>Secondary School</th>
<th>Upper Secondary School</th>
<th>Total</th>
<th>Chi-Square</th>
<th>d.f. = 3</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explain which web pages are good or not</td>
<td>66.1</td>
<td>85.9</td>
<td>91.4</td>
<td>92.6</td>
<td>84.0</td>
<td>59.9</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Explain how to use the Internet safely</td>
<td>55.0</td>
<td>79.5</td>
<td>85.2</td>
<td>85.2</td>
<td>76.4</td>
<td>62.51</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Supervise without any active participation</td>
<td>80.6</td>
<td>80.5</td>
<td>63.4</td>
<td>58.3</td>
<td>71.5</td>
<td>32.76</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Suggest how to behave on the Internet</td>
<td>34.4</td>
<td>71.2</td>
<td>85.6</td>
<td>77.8</td>
<td>68.3</td>
<td>136.04</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Guide minors in unpleasant situations on the Internet</td>
<td>45.6</td>
<td>67.3</td>
<td>84.4</td>
<td>74.1</td>
<td>68.9</td>
<td>79.15</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>Share Internet passwords</td>
<td>10.6</td>
<td>24.9</td>
<td>38.9</td>
<td>40.7</td>
<td>28.5</td>
<td>51.33</td>
<td>&lt;0.001</td>
<td></td>
</tr>
</tbody>
</table>

Data in bold indicates that the percentage in the square is greater than expected at a significance level (p-value) of 0.001. Underlined data indicates that the percentage in the square is less than expected at a significance level (p-value) of 0.001. A p-value less than 0.001 indicates that the analysis result is statistically significant.

The secondary and upper secondary are the stages in which parents are more active in mediation strategies, both in terms of safety as well as in the prevention of conflicts and unpleasant situations. Finally, sharing Internet passwords is one of the least common safeguards practiced within families. Less than a third of respondents know the passwords of their children. It would seem logical that passwords might not exist until minors have their own profiles, but even in the secondary and upper secondary stages, this strategy is only utilized in around 40% of the cases.

4.4. Posterior Parental Control

When minors finish a session using the Internet, parents can conduct some post-control tasks such as inspecting or checking the record of web pages visited, checking WhatsApp groups, monitoring friends added, monitoring the content of social network profiles, and monitoring files downloaded. It is observed that an average of just over half of the parents perform one or more of these tasks. Overall, controls are lower in the early stages of education, they increase during primary and secondary school, and they descend again in upper secondary school. Checking the record of websites visited is a control technique that is most frequently used in the primary school stage. Checking the members of WhatsApp groups occurs more frequently during primary and secondary school in comparison with the preschool years, at which time minors still do not have access to this application. In upper secondary school, other types of controls are used. Something similar occurs with friends added and the content of profiles. In the preschool stage, control measures are followed to a lesser extent than in primary and secondary school. Messages received and files downloaded are more controlled in the primary school stage in contrast to the decrease of this type of control in the upper secondary phase (see Table 4).

Table 4. Posterior parental control by educational phase.

<table>
<thead>
<tr>
<th>When Your Child Connects to the Internet, You Check</th>
<th>Childhood Education</th>
<th>Primary Education</th>
<th>Secondary School</th>
<th>Upper Secondary School</th>
<th>Total</th>
<th>Chi-Square</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of visited pages</td>
<td>48.9%</td>
<td>63.9%</td>
<td>53.7%</td>
<td>48.1%</td>
<td>54.5%</td>
<td>14.41</td>
<td>&lt;0.010</td>
</tr>
<tr>
<td>Membership of WhatsApp groups</td>
<td>40.0%</td>
<td>59.0%</td>
<td>51.0%</td>
<td>20.4%</td>
<td>46.1%</td>
<td>47.70</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Friends added</td>
<td>41.1%</td>
<td>65.4%</td>
<td>57.6%</td>
<td>33.3%</td>
<td>52.3%</td>
<td>41.51</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Content of profiles</td>
<td>43.3%</td>
<td>61.5%</td>
<td>63.0%</td>
<td>47.2%</td>
<td>55.6%</td>
<td>25.62</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Messages received</td>
<td>37.2%</td>
<td>58.5%</td>
<td>39.3%</td>
<td>15.7%</td>
<td>40.7%</td>
<td>56.02</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Files downloaded</td>
<td>52.8%</td>
<td>61.5%</td>
<td>43.2%</td>
<td>28.7%</td>
<td>48.4%</td>
<td>34.95</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Data in bold indicates that the percentage in the square is greater than expected at a significance level (p-value) of 0.001. Underlined data indicates that the percentage in the square is less than expected at a significance level (p-value) of 0.001. A p-value less than 0.001 indicates that the analysis result is statistically significant.
5. Conclusions and Discussion

The parents surveyed in this research showed high percentages of parental mediation in the different types of risk their children may face when they connect to the Internet. A pattern of parental behavior was verified: as minors grow older there is less control over access, corroborating the findings of Álvarez-García et al. (2019), but a higher level of active mediation with posterior control. Parents of preschool minors set restrictive mediation strategies based on connection time and rules for connecting. Once a selection of the channels to which minors are allowed to connect is made, parents do not give them suggestions of behavior (only 31% do so) nor do they guide their children when facing risky situations they may encounter while browsing (47%). This may result from parents who consider their children too young to address these issues or from parents who trust in the online content chosen by their children or by themselves in previously selected child-specific television channels or apps. During the primary education stage, mediation continues to be restrictive, based mainly on prohibition and the establishment of rules for connection times or on the content that minors watch. These findings contradict the conclusions of Bartau-Rojas et al. (2018) that assess that parents opt for a more dialogic mediation at this age.

When minors reach pre-adolescence and adolescence, they begin to use the Internet massively (National Statistics Institute 2020, 2021). This phase coincides with the beginning of the secondary school years. Access to the Internet in this period is due to both academic and social reasons (Bossen and Kottasz 2020; Festl 2021; Morgan 2020) and it changes from occasional to daily use. This is when 80% of parents choose active mediation strategies. They become more communicative and closer to their children. They try to explain to their children the situations they might encounter on the Internet and how they can manage or resolve them. They tell them which pages are good and which are not and how they can use the Internet safely. Moreover, parents monitor how their children use the Internet and inform them about the potential risks of social networks. It is during this phase when posterior control occurs more frequently. In the next educational stage, when minors reach the upper secondary school level, the attitude of parents changes once again. When minors are around 16 years old, parents lower their level of mediation despite the high vulnerability of girls on social networks such as YouTube (García-Jiménez et al. 2022). Parents continue to exercise active mediation and dialogue, but they reduce their intervention and they do not advocate the restrictive mediation mentioned by Caivano et al. (2020). This decrease in parental involvement might be due to three main causes: (1) they believe their children have greater digital competency as they grow older, (2) they are not aware of the relevance of this period in the growth of minors, and (3) when minors reach adolescence, they demand greater freedom and trust from their parents. Consequently, parents find themselves at a crossroads, where they try to control what their children do online while they face the demand for greater autonomy from their adolescent children.

This active mediation seems to diminish when it comes to reviewing what their children have done online and only half of the parents worry about checking the record of websites visited, scrutinizing members of WhatsApp groups, examining the contents of their profile on social networks, or examining the messages or files they have received and sent. Parents do not know which pages they have visited, the people with whom they have had conversations, and whether they were appropriate or not. Parental mediation is undergoing a progressive development away from being more restrictive to being more communicative and concerned, and they are gaining greater awareness of the importance of the Internet and its possible effects on minors. However, there is still a long way to go. It has been observed that parents demonstrate very close control with certain actions such as making purchases through the Internet, possibly for fear of the consequences. In contrast, parental supervision is laxer in allowing minors the autonomy to create profiles on social network platforms at the start of adolescence.

One of the main contributions of this research is the study of parental control evolution of parents and guardians in the complex online framework in which minors grow up. The
size of the used sample is vital to obtain deeper knowledge regarding parental strategies and minors’ potential exposure to online risks and motivations to connect to the Internet.

6. Limitations of the Study

Data collection was conducted online in a specific period and geographical area; therefore, the generalization of the findings is difficult to establish. Although the study details the mediation actions carried out by parents or guardians, family cohabitation is not addressed, which makes it difficult to know whether the strategies are shared or whether they depend on the respondent’s gender or on any other feature. Nevertheless, this study contributes to the investigation of the most current trends in parents’ and guardians’ mediation strategies and how they are implemented depending on the age of the minors.

7. Future Research

For future lines of research, it will be useful to discover whether the new generations of parents increase their digital literacy and whether this concludes with the combination of both types of mediation (active and restrictive) that will help young people to self-regulate and manage online risks. Therefore, expanding the sample and including other regions of the world is recommended. It is necessary to carry out studies that identify changes in trends and that analyze the parents’ role in parental mediation based on the age and gender of minors.


Funding: This research is part of the project entitled “New scenarios of digital vulnerability: media literacy for an inclusive society” (PROVULDIG-2-CM) (ref. H2019/HUM5775), the Autonomous Region of Madrid (CAM) and the European Social Fund (1 January 2020–31 December 2022) and the R & D & I project PID 2019-104689RB100 entitled “INTERNETIC® Truth and ethics in social networks. Perceptions and educational influences in young users of Twitter, Instagram and YouTube”.


Informed Consent Statement: Prior informed consent procedure was not necessary. All participants in the questionnaire are parents or guardians of legal age and they participated on a voluntary basis. No written consent has been obtained from research participants to publish this paper for the data has been completely anonymized. Participants had the right to withdraw their consent at any time without any consequences, without affecting the lawfulness of the processing.

Data Availability Statement: The data presented in this study are available upon request from the authors.

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

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