FAMILY COMMUNICATION AND PARENTAL RULES REGULATING THE USE OF MOBILE DEVICES BY MINORS

Comunicación familiar y normas parentales que regulan el uso de dispositivos móviles en menores

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	ABSTRACT
Keywords: Families, minors, rules, mobile phones, communication	Screens often block or interfere with interpersonal and family communication. In this regard, adults play a crucial role in promoting the responsible use of technology. This study provides an analysis of the families' rules impose on their children aged 3 to 12 to regulate mobile phone use at home, as well as explores their perceptions of the consequences of taking *smartphones* away from their children and how *smartphone* use influences children's socialization, behavior, and academic performance. A quantitative study with a non-experimental design was conducted using a survey method and convenience sampling. The respondents were 1.694 families from the city of Lugo (Spain). The results indicate that *smartphones* are the most used device by both parents and children, and that 8 out of 10 families set rules for their children to regulate mobile phone use, including prohibitions on using them during meals or at bedtime. Furthermore, half of the families in Lugo believe that mobile phone use does not affect socialization, academic performance, or behavioral changes in children, and 1 out of 10 are unaware of the potential effects. Overall, these findings highlight that parental accompaniment, supervision, and the reduction of time spent on mobile devices are key aspects for enhancing family communication.

RESUMEN

A menudo las pantallas bloquean o interfieren en la comunicación interpersonal y familiar. En este sentido, los adultos desempeñan un papel importante en el fomento del uso responsable de la tecnología. Este estudio presenta un análisis de las normas que las familias imponen a sus hijos/as de 3 a 12 años para regular el uso del móvil dentro del hogar y examina la percepción que tienen de las consecuencias de retirar los *smartphones* a sus hijos/as y de cómo influye su uso en la socialización, conductas y rendimiento académico de los menores. Se utilizó un enfoque cuantitativo con un diseño no experimental basado en el método de encuesta en el que se empleó un muestreo por conveniencia. Los/as encuestados fueron 1.694 familias de la ciudad de Lugo (España). Los resultados apuntan a que el *smartphone* es el dispositivo más utilizado tanto en progenitores como en hijos/as, que 8 de cada 10 familias pone normas a sus hijos/as para regular el uso del móvil, entre ellas la prohibición de usar el móvil durante la comida o a la hora de dormir. Además, la mitad de las familias lucenses piensan que el uso del móvil no repercute en la socialización, en el rendimiento o en los cambios de conducta de los menores y 1 de cada 10 desconoce los posibles efectos que puedan tener. El acompañamiento, la supervisión y reducir el número de horas de uso de dispositivos móviles son aspectos claves para mejorar la comunicación familiar.

Introduction

The family is the first agent of socialization, where children learn norms, values, customs, language, beliefs, behaviors, habits, as well as forms of behavior and communication. Currently, family communication is deeply mediated by digital technologies, particularly by the use of mobile devices (Rodríguez and Estrada, 2019), which have introduced new challenges in the communicative and relational dynamics between parents and children (Martínez-Roig et al., 2023).

Classic models of family communication, such as those proposed by Chaffee and McLeod (1972), or those developed in Olson's family systems theory (2000), highlight the importance of cohesion, adaptability and communicative style as fundamental axes for the emotional development of children. However, the irruption of mobile devices has altered these dynamics, generating phenomena such as *technoference*, understood as the interruption of family interactions by the constant presence of screens (McDaniel and Coyne, 2016; Martínez-Roig et al., 2023).

This phenomenon is compounded by *phubbing*, or the practice of ignoring others by attending to the cell phone, which has been linked to higher levels of anxiety, depression and behavioral problems in childhood (Pérez, 2024; Muñoz-Carril et al., 2025). Affective communication and shared family time are thus compromised by the presence of the device, which negatively influences the quality of bonds and the perception of emotional support (Carmenate and Marín, 2021).

In this context, it is essential to analyze how families manage communication to establish rules and limits that guide the responsible use of digital devices, especially during routine interaction times such as meals or bedtime. Several studies have shown that the use of cell phones by parents during mealtimes can decrease family interaction and reduce the quality of the time spent with their children. A survey study of children under 5 years of age showed that approximately one-third of children used mobile devices during lunch or dinner, suggesting that the presence of screens at mealtimes is common even in home settings (Dinleyici et al., 2016). These findings reinforce the need to establish clear family norms that promote communication and emotional connection between parents and children at early ages (3-12 years).

In the digital context, parental rules seek to balance access to technology with protection from its potential risks. In this sense, the presence of clear limits, accompanied by dialogue and affective supervision, favors a more responsible use of the devices by minors (Muñoz-Carril et al., 2023; San-Martín et al., 2024). International studies also show three parental mediation strategies: time and content control (restrictive), conversation and guidance (active), and time for sharing digital experiences (co-use) (Valkenburg et al., 2013; Livingstone and Helsper, 2008). A balanced combination of these approaches is associated with greater development of digital autonomy and a lower likelihood of addictive or problematic behaviors.

Other recent research shows how families establish differentiated norms according to the context and age of the children. San-Martín et al. (2024) found that parents of children under 5 years of age often limit cell phone use during meals and sleep, concerned about early screen exposure. Carrasco et al. (2017) and Sandoval (2021) add that family perceptions of parental control oscillate between fear, distress, and need for care, reflecting the tension between protection and child autonomy.

Parenting styles also significantly influence the effectiveness of rules. According to Aguirre et al. (2025), authoritarian styles that combine affection and control are related to lower levels of aggressiveness and better social adaptation, while permissive or

negligent styles can lead to unregulated use of technology and a greater propensity to digital dependence.

Likewise, parental perception of the risks and benefits of using mobile devices is a determining factor in the formulation of norms. Besolí et al., (2018) show that many parents recognize both the educational benefits of the cell phone and its addictive potential, which generates ambivalence in normative decisions. This duality evidences the need to rethink digital mediation from a family co-responsibility approach, which integrates dialogue, negotiation and adult example as early regulation tools.

On the other hand, several studies indicate that the excessive use of mobile devices in childhood can negatively affect the psychological, cognitive and social development of children. Overexposure to screens has been linked to emotional problems, attention difficulties, and delays in cognitive and social development (Huang et al., 2023; Kardefelt, 2017; Kar et al., 2025; Luo et al., 2024). However, parental involvement and parenting styles can moderate these effects, as adult supervision and active mediation help to partially mitigate risks (Abdoli et al., 2024; Rabbani et al., 2022). Likewise, early exposure to screens can affect language and favor the appearance of behavioral disorders in young children (Bailón and Vaca, 2021; Cabrera, 2023; Figueroa and Campbell, 2020). These findings underscore the importance of setting appropriate limits on the use of mobile devices and promoting quality parent-child interactions from early childhood.

One of the most studied effects of mobile device use is its impact on sleep. Almodóvar et al. (2023) and Ochoa et al. (2023) demonstrated that cell phone use before bedtime is associated with insomnia, daytime fatigue and decreased academic performance. Celis et al. (2022) also link device abuse with sleep disorders in adolescents, warning about the influence of screens on the regulation of the circadian cycle. Along these lines, several studies have documented similar effects at younger ages: Lee et al. (2022) found that frequent *smartphone* use predicts sleep problems in children aged 4 to 7 years; Cartanyà et al. (2022) reported that spending more than 2 hours a day in front of screens is associated with shorter sleep duration in children aged 3 to 12 years; Sakamoto et al. (2022) observed that the use of digital devices among elementary school children is associated with less sleep time and associated problems; Torres et al. (2025) found that in children aged 3 to 7 years, excessive screen time decreases sleep duration; and Kadambi et al. (2021) confirmed that longer hours of exposure to devices are related to lower quantity and quality of sleep in children aged 3 to 12 years. These findings highlight the importance of limiting screen time, especially before bedtime, to protect children's health and development.

Academic performance is also compromised. Gallego (2023) showed that the addictive use of cell phones in children aged 10 to 12 years negatively affects their concentration and school performance. These results coincide with international research, such as that of Twenge and Campbell (2018), who point out that intensive screen use among children and adolescents aged 2 to 17 in the US is associated with lower performance and psychological well-being.

From a social point of view, the excessive use of mobile devices can limit face-to-face interactions and generate isolation (Carmenate and Marín, 2021). Bueno (2025) argues that technological overexposure during childhood reduces opportunities for exploration, play, and interpersonal learning, essential elements for socioemotional development.

On the other hand, studies such as those by Luna et al (2024) and Feijoo et al (2024) analyze the influence of mobile devices on intellectual and behavioral development, showing how constant exposure to digital content can modify attention and the relationship with advertising, increasing the cognitive vulnerability of minors.

In this scenario, parental rules take on a crucial role in mitigating the risks and enhancing the benefits of the digital environment. Muñoz-Carril et al. (2022) emphasize that families' perceptions of children's cell phone use are mediated by socioeconomic, educational and cultural factors, which calls for family policies adapted to each context.

Likewise, strategies based on conversation and parental modeling favor the internalization of limits and child self-regulation (Clark, 2011). Adult example is an essential element, as children observe their parents' usage patterns, so inconsistent control, such as prohibiting use while adults remain connected, can undermine the credibility of the rules (Muñoz-Carril et al., 2023).

Recent studies show that the use of cell phones during meals or before bedtime interferes with essential processes of socialization, rest and cognitive development, while the rules established in these contexts contribute to the strengthening of family bonds and the well-being of children. Consequently, digital education must be approached from a systemic perspective in which the family assumes an active, reflective and coherent role, combining dialogue, accompaniment and being able to integrate technology as a learning tool and not as an element of affective disconnection.

Taking all of the above into account, the purpose of the study was to analyze the type of control mechanisms exercised by the family within the home to regulate the use of cell phones by their minor children. More specifically, the following objectives were defined:

- Detail the mobile devices most used by parents and children in the family environment.
- Analyze parental permissiveness in the use of cell phones at key times such as mealtime or bedtime.
- To ascertain family beliefs or expectations about the possible behavioral and emotional reactions that their minor children would experience in the event of withdrawal, prohibition, confiscation or reduction of cell phone use.
- To describe the knowledge of parents and guardians related to the influence of cell phones on their children's socialization, academic performance and behavioral changes.

Method

A non-experimental quantitative methodology was used, employing an ex post facto descriptive and cross-sectional design through the survey method (McMillan and Schumacher, 2005).

Participants

A total of 1694 parents with children attending kindergarten and primary school in 23 schools (public, private and subsidized) in the city of Lugo (Spain) participated in the study by means of convenience sampling (families from Lugo selected for their easy availability and proximity to the researcher).

The families participated voluntarily, anonymously, and with informed consent, explaining in detail the purpose of the study and clarifying that the data obtained would be treated with due ethical guarantees.

Regarding gender, 71.3% of the respondents were female. The mean age of the parents surveyed was 41.17 years (SD=5.85).

Regarding marital status, a large majority (71.2%) indicated that they were married, while 9.2% indicated that they were single. In turn, 7.2% said they were in a common-law relationship, 6.2% were divorced, 5.2% were separated and 0.9% were widowed. The rest of the participants reported another type of marital status (e.g., polygamous marriages). Regarding their employment situation, only 13.1% said they were unemployed.

In terms of educational level, 44.9% had university-level education, while 28.7% had vocational training. Likewise, 18.8% completed ESO, Bachillerato or the equivalent. A total of 6.9% indicated that they had primary education and only 0.7% indicated that they had no education.

Instrument

The study used a self-developed questionnaire, organized into several thematic blocks: identification of smartphone use; time spent using the device; actions and tasks performed with the smartphone; parental rules and control of smartphone use; mobile device usage habits; and opportunities and dangers of smartphones. Before these blocks, a section of sociodemographic data was included for both the surveyed parent and the child.

For the validation of the instrument, content validity, construct validity and internal consistency were considered. Eight international specialists with expertise in research methodology and educational technology reviewed each item for univocity, relevance and importance (Fleiss Kappa = .848). Their comments made it possible to adjust, restructure and optimize the initial content of the questionnaire. For the Likert-type scales, internal reliability was estimated using Cronbach's alpha, obtaining an adequate level (α = .797). This coefficient was not applied to categorical response items.

Procedure

The data collection process lasted about three months, and the questionnaire was administered at school entrance and exit times, when adults accompanied the children. In addition, contact was established with the Parents' Associations and, in those cases where it was necessary to access school facilities, authorization was requested from the corresponding school management.

Prior to the application of the questionnaire, it was verified that the respondents had children in school between the ages of 3 and 12 years old. Subsequently, the purpose of the study was explained in detail, inviting voluntary participation and guaranteeing the anonymous and confidential treatment of the data in accordance with the ethical principles of the research. They were also informed that the questionnaire was anonymous, and that they could omit any question or interrupt their participation at any time.

Data Analysis

In order to respond to the research objectives and considering the categorical nature of the variables analyzed, descriptive statistics were used, using frequencies and percentages as the main measures of analysis. Statistical treatment of the data was performed using Microsoft Excel for Office 365 and SPSS v.24.

Results

Regarding the gender distribution of the children of the families that completed the survey, the data show a higher representation of girls (51.4%; n=868), compared to boys (48.6%, n=820), which shows an adequate representation between both genders.

On the other hand, with regard to the age of the children of the families that responded to the survey (Figure 1), the majority of these children are between 10 and 11 years old (36.6% of the total). They are followed by age groups between 8 and 9 years old (equivalent to 20% of the total) and the remaining 38.8% are between 3 and 7 years old. Children under 12 years of age are a minority compared to the rest of the age groups. Specifically, there are 72 subjects, equivalent to 4.2%.

It is important to clarify that each family responded to only one survey, regardless of the number of children they have; in these cases they responded by referring to the youngest child.

Figure 1
Age of sons and daughters of parents surveyed (n valid=1683)

Muestra total N=1694; sin respuesta=11
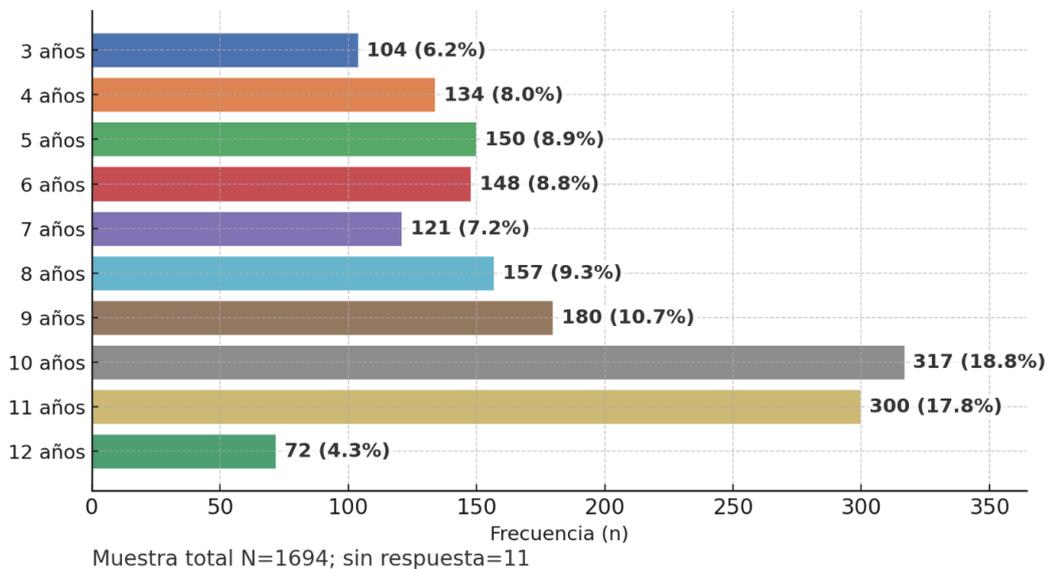
As can be seen in Table 1, 86.5% of the children of the parents surveyed use a cell phone, either because they have one of their own (19%; *n=322*) or because, even without one, they use the cell phone of a relative, friend or acquaintance (67.5%; *n=1143*). Only 13.5% (*n=229*) of the 1,694 families surveyed stated that their offspring did not own or use a cell phone.

Table 1
Does your child use a cell phone? (n valid=1694)

	Frequency (n)	**Percentage (%)**
Yes, he has his own cell phone	322	19.0
Yes, but he does not have his own cell phone	1143	67.5
No, he does not own or use a cell phone	229	13.5

Figure 2 below shows the type of mobile devices that parents use for more than one hour, without having to use them consecutively, and which are not linked to their

work environment and working hours, as well as those used by their children outside the school.

Figure 2

Devices used outside of work (at least 1 hour per day) by parents and devices used by their children at least 1 hour per day outside of school (multiple choice)
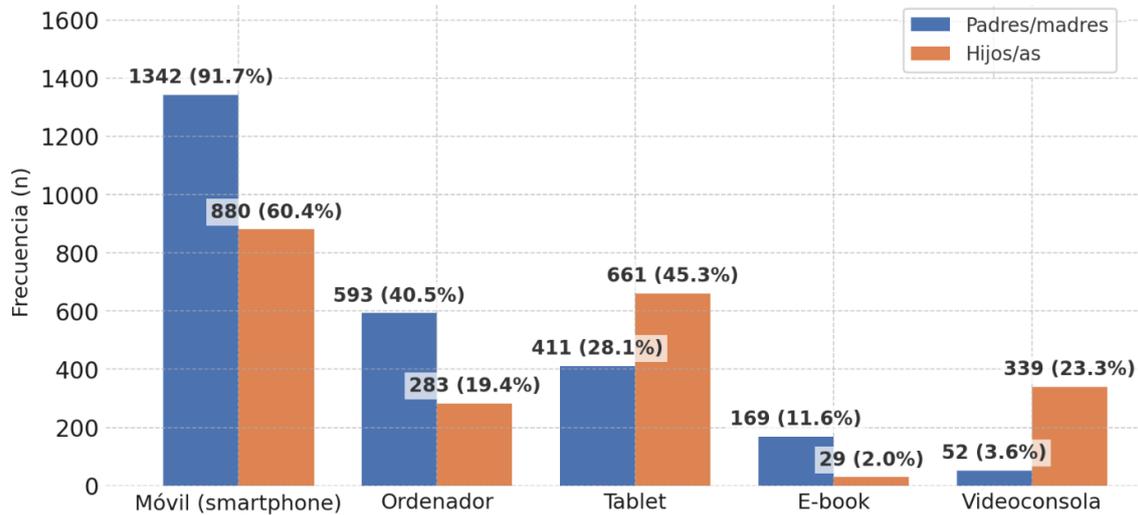
Note. The value of "Mobile (smartphone)" for children reflects use ≥1 hour/day outside the center, so it is lower than the overall prevalence of the item "Does your child use a cell phone?"

The results report that the cell phone (smartphone) is the device most used by both parents (91.7%) and children (60.4%). The computer is the second most used device by families (40.5%) but for their children it is in fourth place (only 19.4% use it at this age). The opposite occurs with the Tablet: while its use by children amounts to 45.3%, in the case of their parents it drops to 28.1%, placing it in third place. E-books are the devices least used by families (11.6%), occupying fourth place. Among children, it is definitely the least used (2%), ranking fifth and last. Finally, video game consoles are the devices least used by parents (3.6%), while for their children they are in third place in terms of preference and use (23.3%).

In the open-ended responses, some families insist that their child "*cares more about the console than the phone*", or that "*I don't like my child to use the cell phone, but I admit that occasionally we let them use it so that they can be entertained, but less and less*". Other parents express more restrictive positions, such as "*[...] I am not in favor of my children having a cell phone until they are 16 years old, an age at which I consider that they already have the minimum experience to know what is good and what is bad*". Along the same lines, opinions such as "*I consider that a child does not need to use a cell phone at all. Their addictive potential is very high, so I think it is also a risk, I will not allow them to have their own cell phone until well into ESO (14 or 15 years old)*". Families indicate in their comments that "*By age, children use a Tablet more than a cell phone...*" and that "*I am in favor of establishing guidelines for good use rather than time restrictions*".

On the other hand, families were asked if they had established any type of rule to control their children's use of mobile devices. Practically 1 in 10 families (9.8%) stated that they do not set rules, which is equivalent to saying that 1 in 10 children under 13 could access inappropriate content without supervision. In addition, 7% of the families recognize that they set standards that are not met or that their compliance is not monitored. Likewise, 83.5% of the 1,464 valid responses from parents who answered this

item affirmed that they set rules, although they do not reliably affirm that they are always complied with, but only from time to time.

Taking these results into consideration, some of the family's comments and observations focus on the importance of enabling mediation, as well as the need for adequate digital education, for example: "*The way to control the cell phone our child uses is by being concerned about what he/she does with it and with the EAS (Educate, Accompany, Supervise) strategy.* Other families also emphasize the need for continuous training from an early age: "*It would be necessary for children to receive information from kindergarten on the dangers of technology*". Other responses from parents are linked to proposals where they suggest "*that training should be a continuous activity, not a one-day event*" and, along the same lines, "to*establish curricular guidelines that are part of the course program rather than occasional talks in schools*".

If we go a little deeper into the routines of family life at home, for example, at mealtime, when we ask the parents of Lugo whether they allow their children to use their cell phones at that time, practically 2 out of 10 families sometimes allow them to eat while looking at their cell phones, while the remaining families (almost 8 out of 10) state that they do not allow them to do so.

Families recognize the importance of setting standards. Some of them stand out: "*We should control cell phone use more...so that it doesn't become something that can't be remedied later,*" and they point to practices they consider problematic*: "First of all, parents who buy a cell phone for their children just for the sake of keeping them sitting or quiet and not disturbing them should receive some kind of communication, but then there is no control over them".* However, they also express feelings of insecurity or lack of preparedness to exercise or sustain such vigilance: "*I do not agree with unsupervised Internet use in our children, it is a very large window to the world that sometimes even we adults are not prepared for, much less a child.*" Faced with these difficulties, families demand risk reduction measures - "*I would like to have the option of phones that only have access to calls and WhatsApp*"-, propose the accompaniment of professionals - "*Give more information to children, especially by appropriate staff who know how to explain it and make them understand it*"- and request structured support for families: "*It would be essential to create a school for parents in schools or a common meeting place for parents or guardians, children and teachers on a regular basis, to deal with issues of this nature: (setting limits, ...)*".

Another of the habits analyzed was the use of cell phones during bedtime. Parents were asked if they allowed their child to sleep with a cell phone nearby. Of the 1463 valid responses, 85.7% said they did not allow it, while the remaining 14.3% said they did, either with the cell phone turned off (8%) or with it turned on/muted (6.3%; some 92 families in Lugo). Of the latter group of families that allow their children to sleep with their cell phones on, 85.1% (87 of the 92 families) said they did not know what their children were doing or did not follow up on it, while the remaining 14.9% assumed that their children might wake up to look at their cell phones, read and respond to messages. These results seem consistent with a permissive family practice that conflates with an absence of parental control.

As part of the study, parents were also asked what kind of emotional reaction they think their minor child would have if he/she were to be left without a cell phone for a week due to circumstances beyond his/her control. Of the 1464 valid responses, approximately 7 out of 10 children would express neutral emotions (resignation or indifference), while almost 3, 2 and 1 out of 10 would show negative emotions such as boredom, distress, sadness and anger, respectively. Positive emotions after being left without a cell phone are very scarce, practically residual.

The families agree that avoiding abusive use is a responsibility that should fall on the parents themselves, "*I believe that the use of cell phones is positive as long as it is controlled by the parents who dedicate time to them*", as well as avoiding addiction to cell phones, as they say: "*I consider it good that they have cell phones but always with family control and in short periods of time ... to avoid addiction or misuse of them,*" insisting that the key is supervision.

In this regard, the families from Lugo were also asked what type of behavioral reaction they thought their minor child would have in the event of being restricted or prohibited from using a cell phone. The results obtained from 1461 valid responses are presented in Table 2.

Table 2
Frequencies and percentages obtained referring to the question "In general, when faced with the prohibition to use and/or play with the cell phone, what do you think would be the MAIN REACTION of your child?"

	Frequency (n)	Percentage (%)
I would understand and accept it	710	48.6
Would be frustrated	259	17.7
He would become aggressive	22	1.5
I would insist on continuing to use the cell phone	417	28.5
We have never forbidden him to use the cell phone	51	3.5

Finally, three questions related to family beliefs about the influence of the cell phone on their children's socialization opportunities, academic performance and behavioral changes were raised. Among the main results, it was found that 1 in 10 families believe that the cell phone has a positive impact on the ability to socialize (10%), on academic performance (5.6%) or on positive behavioral changes (1.9%). However, when it comes to highlighting the negative impact on children, there is a significant increase. Thus, 33.6% of parents affirm that it has a negative influence on their children's ability to relate to others; 30.3% confirm this negative influence on academic performance, and 29% consider that it has a negative effect on behavioral changes. It is worrying that almost half of the families in Lugo state that the use of cell phones does not affect their children at all in their ability to socialize (40%), nor in their academic performance (51.9%) nor in their behavioral changes (50.2%). In addition, 16.4% of parents acknowledge not knowing or not knowing the possible influences of cell phones on their children's socialization (16.4%); this lack of knowledge is around 12.2% in relation to academic performance and 18.9% in relation to possible behavioral changes in their children.

In line with these results, some families express concern and attribute the difficulty in exercising adequate control to a lack of knowledge on the subject: "*not having the necessary knowledge in this area makes it more difficult to control my children".* Others emphasize the importance of education and regulation rather than sanctioning: "*I believe that the survey is necessary and I emphasize that it is better to help and regulate than to persecute and punish".* Likewise, other families attribute child development problems to mobile devices when they point out that: "*it is necessary not to facilitate access at very early ages as it prevents the development of the imagination"* and social limitations expressing that "*new technologies used well are a step into the future of the new generations, but never losing the traditional, such as relating to their friends and family".* These perceptions reflect a tension between technological innovation and the preservation of traditional forms of socialization.

Discussion and Conclusions

The present study highlights the high presence of cell phone use among children aged 3 to 12 years, as well as the diversity of devices available in households. The results indicate that a considerable percentage of minors (86.5%) use mobile devices, either their own or those of family members, with *smartphones* being the most common among both children and their parents. Tablets and computers occupy a secondary place, while video game consoles and electronic books are less widely used. Although most families establish rules to regulate cell phone use, their implementation and monitoring varies significantly, reinforcing the importance of active parental mediation and constant supervision (Muñoz-Carril et al., 2022).

Regarding regulation of use, a large number of families report establishing parental rules, although the effectiveness of these rules depends on monitoring and supervision. Although only a small percentage of families do not impose rules (9.8%) or do not ensure compliance with them (7%), permissiveness at certain routine times, such as mealtimes or sleep, is evidence that supervision is not always strict. For example, although most parents do not allow children to sleep with their cell phones, 14.3% do, generally without effective control over their use at night.

One of the most common measures is the reduction of the time minors use their cell phones. The study shows that parents perceive that their children would mostly react with resignation to the temporary withdrawal of the cell phone. However, almost a third believe that their children would show frustration or insistence on continuing to use it. These perceptions reflect a growing parental awareness of the emotional dependence that cell phones can generate in children and the importance of supervision.

Regarding beliefs about the effects of cell phones, parents identify a negative impact on their children's socialization, academic performance and behavior, although there is a significant percentage that does not know or underestimates it. According to Bueno (2025), this lack of guidance turns children and adolescents into digital orphans, not digital natives, referring to the fact that adults have not known how to adequately guide them. Likewise, open comments reveal that families value the need for training and support for a safe and responsible use of technology, enabling mediation strategies that prioritize education over strict prohibition. These results underscore the need to promote healthy digital habits in the home, strengthen emotional bonds and improve family digital skills through example and supervision.

A noteworthy aspect of this study is that it focuses on an age range that is usually little explored - 3 to 12 years of age - coinciding with schooling in the second cycle of pre-school and primary education. In addition, we consider the sample to be particularly valuable because it is family data and has a size of $n= 1,694$. The quality of this research lies in rescuing the voice of real families, their opinions, demands and personal proposals, which allows us to give meaning to the quantitative results, thus connecting the research with social reality.

Finally, it is considered pertinent that future research should continue this study in other Spanish cities or in international contexts, broadening the age range and type of sample and deepening inferential, comparative and explanatory analyses. This would advance the understanding of patterns of use and parental control of mobile devices, as well as their educational implications.

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