PIXEL-BIT
e-ISSN: 2171-7966
REVISTA DE MEDIOS Y EDUCACIÓN
MEDIA & EDUCATION JOURNAL

Parental nomophobia and its relationship with permissiveness in smartphone use among children aged 3 to 12 years

La nomofobia parental y su relación con la permisividad en el uso del smartphone en menores de 3 a 12 años

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Received: 2025-11-20; **Revised:** 2026-01-18; **Accepted:** 2026-02-19; **Published:** 2026-05-01

ABSTRACT
The widespread use of smartphones in family life means that children are increasingly exposed to screens. In this context of hyper connection, parental mediation and regulation are key to ensuring children's digital well-being. The aim of this study was to estimate the prevalence of nomophobia among parents of 3- to 12-year-old smartphone users and to analyze the relationship between parental nomophobia and the level of permissiveness regarding children's smartphone use. The sample consisted of 1,245 mothers and fathers from the city of Lugo (Spain), who completed the validated NMP-Q scale along with a set of items on rules and usage practices. Descriptive prevalence analyses, Pearson correlations, and binary logistic regression models were conducted. Results showed that 20.96% of respondents reported at-risk or problematic levels of nomophobia. Total nomophobia and its factors were associated with a higher likelihood of adopting a more permissive parenting style. These findings highlight the need to incorporate parental nomophobia into family interventions aimed at promoting healthy smartphone use.

RESUMEN
El elevado nivel de intrusión de los teléfonos inteligentes en la vida familiar hace que niños y niñas estén cada vez más expuestos a las pantallas. En este contexto de hiperconexión, la mediación y regulación parental resultan claves para garantizar el bienestar digital de los menores. El objetivo de este estudio fue estimar la prevalencia de la nomofobia entre progenitores con hijos/as de 3 a 12 años usuarios de smartphone y analizar la relación entre la nomofobia parental y el nivel de permisividad respecto al uso del móvil en la infancia. Participaron 1245 padres y madres de la ciudad de Lugo (España), a quienes se administró la escala validada NMP-Q junto con un bloque de ítems sobre normas y prácticas de uso. Se realizaron análisis descriptivos de prevalencia, correlaciones de Pearson y modelos de regresión logística binaria. Los resultados mostraron que el 20.96 % de los encuestados presentaba niveles de nomofobia en riesgo y problemáticos. La nomofobia total y sus dimensiones se asociaron con una mayor probabilidad de adoptar un estilo parental más permisivo. Estos hallazgos evidencian la necesidad de integrar la nomofobia parental en las intervenciones familiares orientadas a un uso saludable del smartphone.

KEYWORDS · PALABRAS CLAVES
Nomophobia; smartphone; problematic use; parental permissiveness, childhood
Nomofobia; teléfono inteligente; uso problemático; permisividad parental; infancia

How to cite: Muñoz-Carril, P.C., Platas Ferreiro, M.L., Mosquera Bargiela, I., & Puentes Puente, A. (2026). Parental nomophobia and its relationship with permissiveness in smartphone use among children aged 3 to 12 years [La nomofobia parental y su relación con la permisividad en el uso del smartphone en menores de 3 a 12 años]. *Pixel-Bit, Revista de Medios y Educación,* 76, Art. 3. https://doi.org/10.12795/pixelbit.118978

1. Introduction

The excessive use of smartphones has deeply transformed the dynamics of communication, leisure, and organization in contemporary family life (Bush & McCarthy, 2021). Over the last decade, mobile phone use has gone from being an accessory to becoming an everyday item for children, who access it at increasingly younger ages. While smartphones provide many advantages for communication, finding information, and organizing family activities, there are also risks linked to their heavy or unregulated use, like exposure to inappropriate content or disruption of daily routines (Garmendia et al., 2022). Current literature indicates that parental mediation is crucial for shaping healthy digital habits, as families act as a model and filter for technological use during childhood. In this work, parental mediation is understood as the set of strategies by which parents guide, supervise, and regulate the use of smartphones by their children (p. ej, active mediation, restrictive, and co-use). Complementarily, parental permissiveness is conceived as a more indulgent regulatory style, characterized by less strict limits and less supervision; in this study, operational factors are determined using the Key Permissiveness Indicator (KPI) described in the data analysis section. At this stage, characterized by limited autonomy, parental educational practices (restrictive, active, or permissive) directly influence both the development of self-regulation and the risk to which minors may be exposed (Modecki et al., 2022).

Based on this conceptual framework, the growing presence of smartphones in the family ecosystem poses an educational and digital problem related to the difficulty many families have in maintaining clear and stable mediation guidelines in the face of a device that is increasingly prevalent in children's daily lives. Although literature has widely examined nomophobia among teenagers and college students, the available empirical evidence remains limited, especially regarding the relationship between parental monophobia and more permissive regulation styles in children's smartphone use at a young age. Addressing this gap is relevant, since between the ages of 3 and 12, digital habits, routines, and family rules are consolidated and can be projected into later stages of development.

Parents with higher levels of anxiety about disconnection tend to show a more tolerant attitude towards children's mobile phone use, using the smartphone more frequently in the presence of children and setting less consistent limits (Matthes et al., 2021; Schmuck et al., 2023). This situation can lead to contradictory educational messages, oscillating between permissiveness and punctual prohibitions, complicating the setting of coherent technological routines (Rodríguez-García et al., 2023; Zwilling, 2022). This behavior is a particularly worrying phenomenon considering that adults act as a vicarious learning model in the 3-12 age stage, in which family patterns have a determining influence.

Therefore, the present study aims to fill a relevant empirical gap in the field of digital parenting, focusing on monophobia in parents with children between 3 and 12 years old, an age group scarcely documented by previous literature. Its social and educational significance lies in the fact that the relationship parents have with the smartphone not only affects their own digital well-being but also shapes the normative and relational context in which children learn to use this device. From this perspective, the research provides empirical evidence by estimating the prevalence of parental monophobia and, at the same time, analyzes its relationship to and predictive role in permissiveness in smartphone use in childhood, contributing to a more integrated understanding of the parental mediation process in early stages of development.

Specifically, the following research objectives were set:

1. To analyze the prevalence of nomophobia in parents with children aged 3 to 12 who use smartphones.
2. To analyze the relationship between parental nomophobia and the level of permissiveness regarding the use of smartphones in childhood.
3. To analyze the role of global nomophobia and its four dimensions (access to information, convenience, communication, and connection) in the likelihood that parents will adopt a more permissive style in smartphone use.

2. Methodology

The research was developed using a quantitative approach, and an ex post facto non-experimental design was adopted; the survey method was used as the main technique for data collection (Hernández-Sampieri & Mendoza, 2018).

2.1. Participants

The study initially involved 1694 parents from the city of Lugo (Spain), selected through non-probability convenience sampling. For the analyses presented in this work, we considered only parents with children between 3 and 12 years old who regularly used smartphones, along with questionnaires that did not show inconsistencies or outliers in the responses. After applying these inclusion criteria and cleaning the database, the final sample consisted of 1245 subjects.

Regarding gender, 71.4% (n=890) of the parents surveyed were women, while the average age of the respondents was 41.43 years (DT=5.86).

Related to marital status, 72.62% (n = 904) of participants were married, 8.27% (n = 103) were single, 6.59% (n = 82) lived in a common-law or de facto union, and 6.51% (n = 81) were divorced. In addition, 4.66% (n=58) were separated, and 0.80% (n=10) were widowed. Finally, the “other” category represented 0.08% (n=1), while six people (0.48%) decided not to answer the question.

Regarding the employment situation, 85.70% (n=1067) were employed, while 11.97% (n=149) were unemployed. The “other” category represented 1.20% (n=15). In addition, 0.80% (n=10) were retired or receiving a pension, and 0.32% (n=4) didn’t answer the question.

2.2. Instrument

The data were collected using a self-developed questionnaire, preceded by a block of socio-demographic data from the father or mother (age, gender, employment situation, marital status, etc.) and the child (age, gender, school year, type of school).

The questionnaire was then organized into several thematic blocks: (1) to identify the use of the smartphone; (2) the time the device is used; (3) actions and tasks performed with the smartphone; (4) parental rules and control of the smartphone use; (5) device usage habit; and (6) advantages and risks of the smartphones.

The section on parental rules and control of smartphone use included items designed to collect information on aspects such as the existence and degree of compliance with the mobile phone usage rule (item 24), permission to use it during meals (item 25), nighttime availability of the device and the potential sleeplessness associated with it (items 26 and 26.1), how often the child asks for permission to install and use applications (items 18 and 19), and the parental control mechanism used (item 23). These items were subsequently used to make the key performance indicators (KPI), described in the data analysis section.

In the questionnaire validation process, the criteria of content validity and internal consistency were considered. The validity of the content was assessed by eight international specialists in research methodology and educational technology, who evaluated the univocity, relevance, and importance of the items (Kappa de Fleiss = .848), thereby enabling adjustments to the writing and organization of some of them. In addition, a pilot test with 250 parents was conducted to refine the final version in terms of clarity, length, and comprehensibility.

In addition to the sections mentioned above, the instrument incorporated the Spanish version of the Nomophobia Questionnaire (NMP-Q), previously developed by Yildirim and Correia (2015) and adapted to the Spanish context by León-Mejia et al. (2021). The scale consists of 20 items with a 7-point Likert-type response format (1= completely disagree, 7= completely agree) and assesses four scopes: (1) not being able to access the information (bad mood when it is impossible to access immediate information on the smartphone), (2) giving up comfort (feeling of security associated with having a device with enough battery, coverage, and balance), (3) being unable to communicate (concern for not being able to contact or being contacted by relatives and friends), and (4) loss of connection (concern about disconnecting from digital identity and social networks).

In the sample of families in this study, the NMP-Q showed a very high reliability. The coefficient α of Cronbach was 95 for the total score and ranged between 85 and 94 in the four factors.

In order to corroborate the construct validity in this population, a confirmatory factor analysis (CFA) was carried out using unweighted least squares (ULS), specifying the four-factor model proposed in the literature. The four-factor model showed excellent results (CFI=995, TLI=993, GFI=998, RMSA=044 (IC 90% [0.040, 0.048], and SRMR=046), and all factor loadings were high and statistically significant (λ between .68 and .93), which reinforces the theoretical structure of the NMP-Q in this parental sample.

2.3. Process of data collection

The questionnaires were administered at times when parents were accompanying children to or from school. Also, the Parents' Association was contacted, and permission was requested from the educational center's management to access the school. After verifying that the surveyed people had children between 3 and 12 years old using smartphones, their volunteer collaboration and consent were requested, going through detailed information regarding the goal of this work and stating that the recorded information would be conducted completely anonymously and with due ethical safeguards.

2.4. Data analysis

The data analysis was broken down into three phases. In the first, descriptive statistics were obtained from the 20 items of the NMP-Q, and the prevalence levels of monophobia were estimated (global and for factors), classifying the punctuations in four categories (occasional, frequent, with risk, and problematic) based on cut-off points located at the 15th, 80th, and 95th percentiles of the distribution.

In the second phase, the association between parental nomophobia and the permissiveness in the use of the smartphone was examined using Pearson correlation, considering either the total scores of the NMP-Q or the scores for each of its four factors and the global indicator of permissiveness.

In the third phase, binary logistic regression models were adjusted to analyze the predictive role of monophobia in the probability of being situated in the group of more permissive parents. Models with total scores of nomophobia and independent models were estimated for each NMP-Q factor.

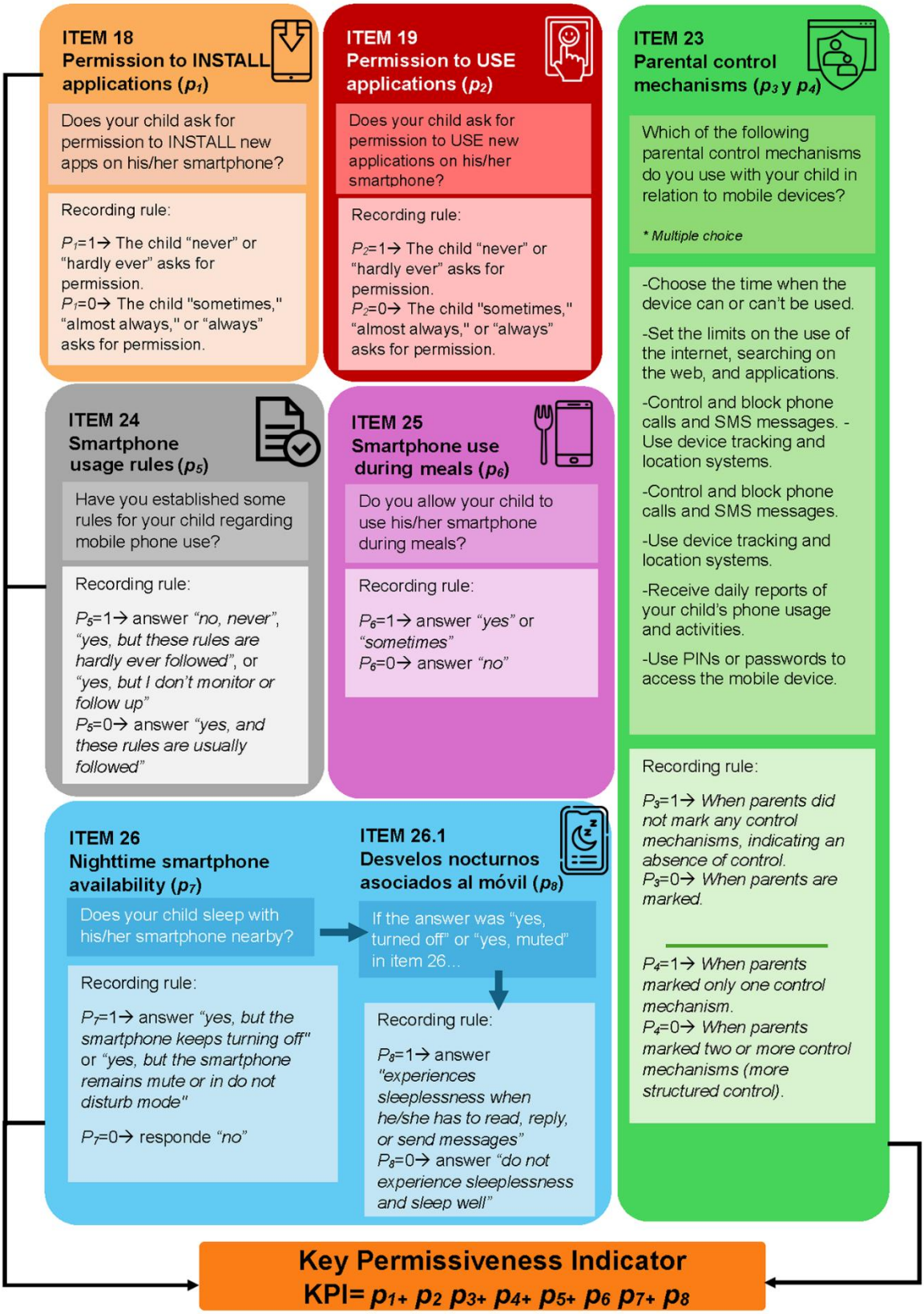
The parental permissiveness was operationalized from items 18, 19, 23, 24, 25, 26, and 26.1, recoded into eight dichotomous indicators ($p_1 \ldots p_8$; 0 = absence, 1 = presence of the sign of permissiveness) referred to different points of the parental mediation (rules, use of the smartphones in meals, availability and nocturnal use, requesting permission to install and use applications, and use of parental mediation mechanisms). Figure 1 summarizes the criteria of recodification of these indicators and the elaboration of the Key Permissiveness Indicator (KPI), conceived as a synthetic indicator of regulatory laxity and low restrictive mediation in children's smartphone use. Therefore, it does not aim to measure "parental control" in a general sense but to identify observable signs of permissiveness (p. ej, absence or poor compliance with standards, less supervision and monitoring, and less use of situational or temporary restrictions) in everyday contexts of device use.

The selection of these areas is backed up by the literature on parental mediation and digital parenting, which distinguishes practices of setting rules and restrictions, strategies for supervision and monitoring, and technical support (parental control), and so on (Dedkova & Smahel, 2020; Modecki et al., 2022; Rodríguez-de-Dios et al., 2018).

The (KPI) was obtained by adding the eight indicators (theoretical range 0-8, with higher values indicative of greater permissiveness). To analyze the logistic regression, this index was dichotomized into two levels: less permissive parents and more permissive parents.

Figure 1

Recoding of items to obtain the Key Permissive Indicator (KPI)



Source: own elaboration.

Since the KPI was elaborated from eight dichotomous indicators, its internal consistency was estimated using the KR-20 coefficient (Forero, 2014). The result showed a moderate consistency (KR-20=0.554; KI 95% bootstrap= [0.504, 0.598]). This value should be interpreted taking into consideration that the KPI encompasses signs of permissiveness in complementary areas (standards, meals, availability/ nocturnal use, permission for apps, and use of controls); therefore, a high degree of homogeneity is not necessarily expected, as in unidimensional psychometric scales. In this sense, the usefulness of the index relies, above all, on the conceptual coherence and the transparency of the criteria of recodification (Figure 1), more than on the strict internal consistency.

The interpretation of the models was based on the odds ratios (OR) and their 95 % confidence intervals, using the pseudo R^2 of Nagelkerke as an overall fit index. All the analyses were carried out using JASP v.0.19.3.0 and IBM SPSS Statistics v.24.

3. Results

3.1. Descriptive analysis and prevalence of nomophobia

Table 1 presents the descriptive statistics for the 20 items of the NMP-Q. The measures ranged between 1.85 and 3.83 on a scale of 1 (completely disagree) to 7 (completely agree), without signs of extreme deviations from univariate normality. In general terms, items related to communication with family and friends (Factor 3) obtained higher scores, while those related to virtual identity and presence in networks (Factor 4) obtained the lowest scores, but with a certain asymmetry suggesting the existence of a subgroup of parents with high levels in this dimension.

To estimate the prevalence of nomophobia, a statistical classification criterion used in previous research on problematic technology use was applied. (León-Mejía et al., 2021). The cut-off points were located at the percentiles 15, 80, and 95 of the total score (p15 = 29, p80 = 76, p95 = 99). In the sample, 64.98 % of parents were at the level of frequent nomophobia, 15.66 % at risk, and 5.30 % at problematic nomophobia, while 14.06 % presented occasional levels. Overall, around one in five participants falls into the highest concern ranges (at risk or problematic), meaning that discomfort with digital disconnection is relatively common.

Likewise, levels of nomophobia were analyzed in each of the four dimensions of the scale, applying the same percentile criterion. In all factors, the category of frequent nomophobia accounted for the majority of cases (between 63% and 78%), while the at-risk and problematic categories remained at approximately 16% and 5-6%, respectively. Factor 4 (loss of connection) showed the highest percentage at the frequent level (78.15%) and a virtually zero presence of occasional nomophobia, reinforcing the idea of an intense relationship with the need to keep connected to the digital environment.

Table 1

Descriptive statistics of the NMP-Q items in parents (n=1245)

Factor	Ítems	M	DT	CI 95 % (LL–UL)	Asymmetry	Kurtosis
F1	1. I would feel pretty awful if I couldn't access the information at any time through my smartphone.	3.08	1.82	2.98–3.19	0.51	-0.71
	2. I would be upset if I couldn't consult information through my smartphone whenever I want.	3.33	1.81	3.23–3.43	0.37	-0.83
	3. I would get nervous if I couldn't access the news (e.g., events and weather forecasts) through my smartphone.	2.32	1.58	2.23–2.41	1.15	0.52
	4. I would get annoyed if I couldn't use my smartphone whenever I want.	3.11	1.79	3.01–3.21	0.50	-0.70
F2	5. I would be scared if my smartphone ran out of battery.	2.59	1.77	2.49–2.69	0.93	-0.13
	6. I would have a heart attack if I were about to run out of credit on my smartphone or reach my monthly spending limit.	2.12	1.54	2.03–2.20	1.40	1.26
	7. If I lost the data signal or couldn't connect to a Wi-Fi network, I would constantly check if I had regained the signal.	2.58	1.70	2.48–2.67	0.97	0.06
	8. If I couldn't use my smartphone, I would be scared of getting lost somewhere.	3.30	1.91	3.19–3.40	0.45	-0.91
	9. If I couldn't have access to my smartphone after a while, I would feel anxious.	2.43	1.65	2.33–2.52	1.07	0.28
F3	10. I would be worried about not being able to communicate with my family and friends at the moment.	3.51	1.91	3.41–3.62	0.34	-0.97
	11. I would be worried because my family and friends would not be able to contact me.	3.83	1.89	3.73–3.94	0.18	-1.03
	12. I would get nervous about not being able to receive text messages or calls.	3.08	1.84	2.97–3.18	0.54	-0.77
	13. I would be worried about not being able to keep in touch with my family and friends.	3.59	1.91	3.48–3.70	0.30	-1.01
	14. I would get nervous about not being able to know if someone has tried to contact me.	3.02	1.83	2.92–3.12	0.61	-0.66
	15. I would be worried about having stopped being in constant contact with my family and friends.	3.10	1.87	3.00–3.20	0.59	-0.76

Factor	Ítems	M	DT	CI 95 % (LL–UL)	Asymmetry	Kurtosis
F4	16. I would get nervous if I were disconnected from my virtual identity.	1.85	1.35	1.77–1.92	1.81	2.94
	17. I would feel awfully bad about not being able to keep up to date on what's happening in the media and social networks.	2.10	1.48	2.02–2.18	1.40	1.36
	18. I would feel uncomfortable about not being able to check notifications and virtual networks.	1.97	1.41	1.89–2.05	1.56	1.88
	19. I would feel overwhelmed about not being able to check new messages and emails.	2.08	1.46	2.00–2.16	1.39	1.28
	20. I would feel weird, actually, I wouldn't know what to do.	2.08	1.53	1.99–2.16	1.41	1.23

Note: F1 = Unable to access information; F2 = To give up comfort; F3 = Unable to communicate; F4 = Loss of connection

3.2. Parental nomophobia and permissiveness in the use of the smartphone

The association between nomophobia and permissiveness regarding smartphone use among minors was analyzed. The Pearson correlation between the total score of the NMP-Q and the global permissiveness index was positive and statistically significant (r=0.21, p<.001), indicating that higher levels of monophobia are linked to greater parental permissiveness.

Next, a binary logistic regression model is adjusted, with dichotomous permissiveness as the dependent variable (0 = less permissive, 1 = more permissive) and total nomophobia as the predictor (Table 2). Parental nomophobia is significantly associated with the probability of being placed in the most permissive group, because for every point increase in the total score of NMP-Q, the odds (probable reason) for being a more permissive parent increase 1.7% (OR = 1.017, IC 95 % [1.011, 1.022], p < .001). Thus, a 10-point increase in nomophobia represents approximately an 18% increase in the odds of belonging to the more permissive group. The pseudo R^2 of Nagelkerke (0.0279) suggests a rather small effect, although it is in line with what is expected in family behaviors modulated by multiple factors.

Table 2

Logistic regression model of parental permissiveness as a function of total nomophobia (NMP-Q)

Predictor	B	SE	Wald	p	OR	CI 95 % (LL)	CI 95 % (UL)
Total nomophobia (NMP-Q)	0.017	0.003	35.12	<.001	1.017	1.011	1.022

Note: OR = odds ratio

To learn more about this pattern, the role of the four dimensions of the NMP-Q was analyzed. All four dimensions showed a positive and significant correlation with the permissiveness index (r between 0.14 and 0.22, p<.001), indicating that greater discomfort related to being unable to access information (Factor 1), giving up comfort (Factor 2), being unable to communicate (Factor 3), or losing connectivity with digital identity and networks (Factor 4) is associated with more lenient regulations on smartphone use.

The independent logistic regression models for each factor are shown in Table 3. For each additional point in each factor, the odds of belonging to the most permissive group increase between 3.2 % and 6.1 % (OR between 1.032 and 1.061, p < .001). The most significant upward effects were observed in the dimensions related to technical comfort (Factor 2) and the loss of connection to digital identity and social networks (Factor 4), which represent the highest pseudo R^2 values of Nagelkerke. Taken together, the findings indicate that parental nomophobia, especially in the aspects linked to comfort and the need for continuous connection, is associated with a more permissive educational style regarding smartphone use in childhood.

Tabla 3

Logistic regression model of parental permissiveness as a function of the NMP-Q dimensions

Predictor	B	SE	Wald	p	OR	CI 95 % (LL)	CI 95 % (UL)
Factor 1. Unable to access information	0.052	0.011	20.60	<.001	1.053	1.030	1.077
Factor 2. To give up comfort	0.056	0.010	31.93	<.001	1.058	1.037	1.079
Factor 3. Unable to communicate with the smartphone	0.032	0.007	20.00	<.001	1.032	1.018	1.047
Factor 4. Loss of mobile connection	0.059	0.010	32.44	<.001	1.061	1.040	1.083

Note: OR = odds ratio

4. Discussion and conclusions

In the current digital ecosystem, smartphones take a key role in daily family life. The early age at which children access their own smartphones poses significant challenges for parents in their digital education, requiring them to define clear usage criteria, apply mediation and parental control strategies, and become aware that their own relationship with technology acts as a vicarious learning model for their children. In this context, the digital self-regulation of adults and their ability to manage disconnection are essential factors in fostering healthy technological habits during childhood (Cánovas, 2021; Márquez et al., 2025).

Based on this, the present study aimed to delve deeper into the relationship between parents and children aged 3–12 regarding nomophobia and the level of permissiveness in smartphone usage.

Regarding the first goal of the research, the outcomes showed that the majority of parents experience occasional or frequent nomophobia, and a significant proportion exhibit high levels (at-risk or problematic). Although the observed magnitude is somewhat more moderate than that described in the college population (Tuco et al., 2023), these findings reinforce the idea that discomfort with disconnection is not a phenomenon restricted exclusively to adolescents and young adults (Humood et al., 2021). In line with recent evidence, nomophobia can affect different stages of the life cycle, including seniors, for whom telephone dependence has been identified as an increased risk for mental health (Mohamed & Shaban, 2025). Taken together, the outcomes support the appropriateness of considering adults' digital health as part of the family educational system.

On the other hand, the confirmation of the four-factor structure of NMP-Q in the parent sample of this research supports the validity of the instrument in the adult population with parental responsibility and is consistent with the original proposal (Yildirim & Correia, 2015) and the Spanish adaptation (León-Mejía et al., 2021), as well as subsequent validations in different contexts (e.g., Caba-Machado et al., 2024; Ma & Liu, 2021). The highest relevant scores on the dimensions related to immediate communication and the need for connection suggest that, for these parents, the smartphone serves a central function in family coordination, constant availability, and the maintenance of digital identity. This pattern is consistent with the conceptualization of monophobia as a phenomenon linked to the fear of disconnecting from flows of information, relationships, and daily resources (León-Mejía et al., 2021; Tuco et al., 2023).

Regarding the second objective, regression models indicate that, as nomophobia scores increase, the probabilities of being in the most permissive parents group also increase (Table 2). This pattern is also observed in general terms for dimensions of the NMP-Q (Table 3). Although the effect sizes are modest, the results are consistent with the multifactorial nature of nomophobia and parental mediation (Chang et al., 2019; Rodríguez-de-Dios et al., 2018) and point to a significant association between the discomfort with disconnection and laxer regulation of children's smartphone use in the areas measured by the KPI. (Figure 1).

These findings are consistent with international literature that has highlighted how adults' digital practices condition their strategies for regulating screen use. It has been established that excessive smartphone usage by parents correlates with a diminished sense of control over their children's usage and an increase in conflicts regarding the device (Matthes et al., 2021; Schmuck et al., 2023). Longitudinal and mediation studies have demonstrated that parental support and the quality of the parent-child relationship are associated with less problematic mobile phone use among children, either through variables like self-esteem or fear of losing something (FoMO) (Kim, 2022; Tan et al., 2025). In this regard, the outcomes of this study suggest that parental nomophobia can hinder the consistent application of digital limits and routines by promoting a normalization of constant availability. However, considering the cross-sectional and non-experimental nature of the study, we should understand this interpretation as a plausible explanation for the observed association, not as a relationship.

Regarding the third goal, the analysis of the NMP-Q dimension suggests that the four dimensions of nomophobia are associated with a higher probability of belonging to the most permissive group, with the dimensions related to technical comfort and the necessity of constant connectivity standing out slightly (Table 3). This result suggests that the search for stable connectivity and the concern for maintaining the connection are not only individual

preferences but can also contribute to normalizing the constant availability of the smartphone within the family. Recent literature on digital lifestyle and mobile dependence underlines the role of continuous connectivity and early patterns of device access in shaping problematic usage trajectories. (Ramos-Soler et al., 2021; Tuco et al., 2023; Albacete-Maza et al., 2025). The research findings indicate that these dynamics also function within the adult domain and that the challenges of digital self-regulation among parents can create familial environments that hinder the establishment of clear boundaries regarding device usage by minors.

Note that a broader spectrum of research on digital parenting encompasses the obtained results. Thus, internationally, recent investigations have shown that parental mediation practice (including active mediation, co-use of technologies, and restrictive forms of mediation) is systematically related to several indicators of digital well-being and problematic use (Modecki et al., 2022; Tan et al., 2025). In addition, it has been noted that effective mediation requires not only technical skills but also emotional resources and relationships that allow for maintaining reasonable limits (Dedkova & Smahel, 2020; Geržičáková et al., 2023). Scientific literature also demonstrates that families that frequently combine active mediation, dialogue, and certain technical control measures do not always manage to apply the limits they consider desirable consistently, especially when mobile use is turning problematic (Garmendia et al., 2022; García-Rojas et al., 2025; Idoiaga-Mondragón et al., 2025; Muñoz-Carril et al., 2023).

From a psycho-educative perspective, these findings have some pragmatic significance. Firstly, interventions aimed to promote a healthy use of smartphones shouldn't focus only on children and teenagers but should also include systemic measures to work with families. Evidence shows that the most prominent interventions combine the development of digital skills with remarks on risks and opportunities, training in active mediation, and support for emotional self-regulation regarding technology (Modecki et al., 2022; Tan et al., 2025). In this regard, it seems necessary that parents raise awareness of their difficulties with disconnection, check their constant availability habits, and develop digital self-care strategies, as recommended by several specialists (Cánovas, 2021; Idoiaga-Mondragón et al., 2025; Márquez et al., 2025).

Secondly, the outcomes reinforce the idea that regulating smartphone use cannot be far from other aspects of family life. Parental support, the quality of the parent-child bond, and certain parenting styles have been associated with a lower risk of problematic use and better indicators of digital well-being (Kim, 2022; Schmuck et al., 2023; Tan et al., 2025). From this viewpoint, parental nomophobia can be perceived as an additional facet of vulnerability that interacts with structural factors (socio-educational, working conditions, time availability) and with societal expectations of perpetual connectivity. Public policies and prevention programs should address this issue and seek strategies that go beyond standard recommendations about "screen time," supporting families with balanced and coherent digital routines that meet children's needs (Garmendia et al., 2022; García-Rojas et al., 2025; Albacete-Maza et al., 2025).

This research has some limitations that are necessary to consider. The cross-sectional design prevents establishing relationships between nomophobia and permissiveness, so it is not possible to determine whether high levels of nomophobia lead to a more permissive parenting style or certain family practices associated with smartphone use contribute to intensifying digital dependence in adults. Furthermore, social desirability bias or discrepancies with children's actual smartphone use may influence the use of parental self-

perception measures. Recent studies on parental mediation have demonstrated that adults' perceptions of children's behaviors and associated risks do not consistently correspond with children's self-reports or data obtained from more objective measures (Geržičáková et al., 2023).

Future research should combine the perspective of adults with those of the children, incorporating, whenever possible, more direct indicators of smartphone use. Likewise, it would be relevant to incorporate sociodemographic variables that could play an important mediating role, as well as to develop longitudinal studies using mixed methods across different contexts, either national or international.

Acknowledgments

This article was written as part of research carried out at the CIED-Humano of the Pontificia Universidad Católica Madre y Maestra (Dominican Republic) in November 2025, by the first two authors, who wish to express their deep gratitude to PhD Angel Puentes Puente for his guidance and mentorship.

Contributions

Conceptualization, PCMC; data curation, PCMC y MLPF; formal analysis, PCMC; methodology, PCMC and MLPF; project management, PCMC and MLPF; resources, PCMC; software, PCMC; supervision, PCMC and APP; validation, PCMC, MLPF, and IMB; visualization, PCMC, MLPF, and APP; and writing—preparation of the original draft, PCMC, MLPF, IMB, and APP.

Data availability

Conceptualization, PCMC; data curation, PCMC y MLPF; formal analysis, PCMC; methodology, PCMC and MLPF; project management, PCMC and MLPF; resources, PCMC; software, PCMC; supervision, PCMC and APP; validation, PCMC, MLPF, and IMB; visualization, PCMC, MLPF, and APP; and writing—preparation of the original draft, PCMC, MLPF, IMB, and APP.

Data availability

The data from this study are available upon reasonable request to the corresponding author..

Ethics declarations

No se aplica.

Conflicts of interest

All authors declare that they have no conflict of interest.

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