



## Sharing images or videos of minors online: Validation of the Sharenting Evaluation Scale (SES)

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### ABSTRACT

Sharenting is a current phenomenon of online communication, which is related to the sharing of images of the youngest members of the family (often minors) by parents or relatives, mainly on social networks. However, this constitutes a series of consequences that compromise privacy and may put the child at risk. The aim of this work was to validate the Sharenting Evaluation Scale (SES), designed to assess the degree of sharenting in the adult population, in order to catalogue the type of practice performed through ranges. A rigorous process of design and validation of the scale was carried out on a sample of 146 Spanish adults. Different strategies were used, such as expert judgement, exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and reliability analysis using Cronbach's alpha coefficient. After that, the scale was composed of 17 items configured in three factors: implications, social behaviour, and self-control. Finally, the scale showed good psychometric properties, providing a unique and reliable instrument to assess the degree of sharenting performed by an adult.

### 1. Introduction

The practice of sharenting refers to sharing content about (underage) children or parenting on online social media. This term comes from the words 'share' and 'parenting' (Blum-Ross & Livingstone, 2017; Çimke et al., 2018). Shared content includes all types of information about children (Collins Dictionary, 2013), i.e. it can be text, photographs or videos of the child or activities related to their upbringing. Sharenting can be conceived from a non-negative perspective, where parents share the affection and pride that their children represent in their lives (Dhir et al., 2015; Lazard et al., 2019), from a positive perspective parents often resort to this practice to share their child's growth with friends or distant relatives, collect memorable moments, as well as receive and/or share social support about the dilemmas of parenthood, especially parents whose children face difficulties such as physical or learning disabilities (Siibak & Traks, 2019; Steinberg, 2016). However, the same authors warn about the 'dark side' of sharenting: the emergence of computerised childhood, loss of privacy and the distress it could cause children in the future.

The issue of protecting children's right to privacy in the digital age conflicts with parents' desires to share their information on social networks, especially since it is the parents who must actively protect their children's digital safety (Gligorijević, 2019). In this respect, Kopecký et al. (2020) describe the negative aspects of sharenting in five ways: (a) excessive sharing of photos or videos of their own children (usually without their consent), (b) creating profiles of children within various kinds of online services (without their consent) - in extreme forms, the creation of prenatal profiles, (c) creation of various kinds of online diaries, in which the life of the child is monitored day by day, month by month, (d) child abuse for creating extremist and hateful content, (e) child abuse as a commercial tool, etc. These effects can be multiplied by the fact that nowadays the affected minor is not only the children (Çimke et al., 2018), but also cousins or younger siblings (Hinojo-Lucena et al., 2020). Although regulations already exist to guarantee the safety of minors in digital contexts, the protection of their dignity and reputation is not very clear; therefore, the right to privacy should be considered not only as a right but also as the best interest of the child (Azurmendi et al., 2021; Kravchuk, 2021), as well as the right to be

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forgotten within the digital world (Leaver, 2020).

In this regard, appropriate legal frameworks need to be put in place, allowing parents to conduct better surveillance as a mechanism to protect and preserve their children's digital identity (Prakash, 2019). Previous studies on sharenting indicate that online privacy issues need to be considered from an interpersonal perspective in the digital age in order to address the issue holistically; this is because this responsibility has often been relegated to a solely personal perspective (De Wolf, 2019). According to Kaesling (2021), considering that participation in social networks has become key elements in shaping the lives of 21st century children, the implementation of the Convention on the Rights of the Child requires legal systems to introduce the right of the child to have recourse to a state institution to ensure that the child's views are taken into account in determining the best interests of the child. Similarly, it is necessary to generate legal regulations related to the monetisation of children's image in advertising campaigns; so-called child influencers could even be victims of exploitation thanks to social networks (Goanta & Wildhaber, 2019). In current contexts, characterised by increased Internet use during the Covid-19 emergency, a framework for action is required that addresses the technology, context and policies for early childhood cybersecurity for the youngest members of the family (Edwards, 2021; Nabila et al., 2021).

Sharenting has also allowed the visualisation of social problems transferred into the world of digital social practices (Lazard et al., 2019). Through this phenomenon, some evidence of social problems encountered can be gendered, such as gender equity biases, as it has been shown that parents tend to mention male children more often on social networks than female children (Sivak & Smirnov, 2019); the dilemma faced by women whether or not to share the news of a pregnancy or related aspects on social networks (Cino & Formenti, 2021). Another example corresponds to the social aspects represented on Instagram: gender or racial stereotypes that are presented in real life or in traditional media (Choi & Lewallen, 2017), the growing over-concern about one's appearance, self-image and preoccupation with editing photographs to give a 'better' look (Capdevila & Lazard, 2020), comparing oneself through one's children to demonstrate a higher status (Latipah et al., 2020).

The practice of sharenting has implications related to invasion of the child's privacy, ignorance of the Child Protection Act, creation of a digital footprint at an early age, digital identity theft, negative repercussions on the child's future and risks of the content posted ending up on websites that promote paedophilia. According to Ranzini et al. (2020) privacy can be understood between a) general privacy: social and institutional and b) situational privacy: platform-based, the user decides the level of self-disclosure based on privacy options; which can be helpful for parents, as they should be aware of the information they share on the Internet (Marasli et al., 2017), who can, or cannot, view the content they post. Within this reflection, parents also need to be aware of the changing concept of privacy that their children are growing up with (Brosch, 2016). There must be a co-responsibility of the family in the care of the child's privacy, for which it is necessary to consider family digital education and the development of parents' digital competences in order to safeguard the privacy and digital security of minors (Cino & Vandini, 2020; Kopecký & Sztokowski, 2018; Pineda & Jiménez, 2020).

The creation of a digital footprint at an early age can raise a variety of issues. Wachs et al. (2021) warn that publishing photographs or videos of the child in political contexts or on controversial topics can lead to cyber-attacks on the child, especially when they are published without the child's consent. It can also involve the theft of images for crimes such as identity theft (Otero, 2017), publication of photographs on paedophile websites (Piulachs-Castrillo, 2018). Therefore, contrary to what some parents believe, Sarkadi et al. (2020) confirm that children believe that parents should ask for permission to take and publish content from them. This is why it has been argued that there is a need to create clearer legal regulations on all digital platforms related to children's online privacy (Brosch, 2018), taking into account the laws of all countries

where social media are used (Von Teschenhausen Eberlin, 2017). It is in this category where legal regulation comes into conflict on the issue of advertising campaigns with minors on social networks, where even companies can put mothers who share their information in order to reach a larger audience on networks at risk (Fox & Hoy, 2019; Siegel et al., 2020).

On the other hand, sharenting is identified by social behavioural issues, i.e. issues that address issues at the level of interaction with other people. Sharing photos of children can be seen as a metric of connection with people by receiving emotional reactions, such as a validation of the parenting received through a like, which may prompt the parent to post more photos (Cino et al., 2020). Brosch (2016) states that this practice is often a response to the social isolation that occurs in the early period of parenthood, to be in contact with the outside world and share in the life of the new family member, including as a way to compare oneself to others, such as in social status or life experiences, to gain social feedback and to demonstrate pride in front of others (Wagner & Gasche, 2018). Here again, the monetisation of the child's image comes into play, as the intention to post content crosses the boundaries from social reactions such as seeking validation of parenthood or seeking to generate reactions, to influencing parental purchasing decisions (Kaur & Kumar, 2021). Likewise, Jorge et al. (2021) describe how 'mummy influencers' turn motherhood in social networks into an essentially consumerist agenda.

According to Holiday et al. (2020), three profiles of sharenting parents can be found: (a) polished: publications that use their children as text or image focused on the parents themselves, using the children incidentally, peripherally or as objects of access, (b) promotional: "used their children to promote their own skills, abilities, services, and products" (p. 7), (c) intimate: publications with a memorial function to capture moments of life in order to preserve them, focusing entirely on the child. All profiles can wreak havoc on the child, for example, influencing the child's self-esteem and personal identity development (Ouvrein & Verswijvel, 2019), causing frustration about what their parents post about them (Lipu & Siibak, 2019) or embarrassment (Verswijvel et al., 2019); it has even been reported that children often ask parents to delete posted content (Garmendia et al., 2021). The latter can be exacerbated by posting photographs in intimate situations, for example showing children naked or semi-naked, in swimwear or in situations where sensitive information is exposed (Choi & Lewallen, 2017). It is important for people who engage in this practice to be aware that the photographs or videos posted can be misused now and in the future, as once they are online, they quickly lose control over them (Kopecky et al., 2020).

Finally, the practice of sharenting is closely related to self-control and mobile addiction. Regularly, the high frequency of posting content about their children is caused by the need to be the centre of attention, which some authors call 'oversharenting' (Klucarova & Hasford, 2021). Studies in recent years warn about the excessive use of the Internet in the face of the emergence of social networks and the need to be connected frequently throughout the day, considering it an important addiction among young people (Chung et al., 2019; Malo-Cerrato et al., 2018; Romero-Rodríguez et al., 2021). This addictive behaviour is usually increased with the use of blogs (Blum-Ross & Livingstone, 2017), Instagram (Choi & Lewallen, 2017), Facebook (Marasli et al., 2017) and Twitter (Otero, 2017). Previous research has identified that addiction to mobile phone use can occur as a way to compensate for psychological difficulties or as an escape route from their problems, and this can be aggravated when parents have low digital literacy (Garitaonandia et al., 2020), causing greater vulnerability in their children's privacy, as they are unaware of the privacy infringements committed (Atwell et al., 2019; Barnes & Potter, 2021).

Based on these considerations and due to the non-existence of a scale that assesses sharenting behaviour, the aim of this work was to design and validate the Sharenting Evaluation Scale (SES), to measure the degree of sharenting in the adult population, in order to catalogue the type

of practice that is carried out through different ranges.

## 2. Method

The design of the scale followed a systematised process for its creation and subsequent validation, based on the specialised scientific literature (Arnal et al., 1994; Benson & Clark, 1982; Hernández et al., 2016; Straub, 1989). The phases consisted of: literature review; item formulation; content validity; construct validity; reliability analysis. Criterion validity was not carried out, as there were no instruments at the time of validation that measured something similar to sharenting and served as a criterion for comparison.

### 2.1. Participants and procedure

A cross-sectional study design with a non-probabilistic, purposive sample was adopted for the validation of the scale. The sample consisted of 146 Spanish adults who had ever done sharenting. Specifically, the sample included 86 females (58.9%) and 60 males (41.1%), aged between 18 and 60 years ( $M = 30.95$ ;  $SD = 11.29$ ). The relationship between these adults and the child whose photo was shared on the Internet was child (34.2%), nephew (21.9%), cousin (19.2%), sibling (13.7%), grandchild (1.4%), and no shared relationship (9.6%).

The questionnaire was developed in digital format using Google Forms in order to reach as many participants as possible. It was distributed via email and social networks such as Facebook, Instagram and WhatsApp. The administration of the questionnaire was carried out during the month of January 2020.

### 2.2. Measure

The approach to the instrument began with a review of the literature on sharenting, where no standardised instrument was found to be used for its study. In this regard, most quantitative works used ad hoc instruments (Hinojo-Lucena et al., 2020; Marasli et al., 2016; Kopecký et al., 2020; Kopecký, & Sztokowski, 2018; Verswijvel et al., 2019; Wolf, 2020), therefore, the decision was made to construct our own instrument based on previous literature.

The main construct 'sharenting' was defined as the sharing of images of the youngest members of the family (often minors) by parents or relatives (Çimke et al., 2018).

Specifically, the purpose of the questionnaire is to assess the degree of sharenting in the adult population, to detect the factors that influence it, depending on the dependent variables used, and to catalogue the type of practice that is carried out by means of ranges. These ranges were established similar to the Internet Addiction Test (IAT) (Young, 1998), where 0–20 is normal; 21–39 is mild; 40–69 is moderate; 70–85 is severe. From items 1–9 the scores are summed according to the Likert scale, while from items 10–17 are summed inversely, where: 0 is 5; 1 is 4; 2 is 3; 3 is 2; 4 is 1 and; 5 is 0. The minimum score is 0 and the maximum score is 85. Furthermore, the SES scale consists of 17 items distributed on a six-level Likert scale based on frequency (0 = never; 1 = rarely; 2 = occasionally; 3 = frequently; 4 = very often; 5 = always).

The target audience of the instrument is the adult population of any region and country, who are of legal age and who share photographs of minors.

### 2.3. Data analysis

Data processing was carried out with SPSS software and AMOS software, both in version 25.0. For construct validity, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were used. The analysis of internal consistency was carried out using Cronbach's alpha coefficient.

## 3. Results

### 3.1. Content validity

The most commonly used technique in content validation is expert judgement (Escobar-Pérez & Cuervo-Martínez, 2008). In the dynamics proposed for the expert judgement, questions were asked about the adequacy of each item with respect to the assessment criteria of clarity, coherence and relevance (Dorantes et al., 2016). Each item had to be answered on a four-level Likert scale, where 1 corresponded to "Does not meet the criterion"; 2 to "Low level"; 3 to "Moderate level"; and 4 to "High level". In addition, the experts had a specific section for comments/suggestions.

The protocol for the expert judgement can be found in Table 1. The experts were selected based on the criteria of experience in the subject matter and in the validation of instruments. The invitation was formalised by means of a letter sent by e-mail, together with the evaluation template.

#### 3.1.1. Expert judgement

The experts' responses were compiled based on the mean, standard deviation and concordance index of each item with respect to the criteria of clarity, coherence and relevance (Table 2). The concordance index was calculated on the basis of the frequency, expressed as the percentage of agreement of the experts in terms of the score given to each item according to the levels of the Likert scale (1–4).

With regard to the comments made by the experts on each of the items, all of them were taken into account in order to modify and improve the instrument based on the suggestions made. These comments concerned formal issues in the wording of the items, none referred to the content. The criterion for the elimination of an item was the obtaining of a mean equal to or below a value of 2 in any of the criteria or the disagreement of two or all of the experts on the item. In this case there was no mean equal to or less than a value of 2, nor any disagreement, so the initial scale with the 17 items was maintained.

### 3.2. Construct validity

Prior to the EFA, the Kaiser-Meyer-Olkin measure of sampling adequacy ( $KMO = 0.779$ ) and Bartlett's test of sphericity were calculated ( $\chi^2 = 1055.578$ ;  $df = 136$ ;  $p\text{-value} = 0.000$ ). The values obtained confirmed the relevance for conducting the EFA. The analysis of the communalities showed that all items were above 0.5, ranging between 0.527 and 0.841, so they were found to be adequately explained by the factor structure (Muñoz-Cantero et al., 2019). In the principal component analysis with Quartimax rotation with Kaiser, the 17 items were grouped into three components that explained 54.295% of the variance. Regarding the distribution of items per factor, the first factor explained 25.79% of the variance and included seven items, those referring to the implications of sharing images of minors online. The second factor accounted for 20% and comprised the six items concerning social

**Table 1**  
Expert judgement protocol.

Purpose	Confirm the suitability of each item in the scale.
Experts	<ul style="list-style-type: none"> <li>· Expert 1. PhD specialising in prevention of risky virtual communication. It has more than 50 projects and 150 publications on the topic of Internet risks.</li> <li>· Expert 2. PhD specialising in educational technology. It has more than 10 projects and 120 publications on the topic of Information and Communication Technologies (ICT) and Internet Risks.</li> <li>· Expert 3. PhD specialising in educational communication. It has more than 7 projects and 75 publications on the topic of ICT, Internet Risks and educational communication.</li> </ul>
Validation mode	Individual method by which the information of each expert has been obtained without any contact between them.

**Table 2**  
Mean, standard deviation and agreement index based on frequency.

Item	Clarity	Coherence	Relevance
	M/SD (%)		
1	4/0 (100)	4/0 (100)	4/0 (100)
2	3/0 (100)	3.66/0.47 (66.6)	4/0 (100)
3	4/0 (100)	4/0 (100)	4/0 (100)
4	4/0 (100)	4/0 (100)	4/0 (100)
5	3.66/0.47 (66.6)	4/0 (100)	4/0 (100)
6	4/0 (100)	4/0 (100)	4/0 (100)
7	4/0 (100)	4/0 (100)	4/0 (100)
8	4/0 (100)	4/0 (100)	4/0 (100)
9	4/0 (100)	4/0 (100)	4/0 (100)
10	3.66/0.47 (66.6)	4/0 (100)	4/0 (100)
11	4/0 (100)	4/0 (100)	4/0 (100)
12	3.66/0.47 (66.6)	3.66/0.47 (66.6)	4/0 (100)
13	3.66/0.47 (66.6)	3.66/0.47 (66.6)	3.66/0.47 (66.6)
14	4/0 (100)	4/0 (100)	4/0 (100)
15	4/0 (100)	4/0 (100)	4/0 (100)
16	4/0 (100)	4/0 (100)	4/0 (100)
17	4/0 (100)	4/0 (100)	4/0 (100)

behaviour in sharenting. The third factor accounted for 8.49% and included four items, corresponding to the adult’s self-control when sharing images or videos of the child. The factor model was shaped by adequate construct indicators, as no items were collected with factor loadings below 0.30 (Guadagnoli & Velicer, 1988) (Table 3).

For the CFA, goodness-of-fit indices were collected that were appropriate for the model established in the validation of the instrument. Thus, the Root Mean Squared Error of Approximation (RMSEA = 0.017), indicated the anticipated fit with the total population value; the Standardized Root Mean-Square (SRMR = 0.056), indicated measures of model error size; Goodness-of-Fit Index (GFI = 0.925), and Adjusted Goodness-of-Fit Index (AGFI = 0.886), indicated the absolute rates of best performance; Normalised Fit Index (NFI = 0.905), evaluated the decrease of the  $\chi^2$  statistic of the adopted model with respect to the base model; and the Comparative Fit Index (CFI = 0.996), indicated the percentage of covariance representativeness that could be reproduced by the model (Byrne, 2013).

On the other hand, the correlations between the dimensions were positive in implications-social behaviour ( $R = 0.101$ ), and social behaviour-self-control ( $R = 0.251$ ), while a negative correlation was established between implications-self-control ( $R = -0.058$ ) (Table 4). Only the correlation between social behaviour-self-control turned out to be statistically significant ( $p = .037$ ).

The factor weights of each of the dimensions showed the appropriateness of each item with respect to the dimension of which they are part. Likewise, the dimension “implications” was composed of items 11, 12, 13, 14, 15, 16, 17 with factor weights ranging from 0.37 to 0.91. In “social behaviour”, composed of items 5, 6, 7, 8, 9, 10, the factor weights ranged between 0.37 and 0.92. And “self-control”, composed of four items (1, 2, 3, 4), had factor weights between 0.41 and 0.86. (Fig. 1).

**3.3. Reliability analysis**

Reliability was calculated using Cronbach’s alpha coefficient ( $\alpha$ ) (Table 5), which is the most commonly used index for calculating the reliability of instruments (Ledesma et al., 2002). The overall reliability of the instrument was acceptable ( $\alpha = 0.76$ ). On the other hand, for each of the dimensions the reliability was: implications ( $\alpha = 0.871$ ); social behaviour ( $\alpha = 0.697$ ); self-control ( $\alpha = 0.672$ ). Only if items 1 and 2 were removed would the reliability increase by only 0.01, so it was decided to keep all 17 items of the scale due to their acceptable values in the content and construct validation.

**Table 3**  
Rotated component matrix.

Item	1	2	3
1. How often have you shared pictures or videos of the minor on your social media profile?			0.669
2. How often have you sent photographs or videos of the minor by private message to another person?			0.814
3. How often have you shared more than one photo or video per day?			0.676
4. How often have you felt the need to want to share the minor’s photographs or videos on social media?			0.465
5. How often have you shared a photo or video of the minor in order to receive positive feedback from your contacts?		0.645	
6. How often have you shared photographs or videos of the minor in intimate situations (e.g. nude or semi-nude, in swimwear or in situations where sensitive information is exposed)?		0.738	
7. How often have you shared photographs or videos that may cause frustration and/or embarrassment to the minor?		0.804	
8. How often have you shared pictures or videos of other minors that you have received from other people (e.g. pictures of children of a family member or friend or even memes, stickers or viral videos)?		0.354	
9. How often have people around you reproached you for sharing photos or videos of the minor?		0.588	
10. How often have you deleted the photo or video after sharing it on social media after receiving feedback from someone else?		0.659	
11. How often have you felt that you were invading the minor’s privacy by sharing the child’s photograph or video?	0.408		
12. How often have you considered the Child Protection Act when sharing your photo or video?	0.530		
13. How often have you considered that the photographs or videos you share on social media are creating a digital footprint of the minor?	0.705		
14. How often have you considered that the photograph or video shared may have a negative impact on the minor’s future?	0.885		
15. How often have you considered that sharing a photo or video presents a risk to the minor?	0.833		
16. How often have you considered that the photographs or videos you have shared of the minor could be used for identity theft on the Internet?	0.909		
17. How often have you considered that the photographs or videos you have shared of the minor could end up on websites that promote paedophilia?	0.858		

Note. 1 = Dimension 1. Implications; 2 = Dimension 2. Social behaviour; 3 = Dimension 3. Self-control.

**Table 4**  
Covariances and correlations of CFA.

Relation	Covariance	SE	CR	p	R
Implications ↔ Social behaviour	0.111	0.086	1.287	0.198	0.101
Implications ↔ Self-control	-0.035	0.058	-0.606	0.544	-0.058
Social behaviour ↔ Self-control	0.102	0.049	2.082	0.037	0.251

Note. SE = Standard Error; CR = Critical Ratio.

**4. Discussion and conclusions**

The design and validation of the Sharenting Evaluation Scale (SES) arose from the need to create an instrument to assess the degree of sharenting in the adult population, in order to catalogue the type of practice carried out through different ranges: normal, mild, moderate or severe use. Thus, a pioneering instrument is established, derived from the non-existence of a validated instrument to measure this construct (Hinojo-Lucena et al., 2020; Marasli et al., 2016; Kopecký et al., 2020;



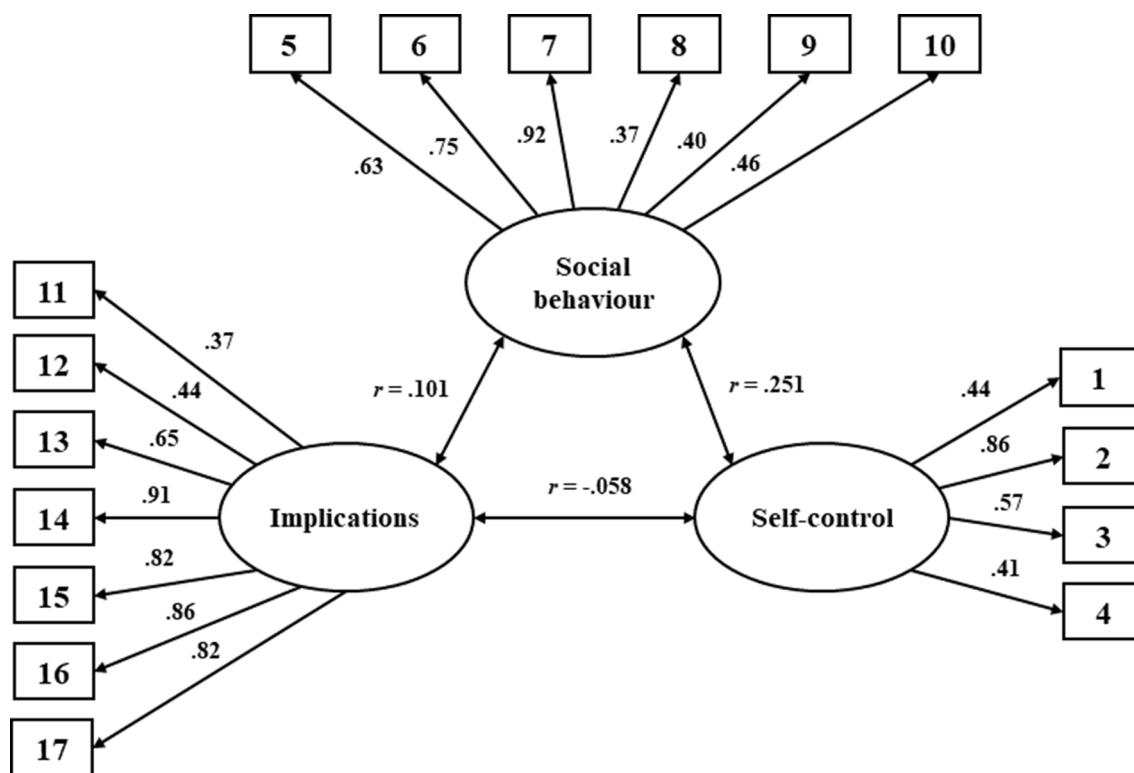


Fig. 1. Confirmatory Factor Analysis estimates. Note:  $\chi^2 = 105.016$ ;  $df = 101$ ;  $p$ -value = 0.372.

**Table 5**  
Item analysis and internal consistency.

Item	Mean	SD	Skewness	Kurtosis	Corrected item-total correlation	$\alpha$ if the item is deleted
1	1.63	1.07	0.683	0.917	-0.060	0.773
2	2.47	1.44	0.090	-0.834	0.128	0.766
3	1.31	1.30	1.031	0.363	0.269	0.753
4	1.21	1.12	0.820	0.182	0.189	0.758
5	1.21	1.35	0.918	-0.035	0.211	0.758
6	0.34	0.81	3.323	12.680	0.324	0.751
7	0.21	0.63	4.971	30.998	0.357	0.751
8	1.03	1.33	1.309	0.952	0.202	0.759
9	0.32	0.89	3.663	14.311	0.334	0.750
10	0.40	0.92	2.779	8.101	0.402	0.745
11	0.85	1.24	1.595	2.129	0.285	0.752
12	1.58	1.91	0.897	-0.765	0.349	0.749
13	1.34	1.64	1.047	-0.175	0.488	0.733
14	1.02	1.61	1.508	0.985	0.648	0.716
15	1.49	1.75	0.912	-0.540	0.522	0.729
16	1.10	1.66	1.346	0.505	0.624	0.718
17	0.85	1.56	1.852	2.129	0.548	0.727

Note. SD = Standard Deviation;  $\alpha$  = Cronbach's Alpha.

Kopecký, & Sztokowski, 2018; Verswijvel et al., 2019; Wolf, 2020). The validation process followed different phases that ensure the validity and reliability of the data (Arnal et al., 1994; Benson & Clark, 1982; Hernández et al., 2016; Straub, 1989), where communalities were above 0.5 (Muñoz-Cantero et al., 2019), factor loadings above 0.3 (Guadagnoli & Velicer, 1988) and reliability at adequate values above 0.75 (Ledesma et al., 2002).

The data obtained from the study sample showed that the images shared were mostly of children (Cimke et al., 2018), but also with other family relationships such as nieces, nephews, cousins, siblings and grandchildren (Hinojo-Lucena et al., 2020). However, it is of concern that despite the fact that most of the photos shared were of adults' relatives, there were almost 10% of shares of images of minors who were not related. This may be due to the viral phenomena of children in

networks, which are shared by a large proportion of social network users, generating a digital footprint of children that is very difficult to erase (Ranzini et al., 2020).

On the other hand, the correlations between the dimensions were positive for implications-social behaviour and social behaviour-self-control, the latter being significant. While a negative correlation was established between implications-self-control. This indicated the high influence of the self-control variable on sharenting, as some studies have begun to reflect (Hinojo-Lucena et al., 2020; Klucarova & Hasford, 2021).

Among the limitations of the study, it is worth highlighting the difficulty in carrying out the study due to the fact that data collection was carried out in the incipient stage of the COVID-19 pandemic. This has delayed the development and validation of the SES instrument. Future lines of research include: (i) the application of the scale itself to obtain data on sharenting behaviour in the adult population; (ii) the inclusion of dependent variables to analyse the factors influencing sharenting; (iii) the validation of the scale in other contexts and languages.

Finally, as a product, a valid and reliable scale is established to assess the practice of sharenting. Thus, it is considered a useful tool to determine the degree of sharenting in the adult population, through the response to 17 items, with a response mode based on a six-level Likert scale according to frequency (0 = never; 1 = rarely; 2 = occasionally; 3 = frequently; 4 = very often; 5 = always). Therefore, the minimum score that can be obtained on the scale is 0 and the maximum is 85 points, with ranges of 0–20 (normal), 21–39 (mild), 40–69 (moderate), 70–85 (severe). This will boost research on sharenting worldwide, which is a challenge that needs to be addressed to increase the field of knowledge on this growing phenomenon in our society.

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**José-M. Romero-Rodríguez:** Methodology, Software, Validation, Writing – original draft. **Kamil Kopecký:** Visualization, Supervision. **Abel García-González:** Conceptualization, Investigation. **Gerardo Gómez-García:** Data curation, Writing – original draft.

#### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

#### References

- Arnal, J., Rincón, D., & Latorre, A. (1994). *Investigación Educativa: Fundamentos y Metodología*. Labor.
- Atwell, G. J., Kicova, E., Vagner, L., & Miklencicova, R. (2019). Parental engagement with social media platforms: Digital mothering, children's online privacy, and the sense of disempowerment in the technology-integrated society. *Journal of Research in Gender Studies*, 9(2), 44–49. <https://doi.org/10.22381/JRGS9220193>.
- Azurmendí, A., Torrell, A., & Etayo, C. (2021). Sharenting y derechos digitales de los niños y adolescentes. *Profesional de la información*, 30(4), Article e300407. <https://doi.org/10.3145/epi.2021.jul.07>
- Barnes, R., & Potter, A. (2021). Sharenting and parents' digital literacy: An agenda for future research. *Communication Research and Practice*, 7(1), 6–20. <https://doi.org/10.1080/22041451.2020.1847819>
- Benson, J., & Clark, F. (1982). A guide for instrument development and validation. *American Journal of Occupational Therapy*, 36(12), 789–800. <https://doi.org/10.5014/ajot.36.12.789>
- Blum-Ross, A., & Livingstone, S. (2017). "Sharenting", parent blogging, and the boundaries of the digital self. *Popular Communication*, 15(2), 110–125. <https://doi.org/10.1080/15405702.2016.1223300>
- Brosch, A. (2016). When the child is born into the internet: Sharenting as a growing trend among parents on Facebook. *New Educational Review*, 43(1), 225–235. <https://doi.org/10.15804/TNER.2016.43.1.19>
- Brosch, A. (2018). Sharenting – Why do parents violate their children's privacy? *New Educational Review*, 54(4), 75–85. <https://doi.org/10.15804/TNER.2018.54.4.06>.
- Byrne, B. M. (2013). *Structural equation modeling with AMOS: Basic concepts, applications, and programming second edition multivariate applications series*. Taylor & Francis. <https://doi.org/10.4324/9780203805534>.
- Capdevila, R., & Lazard, L. (2020). The big picture: Using visual methods to explore online photo sharing and gender in digital space. In *A handbook of visual methods in psychology* (pp. 239–255). Routledge. <https://doi.org/10.4324/9781351032063-1714>.
- Choi, G. Y., & Lewallen, J. (2017). "Say Instagram, Kids!": Examining sharenting and children's digital representations on Instagram. *Howard Journal of Communications*, 29(2), 140–160. <https://doi.org/10.1080/10646175.2017.1327380>
- Chung, K. L., Morshidi, I., Yoong, L. C., & Thian, K. N. (2019). The role of the dark tetrad and impulsivity in social media addiction: Findings from Malaysia. *Personality and Individual Differences*, 143, 62–67. <https://doi.org/10.1016/J.PAID.2019.02.016>
- Çimke, S., Yıldırım, D., & Polat, S. (2018). Child rights neglect in social media: Sharenting. *Güncel Pediatri*, 16(2), 261–267.
- Cino, D., & Formenti, L. (2021). To share or not to share? That is the (social media) dilemma. Expectant mothers questioning and making sense of performing pregnancy on social media. *Convergence: The International Journal of Research into New Media Technologies*, 27(2), 491–507. <https://doi.org/10.1177/1354856521990299>
- Cino, D., & Vandini, C. D. (2020). "Why does a teacher feel the need to post my kid?": Parents and teachers constructing morally acceptable boundaries of children's social media presence. *International Journal of Communication*. <https://ijoc.org/index.php/ijoc/article/view/12493/2982>.
- Cino, D., Demozzi, S., & Subrahmanyam, K. (2020). "Why post more pictures if no one is looking at them?" Parents' perception of the Facebook Like in sharenting. *The Communication Review*, 23(2), 122–144. <https://doi.org/10.1080/10714421.2020.1797434>
- Collins Dictionary. (2013). *Sharenting*. <https://www.collinsdictionary.com/submission/n/11762/Sharenting>.
- De Wolf, R. (2019). Contextualizing how teens manage personal and interpersonal privacy on social media. *New Media & Society*, 22(6), 1058–1075. <https://doi.org/10.1177/1461444819876570>
- Dhir, A., Chen, G. M., & Chen, S. (2015). Why do we tag photographs on Facebook? Proposing a new gratifications scale. *New Media & Society*, 19(4), 502–521. <https://doi.org/10.1177/1461444815611062>
- Dorantes, J. A., Hernández, J. S., & Tobón, S. (2016). Juicio de expertos para la validación de un instrumento de medición del síndrome de Burnout en la docencia. *Ra Ximhai*, 12(6), 327–346. <https://doi.org/10.35197/rx.12.01.e3.2016.22.jd>
- Edwards, S. (2021). Cyber-safety and COVID-19 in the early years: A research agenda. *Journal of Early Childhood Research*. <https://doi.org/10.1177/1476718X211014908>
- Escobar-Pérez, J., & Cuervo-Martínez, A. (2008). Validez de contenido y juicio de expertos: Una aproximación a su utilización. *Avances en Medicina*, 6, 27–36.
- Fox, A. K., & Hoy, M. G. (2019). Smart devices, smart decisions? Implications of parents' sharenting for children's online privacy: An investigation of mothers. *Journal of Public Policy & Marketing*, 38(4), 414–432. <https://doi.org/10.1177/0743915619858290>
- Garitaonandia, C., Karrera-Xuarros, I., Jimenez-Iglesias, E., & Larrañaga, N. (2020). Menores conectados y riesgos online: Contenidos inadecuados, uso inapropiado de la información y uso excesivo de internet. *Profesional de La Información*, 29(4), 1–10. <https://doi.org/10.3145/EPL2020.JUL.36>
- Garmendia, M., Martínez, G., & Garitaonandia, C. (2021). Sharenting, parental mediation and privacy among Spanish children. *European Journal of Communication*. <https://doi.org/10.1177/02673231211012146>
- Glorigorjević, J. (2019). Children's privacy: The role of parental control and consent. *Human Rights Law Review*, 19(2), 201–229. <https://doi.org/10.1093/HRLR/NGZ004>
- Goanta, C., & Wildhaber, I. (2019). In the business of influence: Contractual practices and social media content monetisation. *Schweizerische Zeitschrift Für Wirtschafts-Und Finanzmarktrecht*, 91, 346–357.
- Guadagnoli, E., & Velicer, W. F. (1988). Relation of sample size to the stability of component patterns. *Psychological Bulletin*, 103(2), 265–275. <https://doi.org/10.1037//0033-2909.103.2.265>
- Hernández, R., Fernández, C., & Baptista, P. (2016). *Metodología de la investigación* (6ª edición). McGraw-Hill – Interamericana de México.
- Hinojo-Lucena, F. J., Aznar-Díaz, I., Cáceres-Reche, M. P., Trujillo-Torres, J. M., & Romero-Rodríguez, J. M. (2020). Sharenting: Internet addiction, self-control and online photos of underage children. *Comunicar*, 28(64), 97–108. <https://doi.org/10.3916/C64-2020-09>
- Holiday, S., Norman, M. S., & Densley, R. L. (2020). Sharenting and the extended self: Self-representation in parents' Instagram presentations of their children. *Popular Communication*. <https://doi.org/10.1080/15405702.2020.1744610>
- Jorge, A., Marópo, L., Coelho, A. M., & Novello, L. (2021). Mummy influencers and professional sharenting. *European Journal of Cultural Studies*. <https://doi.org/10.1177/13675494211004593>
- Kaesling, K. (2021). Children's digital rights: Realizing the potential of the CRC. *Global Reflections on Children's Rights and the Law*, 183–196. <https://doi.org/10.4324/9781003131144-22>
- Kaur, S., & Kumar, S. (2021). How sharenting drives sherub marketing: Insights from an interpretative phenomenological perspective. *Journal of Research in Interactive Marketing*. <https://doi.org/10.1108/JRIM-06-2020-0128>
- Klucarova, S., & Hasford, J. (2021). The oversharenting paradox: When frequent parental sharing negatively affects observers' desire to affiliate with parents. *Current Psychology*, 1–10. <https://doi.org/10.1007/S12144-021-01986-Z>
- Kopecký, K., & Szołkowski, R. (2018). *Parents and fatherhood in the digital age*. Olomouc.
- Kopecký, K., Szołkowski, R., Aznar-Díaz, I., & Romero-Rodríguez, J. M. (2020). The phenomenon of sharenting and its risks in the online environment. Experiences from Czech Republic and Spain. *Children and Youth Services Review*, 110, Article 104812. <https://doi.org/10.1016/j.chilcyouth.2020.104812>
- Kravchuk, N. (2021). Privacy as a new component of "the best interests of the child" in the new digital environment. *The International Journal of Children's Rights*, 29(1), 99–121. <https://doi.org/10.1163/15718182-29010006>
- Latipah, E., Kistoro, H. C. A., Hasanah, F. F., & Putranta, H. (2020). Elaborating motive and psychological impact of sharenting in millennial parents. *Universal Journal of Educational Research*, 8(10), 4807–4817. <https://doi.org/10.13189/ujer.2020.0810.52>
- Lazard, L., Capdevila, R., Dann, C., Locke, A., & Roper, S. (2019). Sharenting: Pride, affect and the day-to-day politics of digital mothering. *Social and Personality Psychology Compass*, 13(4), Article e12443. <https://doi.org/10.1111/SPC3.12443>
- Leaver, T. (2020). Balancing privacy: Sharenting, intimate surveillance, and the right to be forgotten. *The Routledge Companion to Digital Media and Children*, 235–244. <https://doi.org/10.4324/9781351004107-22>
- Ledesma, R., Molina, G., & Valero, P. (2002). Análisis de consistencia interna mediante Alfa de Cronbach: Un programa basado en gráficos dinámicos. *Psico-USF*, 7(2), 143–152. <https://doi.org/10.1590/s1413-817212004000100005>
- Lipu, M., & Siibak, A. (2019). "Take it down!": Estonian parents' and pre-teens' opinions and experiences with sharenting. *Media International Australia*, 170(1), 57–67. <https://doi.org/10.1177/1329878X19828366>
- Malo-Cerrato, S., Martín-Perpiñá, M.-M., & Viñas-Poch, F. (2018). Uso excesivo de redes sociales: Perfil psicosocial de adolescentes españoles. *Grupo Comunicar*, 26(56), 101–110. <https://doi.org/10.3916/C56-2018-10>
- Marasli, M., Suhendan, E., Yilmazturk, N. H., & Cok, F. (2016). Parents' shares on social networking sites about their children: Sharenting. *The Anthropologist*, 24, 399–406. <https://doi.org/10.1080/09720073.2016.11892031>
- Marasli, M., Suhendan, E., Yilmazturk, N. H., & Cok, F. (2017). Parents' shares on social networking sites about their children: Sharenting. *The Anthropologist*, 24(2), 399–406. <https://doi.org/10.1080/09720073.2016.11892031>
- Muñoz-Cantero, J. M., Rebollo-Quintela, N., Mosteiro-García, J., & Ocampo-Gómez, C. I. (2019). Validación del cuestionario atribuciones para la detección de coincidencias en trabajos académicos. *RELIEVE*, 25(1), 4. <https://doi.org/10.7203/relieve.25.1.13599>
- Nabila, A., Azhar, M., Shuhaiza, A., & Salleh, M. (2021). Sharenting during covid-19 pandemic: Yay or nay. *International Journal of Law, Government and Communication (IJLGC)*, 6(22), 159–167. <https://doi.org/10.35631/IJLGC.6220015>
- Otero, P. (2017). Sharenting... should children's lives be disclosed on social media? *Archivos Argentinos de Pediatría*, 115(5), 412–414.
- Ouvrein, G., & Verswijvel, K. (2019). Sharenting: Parental adoration or public humiliation? A focus group study on adolescents' experiences with sharenting

- against the background of their own impression management. *Children and Youth Services Review*, 99, 319–327. <https://doi.org/10.1016/J.CHILDYOUTH.2019.02.011>
- Pineda, L. O., & Jiménez, S. C. (2020). Amenazas a la privacidad de los menores de edad a partir del Sharenting. *Revista Chilena de Derecho y Tecnología*, 9(2), 105–130. <https://doi.org/10.5354/0719-2584.2020.55333>
- Piulachs-Castrillo, A. (2018). *Sharenting y límites éticos en la era 2.0.: análisis de la situación y casos españoles en la plataforma YouTube*. In *Publicitat i Relacions Públiques*. <http://ddd.uab.cat/record/196081>.
- Prakash, A. (2019). Parental role in creation and preservation of digital identity of children. *Test Engineering & Management*, 81, 4907.
- Ranzini, G., Newlands, G., & Lutz, C. (2020). Sharenting, peer influence, and privacy concerns: A study on the instagram-sharing behaviors of parents in the United Kingdom. *Social Media Society*, 6(4). <https://doi.org/10.1177/2056305120978376>
- Romero-Rodríguez, J. M., Marín, J. A., Hinojo-Lucena, F. J., & Gómez, G. (2021). An explanatory model of problematic internet use of southern Spanish University students. *Social Science Computer Review*. <https://doi.org/10.1177/0894439321998650>
- Sarkadi, A., Dahlberg, A., Fångström, K., & Warner, G. (2020). Children want parents to ask for permission before 'sharenting'. *Journal of Paediatrics and Child Health*, 56(6), 981–983. <https://doi.org/10.1111/JPC.14945>
- Siegel, L., Dorie, A., & Loranger, D. P. (2020). The brat pack: Mini-influencers on the internet. *International Textile and Apparel Association Annual Conference Proceedings*, 77(1), 1–3. <https://doi.org/10.31274/ITAA.12227>.
- Siibak, A., & Traks, K. (2019). The dark sides of sharenting. *Catalan Journal of Communication and Cultural Studies*, 11(1), 115–121. [https://doi.org/10.1386/CJCS.11.1.115\\_1](https://doi.org/10.1386/CJCS.11.1.115_1)
- Sivak, E., & Smirnov, I. (2019). Parents mention sons more often than daughters on social media. *Proceedings of the National Academy of Sciences*, 116(6), 2039–2041. <https://doi.org/10.1073/PNAS.1804996116>
- Steinberg, S. (2016). Sharenting: Children's privacy in the age of social media. *University of Florida Levin College of Law Research Paper*, 16(04), 1–47.
- Straub, D. W. (1989). Validating instruments in MIS research. *MIS Quarterly*, 13(2), 147–169. <https://doi.org/10.2307/248922>
- Verswijvel, K., Walrave, M., Hardies, K., & Heirman, W. (2019). Sharenting, is it a good or a bad thing? Understanding how adolescents think and feel about sharenting on social network sites. *Children and Youth Services Review*, 104, Article 104401. <https://doi.org/10.1016/j.chilyouth.2019.104401>
- Von Teschenhausen Eberlin, F. B. (2017). Sharenting, liberdade de expressão e privacidade de crianças no ambiente digital: O papel dos provedores de aplicação no cenário jurídico brasileiro. *Revista Brasileira de Políticas Públicas*, 7(3), 256–273. <https://doi.org/10.5102/rbpp.v7i3.4821>
- Wachs, S., Mazzone, A., Milosevic, T., Wright, M. F., Blaya, C., Gámez-Guadix, M., & O'Higgins Norman, J. (2021). Online correlates of cyberhate involvement among young people from ten European countries: An application of the Routine Activity and Problem Behaviour Theory. *Computers in Human Behavior*, 123, Article 106872. <https://doi.org/10.1016/j.chb.2021.106872>
- Wagner, A., & Gasche, L. A. (2018). Sharenting: Making decisions about other's privacy on social networking sites. *Multikonferenz Wirtschaftsinformatik, MKWI, 2018*, 977–988.
- Wolf, R. D. (2020). Contextualizing how teens manage personal and interpersonal privacy on social media. *New Media & Society*, 22(6), 1058–1075. <https://doi.org/10.1177/1461444819876570>
- Young, K. S. (1998). *Caught in the net: How to recognize the signs of Internet addiction – And a winning strategy for recovery*. John Wiley & Sons Inc.