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Differences in Behaviors, Motivations, and Attitudes Towards Sexting in Youth: A Comparison Between 2017 and 2023

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ABSTRACT

Background: Sexting is a phenomenon that has transformed people's sexual interactions. Nevertheless, few studies have assessed these changes over time. The aim of this study was to analyze the differences in behaviors, motivations and attitudes towards sexting between two groups of young people assessed at two different times: 2017 (Sexting group; SG17) and 2023 (Sexting group; SG23). **Method:** The Sexting Behaviors Scale, Sexting Motivations Scale, and Sexting Attitudes Scale were administered to 1246 Spanish youths (51.4% female and 48.6% male) aged 17-25 years ($M = 20.36$, $SD = 2.45$). **Results:** SG23 shared sexual images or messages on social networks more frequently and reported a higher frequency in eight of the ten assessed motivations for practice sexting. Being part of SG23 was also associated with an increased tendency to hold a positive attitude towards sexting within the context of a relationship and a reduced perception of the associated risks. **Conclusions:** This study highlights the swift evolution of sexual trends in the digital era. It is essential to understand these changes in order to design up-to-date preventive strategies aimed at mitigating potential adverse effects of sexting on mental health.

Diferencias en Conductas, Motivaciones y Actitudes Hacia el Sexting Entre Jóvenes: una Comparación Entre 2017 y 2023

RESUMEN

Antecedentes: El sexting es un fenómeno que ha transformado las interacciones sexuales entre personas. Sin embargo, pocos estudios han evaluado estos cambios a lo largo del tiempo. El objetivo de esta investigación fue analizar las diferencias en conductas, motivaciones y actitudes hacia el sexting entre dos grupos de jóvenes evaluados en dos momentos diferentes: uno en 2017 (Sexting group; SG17) y otro en 2023 (Sexting group; SG23). **Método:** Se administró las Sexting Behaviors Scale, Sexting Motivations Scale, y Sexting Attitudes Scale a 1246 jóvenes españoles (51.4% mujeres y 48.6% hombres) de entre 17 y 25 años ($M = 20.36$, $DT = 2.45$). **Resultados:** El SG23 compartió imágenes o mensajes sexuales en redes sociales más frecuentemente e informó de una mayor frecuencia en ocho de las diez motivaciones para practicar sexting. Formar parte del SG23 también se asoció con una mayor tendencia a mantener una actitud positiva hacia el sexting en el contexto de una relación y una menor percepción de los riesgos asociados. **Conclusiones:** Este estudio evidencia la rápida evolución de las tendencias sexuales en la era digital. Es esencial comprender estos cambios para diseñar estrategias preventivas dirigidas a mitigar los potenciales efectos adversos del sexting sobre la salud mental para aliviar el deterioro cognitivo en poblaciones mayores.

Palabras clave:

Sexting
Conductas
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Sexting is defined as the sending, receiving, or forwarding of sexually explicit text messages, photographs, or videos, typically using electronic devices, where people can engage either actively or passively (Barrense-Dias et al., 2017). Exchanging sexual content is not a new phenomenon, especially when it occurs through text messages. However, modern technological advances have led to a transformation in the frequency and manner of this behavior, creating the new term and construct of “sexting”. The widespread use of smartphones and the internet has enabled and normalized the creation and dissemination of sexual content (Van Ouytsel et al., 2019). This normalization can be observed in the sexting prevalence data which, although it may have stabilized in general in recent years (Mori et al., 2022), can vary and depend greatly on the kind of practice assessed. In this sense, Klettke et al. (2014) conducted a systematic review involving samples of teenagers and young adults, revealing a prevalence of sexting ranging from 2.5% to 81% depending on the kind of sexting behavior. More recent meta-analyses, such as Mori et al. (2020), found that prevalence among the different types of practices in emerging adults depends, in part, on the existence of consent. Consensually sexting behaviors had a higher mean prevalence, 38.3% for sending sexts, 41.5% for receiving sexts, and 47.7% for reciprocal sexts, while non-consensual sexting had a lower prevalence, 15% for forwarding sexts without consent and 7.6% for having sexts forwarded without consent. The divergence between the data of these studies could be due to methodological differences. For example, in the study by Klettke et al. (2014) they evaluate specific aspects of each practice, such as the format of the sext (e.g., photos, videos, texts, etc.), but not consent. In Spain, prevalence figures would range from 13.5% to 61%. Although studies conducted in this country show some discrepancies, they seem to indicate that the prevalence of sexting increases with age, that receiving sexts is more frequent than sending them, and that sexting is more frequent when it involves a romantic partner (Gámez-Guadix et al., 2015, 2017; Gil-Llario et al., 2020a, 2021; Molla-Esparza et al., 2021). As in the studies mentioned above, the variability of these data would depend on factors such as the type of practice evaluated and others such as the sociodemographic and contextual characteristics of the sample and the methodology employed. In this regard, the scientific literature has identified key characteristics of people who are more likely to engage in sexting. These include being male, being an adult or late teenager, belonging to a sexual minority, being in a romantic relationship, or being part of a broken family, among others (Ballester-Arnal et al., 2017; Giménez-García et al., 2020; Klettke et al., 2014; Molla-Esparza et al., 2021; Mori et al., 2020; Rice et al., 2012). Likewise, a clear example of how context can affect the prevalence of sexting could be observed during the COVID-19 pandemic. The period of lockdown stemming from this global crisis temporarily reshaped interpersonal dynamics, leading to a notable increase in online sexual activity (Ballester-Arnal et al., 2023, 2024; Nebot-García et al., 2023). Methodological considerations show that, studies that use randomized sampling and those that assess respondents’ active participation in sexting behaviors tend to report lower prevalence rates of sexting. However, these figures increase in studies that employ convenience sampling or use instruments that assess passive participation in sexting (Barrense-Dias et al., 2017; Klettke et al., 2014). Also, participants’ subjectivity could bias prevalence data, as there are interpersonal differences in the belief of what constitutes sexting behavior. For instance, some people do

not consider sending sexual content through text messages to be sexting (Barrense-Dias et al., 2019). It should be noted that sexting is a diverse and complex phenomenon. Its objective assessment is complicated by a lack of consensus within the scientific community and a limited societal understanding of its conceptualization.

Despite the discrepancies observed in the scientific literature on the conceptualization and prevalence of sexting, there does seem to be consensus on its consequences. Sexting can have both benefits and drawbacks for those who engage in it, but this largely depends on whether sexting is consensual or non-consensual. In general, consensual sexting has been associated with benefits such as improved sexual satisfaction, body image satisfaction, fun, sexual function, intimacy and trust in the romantic relationship, and emotional expression (Cooper et al., 2016; Hudson & Marshall, 2018). However, non-consensual sexting has been shown to have a negative impact on the physical and mental health of those who have experienced it. In this regard, scientific literature identified in a systematic review several negative consequences arising from non-consensual sexting such as the use of sexts for ridicule, revenge, blackmail, or seeking peer approval, sexual victimization, as well as problems arising in professional, academic, or interpersonal settings, legal troubles stemming from the creation and distribution of non-consensual or underage pornography, and mental health problems including anxiety, depression, non-suicidal self-injuries (NSSI), and suicidal behavior (Cooper et al., 2016; Doyle et al., 2021; Wright & Wachs, 2024).

Motivations and attitudes towards any behavior are explanatory factors of that behavior, and sexting is no exception. Therefore, understanding them can help shed light on this phenomenon. In this regard, the main motivations found by various researchers for engaging in this behavior were to enhance intimacy with a partner, satisfy a partner, explore one’s sexuality, peer pressure, flirtation, cope with negative emotional states such as boredom, or simply because one wanted to do it (Gil-Llario et al., 2020a, 2020b; Greer et al., 2022; Van Ouytsel et al., 2017). Furthermore, favorable attitudes towards sexting promote the normalization of this kind of behavior and are positively correlated with both current sexting behavior and the intention to engage in sexting in the future (Klettke et al., 2014). Studies such as the one conducted by Gil-Llario et al. (2020a) support these findings, suggesting that people who have engaged in sexting generally hold more favorable attitudes towards it compared to those who have not. Even within the group of people who are engaged in sexting, some authors have found that those who do it frequently and who share more explicit sexual content have more favorable attitudes (Champion & Pedersen, 2015). Taking research in this field one step further, Confalonieri et al. (2020) used structural equation modeling to analyze a possible causal relationship between attitude towards sexting and sexting behaviors. The findings of these authors established a direct and negative causal relationship between negative attitudes towards sexting and the sending of sexts, both in text and multimedia image format.

The phenomenon of sexting advances hand in hand with technology and social media (Barrense-Dias et al., 2017). It is in continuous evolution, changing rapidly and transforming the way people interact in their sexual relationships. Nevertheless, although recent meta-analytic studies such as Mori et al. (2022) analyzed the evolution of sexting behaviors in recent years, no study has been found that has evaluated this evolution in the motivational and

attitudinal trends associated with sexting in Spain. Therefore, the main aim of this research was to analyze differences in the frequency of various kinds of sexting behavior, as well as motivations and attitudes towards sexting, among two groups of Spanish youth assessed at two different time points: one in 2017 (SG17) and the other in 2023 (SG23). With this objective in mind, the following hypothesis was formulated: SG23 will engage in a greater number of sexting behaviors, and will have more motivations and more favorable attitudes towards sexting compared to SG17.

Method

Participants

The initial sample included 1367 young people of Spanish nationality from various Secondary Schools and Universities in the Comunidad Valenciana (Spain). 121 participants who had not engaged in any sexting practices were excluded. Consequently, the final sample consisted of 1246 Spanish youths (605 males and 641 females) aged between 17 and 25 years ($M_{age} = 20.36, SD = 2.45$). Most of the participants were enrolled university students (56.7%), reported being heterosexual (71.9%), and just over half (51.4%) reported currently being in a romantic relationship. The total sample was divided into two subsamples, depending on the year in which the assessment was conducted: one group assessed in 2017 (SG17) and another in 2023 (SG23). SG17 consisted of 630 youths (68.9% male and 31.1% female; $M_{age} = 20.96, SD = 2.49$), while SG23 consisted of 616 (72.2% female and 28.8% male; $M_{age} = 19.76, SD = 2.24$). Statistically significant differences were found in all sociodemographic variables between groups: age ($t = 8.938, p < .001, d = -0.51$), gender ($\chi^2 = 210.92, p < .001, V = .41$), sexual orientation ($\chi^2 = 38.85, p < .001, V = .19$), educational level ($\chi^2 = 9.21, p = .002, V = .09$), and current relationship status ($\chi^2 = 36.79, p < .001, V = .18$). Compared to SG23, SG17 had a slightly higher mean age, included more males, had a higher number of heterosexual people, consisted of more university students, and reported currently being in a romantic relationship less frequently (Table 1).

Instruments

All participants in the sample were assessed using the same instruments:

Sociodemographic Information Questionnaire. This ad hoc tool was used to collect information related to the sociodemographic characteristics of the sample. These variables include age, gender, educational level, sexual orientation, and current relationship status. Gender was assessed by an item with three response options (i.e., “I feel”: (1) Male, (2) Female, (3) None of these options represent me) and sexual orientation with an item with 6 response options (i.e., “What sexual orientation do you identify with?”: (1) Heterosexuality, (2) Homosexuality, (3) Bisexuality, (4) Pansexuality, (5) Asexuality, (6) Questioning).

Sexting Behaviors Scale (Dir et al., 2013). This is a Spanish adaptation of the original self-report scale consisting of seven items that assess the kind of sexting behavior. Of these items, five are Likert-type with five response options (1 = *never* to 5 = *often*), and two are open-ended. In the present study, only the five Likert-type items were employed: “Have you received sexual text messages or images via SMS, WhatsApp, Snapchat, or the Internet?” “Have you responded to sexual text messages or images that you received?” “Have you sent sexual text messages or photos via SMS, WhatsApp,

Snapchat, or the Internet?” “Has someone responded to a sexual text messages or images that you sent them?” “Have you publicly posted sexual images or text messages on Facebook, Twitter, Myspace, etc.?” The Cronbach’s alpha of the instrument in this study was .83.

Sexting Motivations Scale (Drouin & Tobin, 2014; Spanish version of Gil-Llario et al., 2020b). This tool assesses the motivations for engaging in sexting. It consists of 10 items with Likert-type response options ranging from 1 = *never* to 5 = *always*. The 10 reasons for engaging in sexting assessed with this instrument are: “to show off”, “just because”, “because the boy/girl I liked asked me to”, “I engaged in sexting because I wanted to establish intimacy with the boy/girl I like”, “because I was bored”, “because I felt lonely”, “because I wanted to be like my friends”, “because I was under the influence of drugs”, “because I wanted to avoid an argument”, and “because interesting people do it”. The Cronbach’s alpha of the instrument in this study was .72.

Sexting Attitudes Scale (Weisskirch & Delevi, 2011), Spanish adaptation by Rodríguez-Castro et al. (2017). This scale consists of 14 items with Likert-type responses that assess attitudes towards sexting. Item scores range from 1 = *completely false* to 6 = *completely true*. Therefore, scores on this instrument can range from 14 to 84. Some examples of the items are: “Sexting is just a way of flirting”, “Sexting is exciting”, “Sexting is a normal part of romantic relationships”, “Sexting could cause me problems in the future”, or “Sending racy pictures leaves me vulnerable”. Higher scores on this scale indicate a more favorable attitude towards sexting. The Cronbach’s Alpha for the scale in this study was .80.

Procedure

First, approval of the study and the corresponding permits were requested from the [anonymized]. Subsequently, the directors and administrators of various academic institutions in [anonymized] (secondary schools and universities) were contacted to inform them of the objective of the research and to assess the possibility of their participation. In the case of the secondary schools, approval was also obtained from the School Council (made up of teachers and staff from the schools and the students’ families). After approval of the project by the different institutions mentioned above, in the case of minors, informed consent was also obtained from their legal guardians. In addition, prior to the start of the evaluations, both high school students and university students provided their own consent for participation. The informed consent included the research objectives, the implications of participation, and the voluntary and anonymous nature of participation. The complete assessment tool was developed and administered online through the Qualtrics International Inc. survey platform. Assessments in secondary schools were conducted in groups using the computers in the school’s computer labs and were supervised by psychologists specializing in clinical evaluation. In the case of university students, the project was advertised through posters that were distributed at various locations throughout the university. These posters not only provided information about the project but also included a link and a QR code, allowing interested students to participate in the study. The same procedure was followed for samples SG17 and SG23. This project was approved by the Conselleria d’Educació, Universitats i Ocupació de la Generalitat Valenciana, and by the Ethics and Research Integrity Committee of the Universitat Jaume I de Castellón.

Data Analysis

SPSS Statistics v.29 was employed for data analysis. Sociodemographic characteristics of the sample and frequency of sexting behavior were assessed through descriptive analysis and frequencies including variables such as age, gender, and frequency of sending of sexual images. A Student's *t*-test was conducted to compare quantitative variables (i.e., the total score of Sexting Attitude Scale) and a Mann-Whitney *U* test was employed to examine differences between groups in ordinal variables such as the items of the Sexting Behaviors Scale, the Sexting Motivations Scale, and the Sexting Attitudes Scale. A Chi-squared test was used to analysis in nominal variables (i.e., gender and educational level). Cohen's *d* was used to calculate effect size for parametric tests (Student's *t*), and for non-parametric tests (Mann-Whitney *U* and Chi-square), Rosenthal's *r* and Cramer's *V* were used, respectively. Regression analyses were performed considering the instrument items as dependent variables to control for the effect of possible covariates (i.e., gender, sexual orientation, educational level, age, and having a romantic partner) on intergroup differences between SG17 and SG23. Binary logistic regression with forward selection was employed to assess this influence on sexting behaviors and motivations for sexting. To achieve this, dependent variables were simplified, changing them from ordinal to nominal (two categories). Responses to the Sexting Behaviors Scale and the Sexting Motivations Scale items categorized as "never" were coded as 0, as they indicated no behavior or motivation, and the rest as 1. In the case of the Sexting Attitudes Scale, none of the item response options could be categorized as no attitude, so in this case an ordinal regression was performed. Dummy variables were created for independent variables incorporated in the regression models with more than two categories (i.e., sexual orientation). The effect size of the regressions was assessed using the odds ratio.

Table 1
Sociodemographic Characteristics of the Samples

Variable		SG17 ^a	SG23 ^b	Total sample	<i>p</i> -value
Age	<i>M</i>	20.96	19.76	20.36	<.001
	<i>SD</i>	2.49	2.24	2.45	
Gender			%		
	Men	68.9	27.8	48.6	<.001
	Women	31.1	72.2	51.4	
	Heterosexual	76.9	67.7	71.9	
Bisexual	15.5	22.1	19.1		
Sexual orientation	Homosexual	7.2	4.2	5.5	<.001
	Other	0.4	6	3.5	
	Secondary education	39	47.6	43.3	
Educational level	University education	61	52.4	56.7	.002
Romantic partner	Yes	43.4	61.6	51.4	<.001
	No	56.6	38.4	48.6	

Note. SG17 = sexting group 2017; SG23 = sexting group 2023.

^a*n* = 630. ^b*n* = 616. *N* = 1246.

Results

Most Frequent Sexting Behaviors

Statically significant differences were found between SG17 and SG23 in responding to sexual text messages or images received, with this behavior being more frequent in SG17 ($U = 173389$, $p < .001$, $r = -.09$); and in publicly posting sexual images or texts, which was more frequent in the SG23 ($U = 175561.50$, $p < .001$, $r = -.13$). However, it should be noted that the effect size was small in both cases. No statistically significant differences were found in the remaining sexting practices assessed (Table 2).

Sexting Motivations

Comparing the groups, statistically significant differences were found in all motivations for sexting, except for wanting to be like their friends ($U = 93421$, $p = .060$, $r = -.06$) and being under the influence of drugs ($U = 94513$, $p = .401$, $r = -.03$). In all cases where differences were found, SG23 scored higher. However, the size of the differences in all cases was small (Table 3).

Attitude Towards Sexting

Regarding attitudes towards sexting, statistically significant differences were not found between the groups in the overall scale ($t = -0.805$, $p = .421$, $d = -0.05$). Nevertheless, statistically significant differences were found between both groups on a large portion of the items when analyzed separately. SG17 reported more favorable attitude on the items "Sexting is just a way of flirting" ($U = 178422.50$, $p = .015$, $r = -.07$), "Sexting could cause me problems in the future" ($U = 178917$, $p = .014$, $r = -.07$), "Sending sexual texts messages is a bit risky" ($U = 172496$, $p < .001$, $r = -.07$), and "I share sexual photos/videos I receive with my friends" ($U = 171789$, $p < .001$,

$r = -.15$). SG23 group obtained higher scores on the items “Sexting is a normal part of romantic relationships” ($U = 169893.50, p < .001, r = -.11$), “My romantic partner expects me to send him/her naughty texts messages” ($U = 182042.50, p = .042, r = -.06$), and “Sexting enhances my relationship with my partner or possible future relationships” ($U = 181619, p = .040, r = -.06$). It is noteworthy that, while SG17 obtained higher scores on some items assessing risk perception, all items on which SG23 scored higher reflect a greater normalization of sexting behavior. It is important to highlight that, in all cases, the size of the differences found was small (Table 4).

Influence of Sociodemographic Variables on Sexting Behavior

Binary logistic regression analyses were conducted to examine the influence of potential covariates on the statistically significant differences found between SG17 and SG23. This allowed us to determine whether scores on the assessed variables (behavior, motivations, and attitude towards sexting) were truly influenced by group membership (SG17 vs SG23) or by other variables. The dependent variables established in the regression models were the behavior, motivations, and attitude in which these intergroup differences were found. Due to the probable influence of sociodemographic variables on sexting practices and the statistically significant differences found between both groups in all variables assessed in this study, age, gender, sexual orientation, educational level, and current romantic relationship status were included in the

models as independent variables. After controlling for covariates, the only sexting behavior that was explained by group membership was publicly posting sexual images or text on social media. Being part of SG23 increased the risk of engaging in this type of behavior ($OR = 2.27$). Regarding motivations, belonging to SG23 also emerged as a risk factor for using sexting as a strategy for showing off ($OR = 2.33$), by a partner’s request ($OR = 1.59$), to establish intimacy with a partner ($OR = 1.41$), due to feeling lonely ($OR = 1.53$), to avoid an argument ($OR = 2.64$), and because interesting people do it ($OR = 3.76$) (Table 5).

Finally, ordinal regression indicated that belonging to SG23 increased the probability of adopting the following attitudes: “Sexting is a normal part of romantic relationships” ($OR = 1.54$), “My romantic partner expects me to send provocative text messages” ($OR = 1.43$), and “Sexting enhances my relationship with my partner or possible future relationships” ($OR = 1.75$). Conversely, being part of SG23 decreased the likelihood of holding attitudes such as: “Sexting could cause me problems in the future” ($OR = 0.56$), “Sending sexual text messages is a bit risky” ($OR = 0.53$), and “I share sexual photos/videos I receive with my friends” ($OR = 0.38$).

Discussion

Behavioral, motivational, and attitudinal tendencies towards sexting of two groups of Spanish youth, assessed in two different periods with a six-year gap between assessments (2017-2023), were analyzed and compared in this study. These findings indicate

Table 2
Intergroup Differences in Sexting Behavior (Mann-Whitney U)

Item	SG17	SG23	U	p-value	r
	Mean Rank				
Receive sexual text messages or images	624.79	620.17	191988	.805	-.01
Respond to sexual text messages or images	656.28	589.98	173389	<.001	-.09
Send sexual text messages or images	631.46	615.36	189026	.401	-.02
Receive responses to sexual images or messages sent	637.89	608.78	184973.50	.139	-.04
Publicly post sexual images or texts messages	594.11	652.50	175561.50	<.001	-.13

Note. SG17 = sexting group 2017; SG23 = sexting group 2023.

Table 3
Intergroup Differences in Motivations for Sexting (Mann-Whitney U)

Item	SG17	SG23	U	p-value	r
	Mean Rank				
To show off	404.92	488.45	78028	<.001	-.21
Just because (no specific reason)	422.24	470.29	86322	.004	-.09
Because the boy/girl I liked asked me to	406.18	483.23	78898	<.001	-.16
To establish intimacy with the with the boy/girl I like	419.37	472.71	84980	.001	-.11
Because I am bored	415.32	476.61	83060.50	<.001	-.14
Because I feel lonely	414.48	477.67	82644.50	<.001	-.17
Because I want to be like my friends	436.27	449.18	93421	.060	-.06
Being under the influence of drugs	446.40	437.60	94513	.401	-.03
To avoid an argument	423.24	457.34	87480	<.001	-.13
Because interesting people do it	434.97	450.81	92783	.005	-.10

Note. SG17 = sexting group 2017; SG23 = sexting group 2023.

Table 4

Intergroup Differences in Attitude Toward Sexting (Mann-Whitney U)

Item	SG17	SG23	U	p-value	r
	Mean Rank				
Sexting is just a way of flirting	646.39	598.15	178422.50	.015	-.07
Sexting is not harmful at all	607.49	639.87	183954.50	.106	-.05
Sexting is fun	624.77	622.20	193238	.897	-.00
Sexting is exciting	630.58	614.26	188350.50	.412	-.02
Sexting is a normal part of romantic relationships	585.10	661.70	169893.50	<.001	-.11
Sexting is no big deal	614.12	632.06	188149.50	.370	-.03
Sexting could cause me problems in the future	645.60	598.95	178917	.014	-.07
Sending sexual text messages is a bit risky	657.70	588.53	172496	<.001	-.07
Sending racy pictures leaves me vulnerable	625.23	620.72	192327.50	.810	-.01
You must be careful about sexting	635.05	611.68	186760.50	.123	-.04
I share the sexts I receive with my friends	658.82	587.38	171789	<.001	-.15
I share the sexts I send with my friends	628.69	618.19	190769.50	.393	-.02
My romantic partner expects me to send him/her naughty text messages	604.46	642.98	182042.50	.042	-.06
Sexting enhances my relationship with my partner or possible future relationships	603.78	643.66	181619	.040	-.06

Note. SG17 = sexting group 2017; SG23 = sexting group 2023.

an increase in the sexting behaviors of responding to sexts and posting sexual content on social networks. Likewise, an increase was observed in most of the motivations assessed for carrying out this type of practice and more favorable attitudes towards the use of sexting in the context of a romantic relationship were observed, as well as a lower perception of risk and a greater normalization of sexting.

When considering differences in sexting behavior between groups, it was observed that posting sexual images or text messages publicly on social media was more prevalent behavior in SG23. A plausible explanation for this phenomenon could be linked to the emergence of new social media platforms, which are employed to generate significant economic gains by creating and disseminating sexual content. An example of this is OnlyFans, which in 2018 introduced the option to share explicit sexual content among its features, and currently boasts over 240 million users worldwide (Fernández, 2024). While it is true that publishing sexual content in exchange for economic benefit would not be considered sexting per se, it is a possible hypothesis that the rise of this type of platforms contributes to normalizing the publication of sexual content in other types of social networks, thus favoring this practice of sexting. Likewise, platforms such as Twitch or X Corp (formerly known as Twitter), among others, have adjusted their policies to allow the posting of sexual content (Hession, 2023; X Corp., 2024). This may also have facilitated the increased use of these platforms to publicly share sexual content.

In terms of intergroup differences in sexting motivations, the SG23 reported higher frequencies in seven out of the 10 assessed motivations. These disparities could potentially be explained by

findings from Mori et al. (2020). According to their research, in recent years, there has been a globalization of smartphone use among adolescents and young adults, which has facilitated the practice and normalization of sexting. This could have increased and diversified motivations for engaging in this behavior. Moreover, it should be noted that between the assessment of one group and another, there was a period of lockdown due to the COVID-19 pandemic, which prompted the use of sexting as an alternative to maintain an active sexual life at a distance. Ballester-Arnal et al. (2021) and Lehmillier et al. (2020) found that during the lockdown period, there was an increase in online sexual behavior, which was integrated into the repertoire of sexual practices. Therefore, considering the arguments of Mori et al. (2020), the use of sexting during the lockdown may have influenced a greater normalization of this type of behavior in SG23, thus explaining, at least in part, the presence of a wide variety of reasons for engaging in it.

Regarding attitudinal differences between groups, SG23 indicated having a more favorable attitude towards sexting within the context of romantic relationships, attitudes that denote a lower perception of risk, and less favorable attitudes towards sharing received photos/videos with their friends. These differences could again be due to the influence of the normalization of sexting. In the first case, according to Bianchi et al. (2021), the COVID-19 lockdown would have favored the use of sexting with the aim of maintaining social and sexual relationships at a distance with romantic partners. Therefore, it is possible that SG23 group may have incorporated sexting into their usual repertoire of coupled sexual behavior, facilitating the development of a more favorable attitude towards sexting. In the second case, if we assume that the SG23 group has normalized

sexting practices influenced by the pandemic and the evolution of social media towards the promotion of online erotic content, it seems plausible that people in this group may have more difficulty perceiving this behavior as potentially harmful. The relationship between normalization and risk perception has been observed in intimate partner violence. Ruiz-Palomino et al. (2021) indicated the existence of a negative relationship between the normalization of relationship violence and the perception of such behavior as injurious. Another potential explanation for these intergroup differences is that the normalization of sexting may have encouraged a sense of self-efficacy regarding the control and management of associated risks. In this regard, Kang et al. (2024) found a negative correlation between self-efficacy and risk perception, which ultimately could influence the adoption of preventive strategies for health care. Lastly, a potential hypothesis for the less favorable attitude towards sharing received sexts by SG23 could be that habituation to this type of content, because of repeated exposure, may have led to a decrease in interest and excitatory response to it. These stimuli may have lost their novelty and ceased to act as behavior reinforcers, a process previously described by Abalo-Rodríguez et al. (2023) in the context of exposure to sexual stimuli found in pornography. However, it is important to note that interpretations of the attitudinal differences found, while supported by scientific literature, are based on hypotheses that require further investigation in future research.

Our findings suggest that, in recent years, the number of motivations for sexting has increased, as well as the adoption of more favorable attitudes and a lower risk perception towards this practice among young Spaniards. According to the scientific literature, these aspects would have a relevant role in the sexual and mental health of people who practice sexting, and may cause harm, but also provide some benefits that should be further explored in the coming years. In this sense, one of the negative consequences would be linked to the increased motivation to practice sexting in conflictive situations or situations associated with negative emotional states, such as loneliness. Previous studies such as Houck et al. (2014) have already addressed this issue from the perspective of emotional regulation, finding that people who engage in sexting have more difficulties in identifying and managing emotions. Our findings indicate that, in recent years, the use of sexting as an emotional regulator in the presence of unpleasant situations or emotions has increased among young Spaniards. Other potential harms would come from the reduction in the perception of risk associated with sexting. Low risk perception could have a negative impact on the evaluation of possible risks derived from this practice, which would increase the vulnerability of those who practice it to potentially harmful experiences, such as sexual victimization, blackmail, harassment, etc. (Ahern & Mechling, 2013). However, as mentioned succinctly, these findings also suggest the existence of potential positive

consequences derived from sexting. In this sense, as mentioned by Le et al. (2023), a greater openness towards these practices in the context of a romantic couple could favor the incorporation of new sexual experiences, thus enriching the diversity of interactions and improving both intimacy and the quality of the relationship. Also, in this context, sexting could favor long-distance relationships, as observed by Bianchi et al. (2021) during the COVID-19 lockdown. In this sense, even among migrants, sexting could be a way to promote the establishment and consolidation of interpersonal relationships at a distance. However, there is still little research on this subject, so it would be interesting to continue studying this phenomenon.

This research is not devoid of limitations, and therefore the data should be interpreted with caution. Some of the most notable limitations include the use of a non-probabilistic sampling method, a cross-sectional design, and the use of assessment instruments that do not contain control items. This would imply difficulties in generalizing the research results and the inability to establish causality between the study variables, in contrast to longitudinal studies. Additionally, another limitation encountered was the difference in various sociodemographic variables between the comparison groups. However, in this case, their potential influence was mitigated through regression analyses in which they were incorporated as covariates.

Despite the acknowledged limitations, we consider this exploratory study to be pioneering as it is the first conducted in Spain to analyze the evolution of sexting in recent years. It represents an initial step that invites future research aimed at studying the transformation of sexual relationships in the current context longitudinally, particularly at a historical moment when technology has changed the way people socially and sexually relate. Over a brief period, this study has identified several behavioral, motivational, and attitudinal shifts related to sexting. These changes highlight humanity's rapid adaptation to technological advances and emphasize the importance of continuous vigilance within the scientific community to prevent potential negative outcomes associated with emerging sexual trends. Likewise, this research observes how repetitive exposure to certain sexual content can result in its normalization, which decreases risk perception and increases vulnerability to experience harmful effects. In this regard, the introduction of sexual education programs tailored for adolescents would be beneficial, as adolescence is the developmental stage where engagement in such sexual practices begins. These programs should comprehensively address both the positive and negative aspects of sexting, along with other behaviors relevant to sexual contexts, promoting clarity and understanding among adolescents.

Table 5
Binary Logistic Regression with Forward Selection to Analyze the Influence of Covariates in Sexting Behavior and Motivations for Sexting

Variable	β	SE	Wald	p-value	OR	95% CI for OR		R ²
						LL	UL	
Sexting behavior								
Respond to sexual text messages or images								
Constant	-1.98	.69	8.07	.005	0.14			
Gender (male = ref. +)	-0.52	.16	10.91	<.001	0.59	0.44	0.81	.063
Sexual orientation (heterosexual = ref. +)	0.48	.18	6.84	.009	1.61	1.13	2.30	
Age (in years)	0.16	.03	23.11	<.001	1.18	1.10	1.26	
Publicly posted sexual images or texts messages								
Constant	-2.16	.20	111.79	<.001	0.12			
Sexting group membership (SG17 = ref. +)	0.77	.20	15.63	<.001	2.16	1.48	3.17	.119
Sexual orientation (heterosexual = ref. +)	1.09	.19	33.93	<.001	2.97	2.06	4.29	
Educational level (Secondary = ref. +)	-0.67	.19	12.92	<.001	0.51	0.35	0.74	
Motivations for sexting								
To show off								
Constant	-1.57	.14	118.53	<.001	0.21			
Sexting group membership (SG17 = ref. +)	0.84	.18	23.20	<.001	2.36	1.65	3.26	.066
Sexual orientation (heterosexual = ref. +)	0.48	.18	6.97	.008	1.61	1.13	2.29	
Just because (no specific reason)								
Constant	1.93	.71	7.46	.006	6.89			
Sexual orientation (heterosexual = ref. +)	0.40	.17	5.47	.019	1.50	1.07	2.10	.020
Age (in years)	-0.08	.03	5.11	.024	0.93	0.87	0.99	
Because the boy/girl I liked asked me to								
Constant	0.04	.12	0.11	.740	1.04			
Sexting group membership (SG17 = ref. +)	0.44	.16	7.44	.006	1.56	1.13	2.14	.037
Romantic relationship (no = ref. +)	0.42	.16	6.83	.009	1.52	1.11	2.09	
To establish intimacy with the with the boy/girl I like								
Constant	0.17	.12	1.99	.158	1.19			
Sexting group membership (SG17 = ref. +)	0.33	.17	4.04	.044	1.39	1.01	1.92	.036
Romantic relationship (no = ref. +)	0.52	.16	10.04	.002	1.68	1.22	2.32	
Because I am bored								
Constant	-0.49	.09	28.34	<.001	0.61			
Sexual orientation (heterosexual = ref. +)	0.61	.17	13.80	<.001	1.85	1.34	2.56	.026
Because I feel lonely								
Constant	-1.35	.13	109.89	<.001	0.26			
Sexting group membership (SG17 = ref. +)	0.42	.18	5.56	.018	1.51	1.07	2.14	.012
To avoid an argument								
Constant	-2.81	.23	156.12	<.001	0.06			
Sexting group membership (SG17 = ref. +)	0.97	.27	12.37	<.001	2.62	1.53	4.49	.040
Because interesting people do it								
Constant	-4.10	.41	99.35	<.001	0.02			
Sexting group membership (SG17 = ref. +)	1.32	.47	7.80	.005	3.74	1.48	9.41	.048

Note. ref. + = reference category of the variable; SG17 = sexting group 2017; CI = confidence interval; LL = lower limit; UL = upper limit

Author Contributions

Carlos García-Montoliu: Writing – original draft, Visualization, Methodology, and Formal analysis. **Rafael Ballester-Arnal:** Writing – review and editing, Validation, Supervision, Resources, Project administration, Funding acquisition, and Conceptualization. **Olga Fernández-García:** Methodology, Investigation, and Data curation. **Verónica Estruch-García:** Writing – original draft, Investigation, and Data curation. **María Dolores Gil-Llario:** Writing – review and editing, Supervision, Resources, Project administration, and Conceptualization.

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Declaration of Interests

The authors declare that there is no conflict of interest.

Data Availability Statement

The data from this research are not in any public repository. However, to contribute to transparency in science, the data can be shared upon justified request to the corresponding author.

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