







## Sexting in adolescents: Prevalence and behaviours

### Sexting en adolescentes: Prevalencia y comportamientos

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#### ABSTRACT

Sexting is among the practices used by young people to explore their sexuality. Although an educational response to all facets of this phenomenon is recommended, little research has been published to date in Spain that analyses its prevalence by differentiating between the different types of sexting behaviours: sending, receiving, third-party forwarding, and receiving via an intermediary. This gap in the research is addressed by exploring: 1) Sexting prevalence, differentiating between behaviours; 2) Relationships between sexting behaviours and gender, age, sexual orientation, having a romantic/sexual partner, social networking sites used, and the degree of normalisation and willingness to sext; 3) Gender-based differences. In total, 3,314 adolescents aged 12 to 16 years participated in the study. The most frequent sexting behaviours were identified as receiving and receiving via an intermediary, followed by third-party forwarding and the sending of sexual content. The relative importance of each analysed variable depended on the specific sexting behaviour and the participants' gender. The results highlight the need to analyse the diversity behind sexting behaviours and to address each one in an educational setting. This more detailed look at the different behaviours can be used as the basis for raising awareness and decision-making in education.

#### RESUMEN

El sexting es una de las prácticas a través de la que los jóvenes exploran su sexualidad. Aunque se recomienda responder educativamente a todas las formas en las que se puede expresar este fenómeno, en España, se ha publicado poca investigación que analice su prevalencia diferenciando los distintos tipos de comportamientos de sexting: envío, recepción, reenvío y recepción de reenvíos. El presente estudio aborda esta brecha en la investigación explorando: 1) La prevalencia de sexting, diferenciando entre comportamientos; 2) Las relaciones entre los comportamientos de sexting y el género, la edad, la orientación sexual, tener pareja romántica/sexual, las redes sociales utilizadas, el grado de normalización de sexting y la predisposición para participar en él; 3) Las diferencias de género. En total, participaron 3.314 adolescentes de 12 a 16 años. Los comportamientos de sexting más frecuentes fueron la recepción y la recepción de reenvíos, seguidos del reenvío y el envío. La importancia relativa de cada una de las variables analizadas dependió del comportamiento analizado y del género de los adolescentes. Los resultados destacan la importancia de analizar la diversidad de los comportamientos de sexting y abordar cada uno de ellos desde la educación. Este punto de vista más detallado sobre los diferentes comportamientos podría utilizarse como base para la toma de decisiones educativas y de sensibilización.

#### KEYWORDS | PALABRAS CLAVE

Sexting, adolescence, prevalence, normalisation, willingness, social networking sites, gender, education.  
Sexting, adolescencia, prevalencia, normalización, predisposición, redes sociales, género, educación.

## 1. Introduction

Sexting (the sharing of self-produced sexual material through electronic means) is one of many behaviours adolescents adopt to express and explore their sexuality. Sexting often leads to positive outcomes, but it can also have negative repercussions (Englander, 2019) that pose new challenges for parents and educational professionals (McEachern et al., 2012). Risks may increase given the peer pressure to engage in sexting, the non-consensual dissemination of sexting messages, and the presence of associated risks such as (cyber)bullying (Medrano et al., 2018). Thus, an educational response to the myriad of ways this phenomenon can be expressed is recommended. Forwarding is a behaviour that must clearly be avoided, and strategies for tackling it need to be taught (Van-Ouytsel et al., 2014). However, we also need to know how best to act when this kind of content is received (Mitchell et al., 2012) and how to engage in sending sexual content safely (Wurtele & Miller-Perrin, 2014).

Within the current context, few studies have been published in Spain which analyse sexting prevalence by differentiating between the different types of sexting behaviours. Most studies focus on a single behaviour, such as sending (Gámez-Guadix et al., 2017) or receiving (Garmendia et al., 2016). However, other sexting behaviours may entail different consequences for those involved and need to be addressed in education. As such, it is important to disentangle the diversity behind sexting behaviours, going beyond sending and receiving by also including the forwarding of personally received sexts and the further transmission of a third-party sexting message.

### 1.1. What does sexting imply?

A first broad differentiation of sexting behaviours can be made between active sexting (sending or forwarding) and passive sexting (receiving directly from the creator or receiving content forwarded by third-parties) (Barrense-Dias et al., 2017). A further distinction can be made between primary sexting (sending and receiving), where sexual content is normally exchanged consensually amongst peers and not sent to anyone else (except for group pressure, sextortion...), and secondary sexting (forwarding and receiving via an intermediary), when someone shares the sexual content beyond the intended recipient, often non-consensual (Schmitz & Siry, 2011).

In this context, we find restrictive definitions that limit sexting to sending sexually explicit images (Marume et al., 2018) as well as more comprehensive definitions that describe it as the sending, receiving and forwarding of sexually suggestive and explicit images, videos or text messages (Mitchell et al., 2012; Villacampa, 2017). However, studies that adopt a comprehensive definition sometimes fail to differentiate between separate behaviours which are included (Beckmeyer et al., 2019; West et al., 2014).

Consequently, in the present study, sexting is defined as sending, receiving and forwarding sexually suggestive and explicit images, videos or text messages via the internet and electronic media, and each sexting behaviour is analysed independently.

### 1.2. How prevalent is sexting?

Sexting prevalence rates among adolescents vary according to the criteria used to define the phenomenon, the age of the participants, the time range and measuring instrument, among others (Barrense-Dias et al., 2017). In a recent meta-analysis, which examines studies from the USA, Europe, Australia, Canada, South Africa and South Korea, the average prevalence of sending sexual content was 14.8%; receiving sexts was 27.4%; forwarding a sext without consent was 12.0%; and receiving a forwarded sext was 8.4% (Madigan et al., 2018). However, no studies from Spain featured among this literature.

Specifically, in Spain, few articles have analysed sexting prevalence, differentiating between specific types of sexting behaviours. Villacampa (2017) found that 7.9% of 489 youths aged between 14 and 18 had produced content of this type, whereas Gámez-Guadix et al. (2017) found that the prevalence for sending sexts in 3,223 youths aged 12 to 17 years was 13.5%. Moreover, Garmendia et al. (2016) observed a considerable increase in the receiving of sexual content, whereas Villacampa (2017) reported that the rate of third-party forwarding of sexual images or videos was 8.2%.

### 1.3. Sexting engagement and its associated characteristics

International studies have reported considerable variability in sexting prevalence based on sociodemographic characteristics (Olivari & Confalonieri, 2017). The previously mentioned meta-analysis found that sexting participation rates increase with age (Madigan et al., 2018). It also occurs more frequently between desired or actual sexual and/or romantic partners (Beckmeyer et al., 2019; Wood et al., 2015). Despite the limited number of studies analysing prevalence in adolescents based on sexual orientation, there do seem to be significant differences. Non-heterosexual adolescents appear more involved in sending and receiving sexual content than their heterosexual peers, though not in non-consensual forms of sexting (Van-Ouytsel et al., 2019).

Regarding gender, a range of results have been reported. Some studies found that girls are more likely to send sexual images than boys (Ybarra & Mitchell, 2014) whereas, in contrast, boys participate to a greater extent in sending, receiving and third-party forwarding (Strassberg et al., 2017). Other studies, however, found no gender differences in the rates of sending and receiving sexual messages or images (Beckmeyer et al., 2019; Campbell & Park, 2014).

Specifically, in Spain, few studies were identified as analysing different sexting behaviours based on these sociodemographic variables. Garmendia et al. (2016) found that receiving sexts increases with age. Likewise, in a study developed by Gámez-Guadix et al. (2017), boys sent more sexual text messages than girls, but no significant differences were found in sending images/videos. In addition, sending this type of content was significantly more likely among non-heterosexual adolescents (Gámez-Guadix et al., 2017).

Despite the differences in sexting prevalence, studies show considerable percentages of involvement and some even claim that it is a common behaviour in online interactions during adolescence (Gámez-Guadix et al., 2017). However, although it is true that the exchange and visualisation of sexual content is becoming increasingly more normalised among adolescents and young people, that is, they perceive sexting as a mainstream, standard behaviour (Stanley et al., 2018), it cannot be considered a normative practice, which most of them do (Van-Ouytsel et al., 2015).

Adolescents generally believe that the messages shared in their environment (i.e. those coming from friends and the media) influence their predisposition to sext by implying it is normal (Davidson, 2015). Yet the majority, regardless of their gender or age, do not participate in sexting, meaning that it does not fall under a normative aspect of adolescent flirting and relationships (Wood et al., 2015).

### 1.4. Current study

Despite the real concern about preventing the negative consequences of sexting, little research has been published to date in Spain that analyses sexting prevalence by differentiating between the different types of behaviours. Furthermore, sexting is a phenomenon closely linked to social norms, so it is important to address both sexting normalisation and gender differences (Symons et al., 2018; Wood et al., 2015).

This would allow us to gain a better understanding of its complexity and effectively analyse this phenomenon, thus laying the groundwork for educational efforts. As such, this exploratory study seeks to: 1) Analyse sexting prevalence, differentiating between the four behaviours: sending, receiving, third-party forwarding, and receiving via an intermediary; 2) Identify whether gender, age, sexual orientation, having a romantic/sexual partner, SNS used, degree of normalisation and willingness to sext predict each sexting behaviour; 3) Explore gender differences.

## 2. Method

### 2.1. Participants

The sample comprised 3,314 adolescents (48.6% girls) aged between 12 and 16 years ( $M_{age} = 13.63$ ,  $SD_{age} = 1.23$ ) recruited from 15 secondary schools in the south of Spain. Specifically, they came from the provinces of Seville, Huelva and Córdoba in the Region of Andalusia (Table 1).

<b>Variables</b>	<b>N</b>	<b>%</b>
Sexual orientation		
Heterosexual	1602	85.6
Non-heterosexual	270	14.4
Asexual	133	7.1
Bisexual	112	6.0
Homosexual	25	1.3
Romantic/sexual partner in the last 3 months		
Yes	1015	31.4
No	2218	68.6
SNS used		
None	53	1.6
At least one	3259	98.4
WhatsApp	3197	96.6
Instagram	2737	82.6
Snapchat	1433	43.6
Facebook	914	28.0
Twitter	882	26.6
Telegram	142	4.4
Tinder	13	0.4

## 2.2. Measures

Four direct questions on sexting behaviours were used to assess sexting involvement: sending (“I have sent erotic-sexual videos, images or messages to my boyfriend/girlfriend”); receiving (“I have received erotic-sexual videos, images or messages from my boyfriend/girlfriend”); third-party forwarding (“I have forwarded or shared erotic-sexual videos, images or messages of other boys or girls”); and receiving via an intermediary (“Someone sent me erotic-sexual videos, images or messages of other boys or girls”). The first two questions refer to self-produced sexual content, while the other two questions refer to sexual content of other adolescents. Multiple format responses were used according to the degree of frequency: 0=Never; 1=Rarely; 2=Occasionally (several times/month); 3=Often (several times/week); and 4=Frequently (daily). All variables were dichotomised (0=never engaged; 1=engaged).

Two dimensions of the Normalisation Sexting Questionnaire (NSQ) (Casas et al., 2019) were also used to assess sexting normalisation and willingness to engage in sexting. Specifically, the normalisation dimension comprised five items about the perception of sexting as a normal and usual practice among peers (e.g. “Sending erotic-sexual videos, images or messages is normal, nothing happens”) ( $\alpha=.60$ ). Willingness to engage in sexting was measured using six items that indicate a predisposition to exhibit such behaviours (e.g. “I would send erotic-sexual messages or photos/videos to have fun with my boyfriend/girlfriend”) ( $\alpha=.84$ ). Both dimensions measured the degree of agreement: 0=strongly disagree to 4=strongly agree. Two variables resulted from the average of each dimension.

Respondents were asked to indicate the SNS they used: WhatsApp, Instagram, Twitter, Facebook, Snapchat, Telegram or Tinder. Each variable was dichotomised. Telegram and Tinder were removed given their low use. Regarding sexual orientation, participants had to select the option which most coincided with how they felt in erotic-affective relationships (heterosexual, homosexual, bisexual, asexual). Because of the relatively low prevalence of some sexual orientation categories, the sexual orientation variable was dichotomised. Lastly, a dichotomous item was added to assess whether they had a romantic/sexual partner (“Do you have/Have you had a partner in the last 3 months?”).

## 2.3. Procedure

This study was approved by the Andalusia Biomedical Research Ethics Coordinating Committee (0568-N-14), which follows the guidelines for Good Clinical Practice set by the International Conference on Harmonization. The study adopted a transversal, prospective, single-group ex post facto design (Montero & León, 2007) and incidental sampling was performed. The schools’ management teams were contacted by e-mail about participating in a large study on the use of SNS and the potential associated risks. Those schools expressing interest were included in the study. Parental written informed consent was obtained

via acceptance of project participation headed by the respective School Board. Once permissions were obtained, data were collected. Paper-and-pencil questionnaires were administered during class time by either researchers or teachers who had received prior training. During questionnaire administration, respondents were clearly informed about the anonymous and voluntary nature of participation, the confidential treatment of data, and the importance of responding truthfully.

## 2.4. Data analysis

Data were analysed using SPSS 25.0. Basic descriptive analyses were performed, including Cronbach's alphas and frequencies. Binary logistic regressions were used to assess associations between gender, age, sexual orientation, having a romantic/sexual partner, SNS used, sexting normalisation and willingness to engage in sexting as independent variables, and the four sexting behaviours as dependent variables. Nagelkerke's  $R^2$  was considered as a measure of effect size. All variables were entered into the model simultaneously. The analysis was also stratified by gender.

## 3. Results

### 3.1. Prevalence of sexting behaviours

The most frequent sexting behaviours are receiving (21.2%) and receiving via an intermediary (28.4%), followed by third-party forwarding of sexual content (9.3%) and, lastly, sending (8.1%). Descriptive statistics are shown in Table 2.

Variables	Sending N (%)	Receiving N (%)	Third-party forwarding N (%)	Receiving via an intermediary N (%)
Gender				
Girl	111 (7.0)	273 (17.1)	100 (6.3)	412 (25.8)
Boy	155 (9.2)	421 (25.1)	205 (12.2)	519 (30.8)
Age				
12	11 (1.5)	71 (9.8)	21 (2.9)	98 (13.5)
13	37 (4.2)	156 (17.8)	58 (6.6)	210 (23.8)
14	92 (11.7)	198 (25.2)	79 (10.0)	243 (30.8)
15	85 (13.2)	174 (27.1)	100 (15.6)	265 (41.3)
16	41 (16.6)	95 (38.6)	48 (19.4)	116 (47.2)
Sexual orientation				
Heterosexual	130 (8.2)	354 (22.3)	150 (9.4)	459 (28.8)
Non-heterosexual	38 (14.1)	59 (21.9)	18 (6.7)	71 (26.3)
Romantic/sexual partner				
No	89 (4.1)	297 (13.6)	142 (6.5)	494 (22.5)
Yes	169 (16.7)	372 (36.9)	156 (15.4)	405 (40.1)
SNS used				
WhatsApp	259 (8.2)	680 (21.5)	302 (9.5)	913 (28.8)
Instagram	249 (9.2)	644 (23.7)	293 (10.8)	859 (31.6)
Twitter	122 (13.9)	253 (28.9)	135 (15.4)	333 (38.0)
Facebook	110 (12.1)	271 (30.0)	133 (14.7)	329 (36.2)
Snapchat	159 (11.1)	359 (25.2)	160 (11.2)	474 (33.2)

### 3.2. Relationships between sexting behaviours and associated characteristics

The regression models were significant. Nagelkerke's  $R^2$  was .42 for the "sending" model, .29 for the "receiving" model, .23 for the "third-party forwarding" model, and .17 for the "receiving via an intermediary" model (Table 3: <https://doi.org/10.6084/m9.figshare.12017964.v1>).

In the "sending" model, willingness to sext (OR: 8.26; 95% confidence interval [CI]: 5.36-12.75), having a romantic/sexual partner (OR: 3.44; 95% CI: 2.25-5.25), using Snapchat (OR: 1.87; 95% CI: 1.19-2.93), sexual orientation (OR: 1.77; 95% CI: 1.04-3.00) and age (OR: 1.36; 95% CI: 1.14-1.63) were significantly related to sending engagement. In the "receiving" model, having a romantic/sexual partner (OR: 3.27; 95% CI: 2.51-4.28), willingness to sext (OR: 2.79; 95% CI: 2.01-3.89), using Instagram (OR:

1.89; 95% CI: 1.16-3.10), gender (OR: 1.82; 95% CI: 1.37-2.41), using Snapchat (OR: 1.61; 95% CI: 1.21-2.14), sexting normalisation (OR: 1.49; 95% CI: 1.20-1.86) and age (OR: 1.26; 95% CI: 1.12-1.41) were significantly related to receiving engagement.

In the “third-party forwarding” model, using Instagram (OR: 2.74; 95% CI: 1.16-6.51), willingness to sext (OR: 2.00; 95% CI: 1.48-2.72), gender (OR: 1.96; 95% CI: 1.32-2.91), having a romantic/sexual partner (OR: 1.86; 95% CI: 1.29-2.68), using Facebook (OR: 1.53; 95% CI: 1.03-2.26), sexting normalisation (OR: 1.43; 95% CI: 1.09-1.87) and age (OR: 1.43; 95% CI: 1.22-1.66) were significantly related to engagement in third-party forwarding.

In the “receiving via an intermediary” model, using Instagram (OR: 2.16; 95% CI: 1.47-3.19), sexting normalisation (OR: 1.84; 95% CI: 1.52-2.24), having a romantic/sexual partner (OR: 1.71; 95% CI: 1.35-2.17), gender (OR: 1.41; 95% CI: 1.11-1.80) and age (OR: 1.36; 95% CI: 1.23-1.49) were significantly related to engagement in receiving via an intermediary.

### 3.3. Gender differences

The regression models were significant. Nagelkerke’s  $R^2$  was .50 for girls and .41 for boys for the “sending” model; .31 for girls and .29 for boys for the “receiving” model; .18 for girls and .24 for boys for the “third-party forwarding” model; and .14 for girls and .22 for boys for the “receiving via an intermediary” model (Table 4: <https://doi.org/10.6084/m9.figshare.12017964.v1>).

In the “sending” model, for girls, willingness to sext (OR: 30.44; 95% CI: 11.93-77.68), having a romantic/sexual partner (OR: 4.54; 95% CI: 2.27-9.09) and age (OR: 1.60; 95% CI: 1.17-2.20) were significantly related to sending engagement. For boys, these were willingness to sext (OR: 6.05; 95% CI: 3.68-9.94), having a romantic/sexual partner (OR: 2.79; 95% CI: 1.59-4.88) and using Snapchat (OR: 2.38; 95% CI: 1.32-4.29).

In the “receiving” model, for girls, willingness to sext (OR: 5.11; 95% CI: 2.57-10.16), using Instagram (OR: 4.34; 95% CI: 1.43-13.14), having a romantic/sexual partner (OR: 3.77; 95% CI: 2.49-5.72), sexting normalisation (OR: 1.62; 95% CI: 1.13-2.33) and age (OR: 1.42; 95% CI: 1.17-1.72) were significantly related to receiving engagement. For boys, these were having a romantic/sexual partner (OR: 2.97; 95% CI: 2.08-4.25), willingness to sext (OR: 2.32; 95% CI: 1.58-3.41), using Snapchat (OR: 2.03; 95% CI: 1.38-2.91), sexting normalisation (OR: 1.40; 95% CI: 1.06-1.86) and age (OR: 1.20; 95% CI: 1.04-1.38).

In the “third-party forwarding” model, for girls, willingness to sext (OR: 1.98; 95% CI: 1.14-3.44), using Facebook (OR: 1.98; 95% CI: 1.01-3.91), having a romantic/sexual partner (OR: 1.91; 95% CI: 1.02-3.55), sexting normalisation (OR: 1.74; 95% CI: 1.06-2.86) and age (OR: 1.38; 95% CI: 1.03-1.84) were significantly related to engagement in third-party forwarding. For boys, these were using Instagram (OR: 3.08; 95% CI: 1.07-8.88), willingness to sext (OR: 2.08; 95% CI: 1.42-3.03), having a romantic/sexual partner (OR: 1.79; 95% CI: 1.13-2.83) and age (OR: 1.42; 95% CI: 1.18-1.71).

In the “receiving via an intermediary” model, for girls, using Instagram (OR: 2.63; 95% CI: 1.39-4.95), sexting normalisation (OR: 1.53; 95% CI: 1.14-2.07), having a romantic/sexual partner (OR: 1.50; 95% CI: 1.06-2.12) and age (OR: 1.42; 95% CI: 1.21-1.65) were significantly related to engagement in receiving via an intermediary. For boys, these were sexting normalisation (OR: 2.17; 95% CI: 1.66-2.83), using Instagram (OR: 1.88; 95% CI: 1.15-3.09), having a romantic/sexual partner (OR: 1.86; 95% CI: 1.32-2.60), using Snapchat (OR: 1.57; 95% CI: 1.11-2.24) and age (OR: 1.33; 95% CI: 1.17-1.52).

## 4. Discussion and conclusions

This study advances knowledge of sexting, going beyond sending and receiving to also encompass the forwarding of a personally received sext and the further transmission of a third-party sexting message. According to previous research (Barrense-Dias et al., 2017), sexting behaviours that refer to passive attitudes (receiving and receiving via an intermediary) are more frequent than active forms (sending and third-party forwarding). Specifically, more than 2 in 25 teenagers send or forward sexual content, while more than 1 in 5 receive it directly from the creator, and more than 1 in 4 teenagers receive it via an intermediary. Although the prevalence rates in this study for sending, receiving and third-party forwarding are slightly lower than the average observed in Madigan et al.’s (2018) meta-analysis, the rate of



receiving a forwarded sext is considerably higher. In addition, typically non-consensual sexting behaviours are more frequent than typically consensual ones. This coincides with Villacampa's (2017) study in which the third-party forwarding of sexual content was more frequent than its production. Therefore, these results emphasise the need for educational efforts to focus more on promoting respect for privacy, consent and the promotion of sexual ethics (Dobson & Ringrose, 2016; Wurtele & Miller-Perrin, 2014). Educational programmes should seek to develop skills for maintaining an ethically intimate relationship, such as preventing pressure in a sexual-affective relationship; encouraging reflection on the importance of actual consent and respect for one's partner; and maintaining a critical attitude towards the exchange of non-consensual sexual content (Albury et al., 2017).

The relative importance attached to each analysed variable is shown to depend on the specific sexting behaviour and the participants' gender. Although boys engage more than girls across all sexting behaviours, sending is the only behaviour not predicted by gender. These results coincide with studies that claim no gender differences in sending (Beckmeyer et al., 2019; Campbell & Park, 2014). From this perspective, Symons et al. (2018) highlight that whereas girls may perceive themselves as less likely to send sexual content than boys, they generally seem to send content of this kind in a similar way. This suggests a conflict between the expectations that girls hold about themselves and their actual behaviour. However, gender differences in engagement are observed in all other behaviours (Madigan et al., 2018). For both boys and girls, sexting is an invitation to participate in sexual activities (Wurtele & Miller-Perrin, 2014), but in general boys hold more favourable attitudes towards sexting than girls (Gewirtz-Meydan et al., 2018). As such, the results support studies that suggest girls are more involved as victims in sexting, suffering the negative consequences of this phenomenon (Dobson & Ringrose, 2016; Symons et al., 2018). This may be because boys are more likely to practice sexting in ways that are deemed riskier for their partner than for themselves, that is, receiving and forwarding to third parties. This supports previous literature that claims sexting is not a gender neutral activity (Wood et al., 2015). Therefore, educational efforts should also focus on promoting gender equality and healthy relationships (Dobson & Ringrose, 2016; Wurtele & Miller-Perrin, 2014). It is particularly important to discuss with young people the sexual double standard and to avoid the use of gender stereotypes when devising and implementing strategies to tackle sexting (Döring, 2014; Wood et al., 2015).

Age is related to all sexting behaviours, except sending in boys. This coincides with previous studies (Gámez-Guadix et al., 2017; Madigan et al., 2018) and may be due to adolescents' increasing social network usage with age (Garmendia et al., 2016) and the emergence of their first romantic/sexual relationships as a natural and normative development in adolescence (Lantagne & Furman, 2017). In the case of third-party forwarding of sexts, this could also mean a greater risk of sexting messages being disseminated non-consensually over the course of adolescence (Ringrose et al., 2013). Thus, educational efforts should be made to promote sexual education early on (Ahern et al., 2016; Gámez-Guadix et al., 2017). Although sexting is less frequent among very young or preteen boys and girls, negative outcomes are more common in these groups (Englander, 2019).

Sexual orientation predicts involvement in sending sexts. Specifically, adolescents who identify as non-heterosexual participate more in this practice, but not in other behaviours. This coincides with previous research reporting how young people from sexual minorities are more likely to engage in sending sexual content (Gámez-Guadix et al., 2017; Ybarra & Mitchell, 2014). However, the aforementioned groups are not significantly more likely to participate in other sexting behaviours more closely related to non-consensual forms (Van-Ouytsel et al., 2019). The higher prevalence of sending sexts could potentially be explained by the fact that the digital environment allows individuals, especially young people from sexual minorities, to connect with potential dating partners without fear of negative social repercussions (Brown et al., 2005).

Having or having had a romantic/sexual partner in the last three months predicts involvement across all sexting behaviours for both boys and girls. This coincides with previous studies reporting how sexting occurs more often between desired and actual sexual and/or romantic partners (Wood et al., 2015). In Beckmeyer et al.'s (2019) study, 84.1% of the adolescents participating in sexting were in a romantic relationship. Thus, sexting can not only lead to negative outcomes, such as the future dissemination of non-consensual sexual content, but it can also have a positive impact, such as strengthening a romantic

relationship (Englander, 2019). In general terms, the literature to date has focused more on the phenomenon's negative consequences than on accepting it as a new form of intimate online relationships and preventing its possible negative effects (Döring, 2014). Society must accept sexting as a new way of exploring one's sexuality in keeping with contemporary times, and educate so that those engaging in such behaviours practice "safe sexting", thus making them jointly responsible for their safety and allowing them to take safe measures to protect themselves (Villacampa, 2017). Incorporating sexting into sex education programmes is a key part of addressing this phenomenon (Van-Ouytsel et al., 2014).

Regarding the use of SNS, Snapchat predicts the sending and receiving of sexts; Facebook predicts third-party forwarding; and Instagram predicts third-party forwarding, receiving and receiving via an intermediary. Snapchat seems to be the most commonly used SNS for sending and receiving sexts, while Instagram is used for the other sexting behaviours more strongly. However, this varies by gender. In girls, sending is not predicted by any SNS, whereas other behaviours are predicted by the use of Instagram. In boys, sending and both types of receiving are predicted by the use of Snapchat, while Instagram is used for third-party forwarding and receiving via an intermediary and Facebook also for receiving. In general terms, the Snapchat platform is used more to exchange consensual sexual content between romantic/sexual partners, although a study of whether factors including pressure and coercion exert an influence is needed. In contrast, Facebook and Instagram are more frequently used for generally non-consensual forms of sexting. Specifically, the third-party forwarding of sexual content can be classed as a form of sexting with the highest risk because the content can be spread more easily and reach the target audience without consent (Madigan et al., 2018). When it comes to preventive actions, attention needs to be paid to these platforms as channels for disseminating non-consensual sexual content. Developing a safe and healthy use of the Internet and social networks is essential, highlighting, for example, the control of personal information online (Patrick et al., 2015) as well as an understanding of the rights and responsibilities surrounding digital technologies and virtual social networks (Gámez-Guadix et al., 2017). The "Asegúrate" programme (Del-Rey et al., 2019) is an example of a psychoeducational programme developed for this purpose and which comprehensively addresses phenomena such as sexting, cyberbullying and bullying.

Lastly, sexting normalisation increases the likelihood of practicing all sexting behaviours, except sending. Furthermore, in boys, it does not predict third-party forwarding. This study reports considerable prevalence rates across the different sexting behaviours; however, they do not allow them to be considered as normative practices (Van-Ouytsel et al., 2015). Although sexting is becoming increasingly more normalised (Stanley et al., 2018), this would support the theory that adolescents perceive certain norms of sexting but do not necessarily apply them to themselves (Symons et al., 2018). These beliefs about how normalised sexting is may influence willingness to participate (Lippman & Campbell, 2014). Specifically, the willingness to engage in sexting is what best predicts sexting participation in most cases, except when it comes to receiving via an intermediary in both boys and girls.

Furthermore, the predictive value of girls' willingness to participate in sending and receiving is especially prominent. It may be that sexting normalisation is indirectly driving an increased predisposition to participate in sexting, with the latter increasing the prevalence of sending, receiving and forwarding sexual content. In fact, the subjective norm is the strongest predictor of young people's sexual intention (Walrave et al., 2015). Although the sharing of sexual content is far from normative behaviour, it is sufficiently widespread and standardised, meaning that education and prevention initiatives to combat its potential consequences, especially non-consensual sharing, are strongly justified (Mitchell et al., 2012). However, messages based on fear are not effective (Stanley et al., 2018). Many teenagers already have an idea of the phenomenon's negative effects, and a warning or ban alone would fail to prevent the possible consequences (Lim et al., 2016). A better approach may be to focus on social norming approaches, acknowledging that not all adolescents sext and, excluding non-consensual sexting behaviours, everyone is free to decide whether to engage or not (Englander, 2019).

Some limitations should be borne in mind when interpreting the results. It is necessary to consider the use of convenience sampling and the cross-sectional nature of our data. Similarly, self-report instruments carry the risk of obtaining socially desirable or imprecise responses. However, this proves controversial given that different variables and measures can impact on how much variance is actually



shared (Richardson et al., 2009), and independently recording and verifying sexting behaviours would be extremely challenging. Furthermore, the normalisation dimension of sexting has acceptable yet not very high reliability, and it could come into play with the cultural context, that is, a country's culture and education system may impose fewer or greater social penalizations for sharing sexual content.

This study did not look at whether the sent sexual content was later forwarded non-consensually or whether said content was forwarded between (ex)romantic partners. Future lines of research could address these limitations and expanding on the factors that may explain adolescent sexting involvement. Qualitative studies would be useful for gaining a more detailed understanding of the characteristics associated with each sexting behaviour and gender-related differences. Another necessary step would be to design, implement and evaluate educational school-based programmes aimed at addressing the potential negative consequences of sexting, considering the different sexting behaviours observed and their traits.

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