Sexting Behavior Among Youths: Nature, Determinants, and Consequences

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Abstract

The advent of digital technology and smartphones with internet access has affected many aspects of youth development, including sexual development. One frequently studied type of digital technology use related to young people’s sexual communication is sexting, which is the exchange of sexually explicit content electronically for sexual or romantic purposes. This theoretical review of research, lists and explains commonly studied characteristics of sexting: nature, determinants, and consequences of sexting behavior. The consensus was critical for nearly all characteristics examined in sexting research. Gaps in existing knowledge and methodology as well as recommendations for future research on youth sexting are discussed.

Keywords: characteristics of sexting, determinants of sexting, consequences of sexting, youths, digital technology

Introduction

The popularity of the Internet and social media over the past decade has had a particular impact on the development of young people who use digital technology daily (Chaudron, 2015; Rideout, 2017). The advent of digital technology and smartphones with internet access has influenced many aspects of youth development, including sexual development. One of the frequently studied ways of using digital
technology in the context of young people’s sexual communication is sexting, which is the exchange of sexually explicit content electronically for sexual or romantic purposes (e.g., Bonilla et al., 2021; Molla-Esparza et al., 2021).

Although some online sexual activities, such as non-consensual sexting (NCS), may pose a risk to young people, others, such as consensual sexting are considered a normal part of adolescent sexual development in the digital age (Dodaj, Prijatelj & Sesar, 2022; Smahel & Subrahmanyam, 2014), and as such, does not pose a public health risk (Dodaj et al., 2023). Therefore, consensual sexting, among other behaviors, can be considered a developmentally appropriate or common behavior among young people. On the other hand, NCS may be considered risky due to the association of sexting with negative consequences among young people, which has been found in numerous studies conducted thus far. Several studies suggest that sexting in general is associated with traditional forms of violence, such as sexual abuse and intimate partner violence (Titchen et al., 2019). Relationships have also been found for risky behaviors such as substance use, risky sexual behavior (Benotsch et al., 2013), non-suicidal self-harm (Wachs et al., 2021), and suicide attempts (Frankel et al., 2018). Also, participation in sexting has been associated with experiencing or perpetrating electronic violence (Kričkić et al., 2017; Van Ouytsel et al., 2019). In addition, sexting is a predictor of online sexual solicitation (Gámez-Guadix & Mateos-Pérez, 2019), experienced by 17% of adolescents (Machimbarrena et al., 2018).

Researchers tried to operationalize this construct, determine its prevalence, and examine the determinants, and consequences of engaging in sexting behaviors among young people. Given the above, this literature review aims to present and elaborate on the characteristics of sexting behavior, considering the developmental stages of adolescence and emerging adulthood. To our knowledge, this is the first review that will thoroughly describe the most commonly studied characteristics in sexting research.

**Nature of Sexting Behavior**

Consensual sexting is considered a regular form of sexual expression and intimate communication within romantic and sexual relationships, characterized by the exchange of sexually explicit content through the sending, receiving, or forwarding of messages, photos, or videos via electronic devices (Barroso et al., 2021, 2022). Although adolescents mainly engage in sexting to maintain intimate relationships or to increase their sexual satisfaction, they may also engage in sexting with harmful intentions and misuse this sexual content (see Schokkenbroek et al., 2023). The intention to expose or harm someone can lead to problematic behavior, whereby sharing the content of others without their consent is referred to as earlier mentioned NCS (Barroso et al., 2022). Although consensual sexting is considered voluntary due to the agreement from participating youths, it can become harmful
after dissemination to third persons (Clancy et al., 2019). Because of mentioned
dynamics, consensual sexting can easily become NCS and lead to psychological
distress as well as to other mental health problems.

Sexting behavior in general is known to be a relatively widespread phenomenon
among young people. For example, a recent meta-analysis by Molla-Esparza and
colleagues (2020) of adolescents in studies published between 2009 and 2020
showed that the mean prevalence of sending, receiving and forwarding sexts
increased with the year of data collection (e.g., .07 for sending sexts in studies that
collected data in 2009 vs. .16 in 2014 and .33 in 2018) and age (e.g., .04 for sending
sexts at age 12 vs. .09 at age 14 and .21 at age 16). Madigan and colleagues’ (2018)
meta-analysis of adolescents aged 11.9 to 17 years found that 14.8% of adolescents
send, 27.4% receive, 12% forward sexts without consent, and 8.4% state that their
sexts were forwarded without consent. In another recent meta-analysis of 38 studies
from 2016 to 2020, Mori et al. (2022) found that the prevalence of certain forms of
sexting varied among emerging adults (18–29), namely 19.3% for sending, 34.8%
for receiving, and 14.5% for forwarding without consent. A meta-analysis of 50
published research up to 2018 identified that the prevalence of certain forms of
sexting also varies among young adults (aged 18 to 29): 38.3% for sending, 41.5%
for receiving, 47.7% for mutual exchange, and 15% for forwarding without consent
(Mori et al., 2020).

Although there are no systematic studies on the prevalence of sexting among
youth in a sample from Croatia, a recent national study (Dodaj et al., 2023) conducted
on 2859 high school students shows that 40.1% of high school students send sexts,
52.9% receive sexts, 13.4% forward sexts of others, and 49.2% receive forwarded
sexts in the last 12 months. The same study with a sample of university students ($N =
1970$) shows that 60.4% of students send sexts, 66.2% receive sexts, 8.2% forward
sexts of others, and 45.1% receive forwarded sexts.

It is also important to point out that the differences in the data on sexting
prevalence could be due to inconsistent methodology. For example, in the meta-
analysis mentioned above, some studies measured sexting behavior using
constructed and psychometrically tested instruments, while other studies constructed
groups of single items to measure sexting behavior. Kosenko and colleagues (2017)
found that the use of measurement instruments with multiple items or groups of
single items resulted in different measurement elements based on different
conceptualizations (e.g., acts, media forms, sexual characteristics, etc.). Another
drawback of these studies is the different instructions given to participants when
examining sexting behavior based on a different time frame of sexting behavior, with
some using a time frame of 12 months or less and some even using no time frame.
According to Courtice and Shaughnessy (2021), there are also studies based on
lifetime experience of sexting, which makes understanding the sexting data even
more complex. Another drawback of this sexting prevalence research is the age of
the participants in the samples, which varies between adolescents, young adults,
emerging adults, and even adolescents and young adults. We recommend the use of age-pure samples as we know that there are differences in sexting behavior between young adults who typically participate with consent to gain intimacy or maintain an intimate relationship and adolescents who do it for fun (Dodaj et al., 2023) or even more under pressure or coercion (Arain et al., 2013; Casey et al., 2008; Gardner & Steinberg, 2005).

Given the different conceptualization of sexting or/and the resulting inconsistent methodology, which leads to potentially inconsistent results, the considerable heterogeneity of reported data on the prevalence of sexting is not surprising and makes it difficult to compare the results of different studies.

**Determinants of Sexting**

Several previous studies have addressed the determinants that lead to greater youth participation in sexting. In order to understand the determinants of sexting behavior, we referred to the Motivational model of sexting behavior (Sesar et al., 2019). The motivational model of sexting represents a synthesis of empirical findings on the determinants of sexting and several theoretically-based models. It describes the influence of individual factors, which are primarily rooted in social learning theory, and contextual factors, which are based on criminological theories of self-control, on the motivation to engage in sexting. By incorporating social learning and self-control theories, it becomes possible to explain both the consensual aspects associated with the normal expression of sexuality through sexting and the non-consensual aspects involving norm violations and criminal behavior. According to some authors (Schokkenbroek et al., 2023), for example, a detailed insight into non-consensual sexting, which is generally considered to be norm-violating and in some cases even criminal behavior, should be examined within a criminological theoretical framework.

As individual determinants of sexting, Sesar and colleagues (2019) emphasize demographic characteristics, attachment, personality traits, cognitive and social factors (e.g., attitudes, the experience of peer pressure, etc.), emotional regulation and factors related to intimate partner relationships (Sesar & Dodaj, 2019). Contextual determinants of sexting, on the other hand, include the norms and values that apply in a particular culture or society, as well as the country in which the person lives. A model proposed by Sesar and colleagues (2019) is considered suitable both for exploring consensual and non-consensual forms of sexting because of its generality and flexibility. Authors of the model also state that some determinants are more associated with NCS, such as the experience of peer pressure or intimate partner violence, and others are more associated with consensual forms of sexting, such as attitudes or attachment style.
Individual Determinants of Sexting

Demographic characteristics have been regularly studied in the context of sexting. For example, inconsistent results have been obtained in relation to gender. Some studies suggest greater involvement in sexting among young men (Jonsson et al., 2014; Strassberg et al., 2017), while others indicate greater sexting involvement among girls (Martínez-Prather & Vandiver, 2014; Reyns et al., 2014), while a certain number of studies have found no gender differences in sexting involvement (Dake et al., 2012; Prijatelj et al., 2022; Rice et al., 2012). On the other hand, research consistently shows that involvement in sexting increases with age (Dake et al., 2012; Madigan et al., 2018; Strassberg et al., 2013).

The most common studied factors related to intimate partner relationships suggest that young people who are in intimate partner relationships are more likely to sext than those who are single (Dir et al., 2013; Prijatelj et al., 2022), particularly when they are physically distant from their partner (Drouin et al., 2013; Walker et al., 2013). In addition, research indicates that pressure to send sexts in intimate partner relationships is associated with fear of ending the relationship if the person does not want to send sexts (Lippman & Campbell, 2014).

Attachment styles have also been examined in previous sexting research. For example, sexting has been associated with an insecure attachment style, i.e., anxious attachment (Drouin & Landgraff, 2012; Drouin & Tobin, 2014; Trub et al., 2022; Trub & Starks, 2017).

A review of the literature by Sesar and Dodaj (2019) in the field of emotional regulation and sexting found that individuals who participate in sexting are more likely to use maladaptive emotion regulation strategies compared to individuals who do not sext.

As previously emphasized, certain personality traits may also be associated with greater involvement in sexting among young people. Some of the personality traits that have been positively associated with sexting in previous research include high extraversion (Alonso & Romero, 2019), high excitement seeking (Scholes-Balog et al., 2016), low conscientiousness (Gámez-Guadix et al., 2017), and low agreeableness (Dir et al., 2013).

Cognitive and social processes are important factors to consider when young people engage in sexting (Wilson et al., 2021). Indeed, the cognitive and social factors that influence an individual’s decision to participate in sexting primarily suggest that those youth who have more positive attitudes toward sexting (Huntington & Rhoades, 2023; Strassberg et al., 2013), experience peer pressure (Lippman & Campbell, 2014; Vanden Abeele et al., 2014), and desire to gain or maintain popularity among peers (Ringrose et al., 2013) are also more likely to participate in sexting.

To summarize, sexting has been explained in the context of several individual predictors, in particular gender, age, intimate relationship characteristics, attachment,
emotional regulation and certain personality traits. However, there is a trend in the literature to focus less on specific individual factors and more on the social context (e.g., peers, attitudes) when explaining sexting (see Foody et al., 2023). However, the emphasis on individual characteristics that predict sexting behavior may mask more significant predictors.

**Contextual Determinants of Sexting**

Within contextual determinants, Sesar and colleagues (2019) emphasize the importance of cultural and social values for young people’s involvement in sexting. Major cultural and social factors that influence views on sexuality are laws, religions and cultural/social norms (see Worthy et al., 2020). These are the factors that may also be relevant in explaining sexting as a sexual activity.

Given that in traditional societies where sexually restrictive attitudes and views of society are dominant, sexuality may be perceived by young people as an unacceptable way of expression (Sesar & Dodaj, 2019), which could consequently influence sexting. Rare cross-national studies indicate a statistically significant difference in participation, motives, and attitudes toward sexting by country (Dodaj, Sesar, & Novak, 2022; Gassó Moser et al., 2021; Prijatelj et al., 2022).

Given the findings of the small number of cross-national and cross-cultural sexting research, there is a need to invest additional resources in further research that would provide insights into the contextual determinants of sexting. Future studies should therefore examine how various contextual features (e.g., laws, religion, norms) as more distal determinants of sexting interact with individual characteristics as proximal determinants to explain sexting.

**Outcomes of Sexting Behavior**

By reviewing the available literature, the consequences of sexting can be grouped into several categories: (1) subjectively perceived consequences (positive and negative consequences), (2) effects on the individual health (psychological and physical consequences), and (3) legal consequences (without legal consequences and with legal consequences). Research on sexting also focuses on potential negative mental and physical health consequences and other risks for young people (Kernsmith et al., 2018). It is also important to note that individuals who engage in sexting for different reasons experience different consequences (Hudson & Marshall, 2018). In this section, we will briefly review previous research on the consequences of sexting.
Consequences of Sexting in Terms of the Subjectively Perceived Outcome

Positive consequences of sexting could be perceived as indicators that consensual sexting is a normal and expected behavior among adolescents, with sexting considered an additional aspect of sexual development among young people who have grown up with digital technology (Mori et al., 2020; Roberts & Ravn, 2019). Most youth who have participated in sexting, particularly sending or receiving sexts with consent, report mainly positive outcomes (Dir et al., 2013; Drouin et al., 2017; Hudson & Marshall, 2018). In the context of sexual double standards, the results confirm that positive consequences of sending, receiving and/or requesting sexts are more common in boys than in girls, such as increased peer acceptance (Burén & Lunde, 2018; Speno, 2016). Other positive consequences of sending and receiving sexts include feelings of arousal, excitement, happiness and an increased likelihood of sexual intercourse (Dir et al., 2013). Sending, posting or forwarding sexts also improves relationships with partners, increases the likelihood of partners expressing their feelings, increases emotional closeness with partners, increases acceptance of one’s own body and makes people feel more able to talk about issues and feelings that would otherwise be uncomfortable to communicate (Hudson & Marshall, 2018).

The negative consequences of sexting are of concern to researchers and practitioners because of the potential impact on individuals’ mental and physical health, particularly in cases of non-consensual forwarding or sharing other people’s sexts (Dir & Cyders, 2015; Garcia et al., 2016). Indeed, Reynolds and colleagues (2014) suggest that victimization among adolescents who sext is particularly risky in the context of negative consequences. Negative consequences of sexting also include young people feeling discomfort with their bodies, jealousy, problems with a significant other, engaging in sexual relationships before the desired time, suicide attempts, legal problems, and problems with employers (Hudson & Marshall, 2018). Although consensual sexting could lead to some negative consequences (e.g., psychological distress or shame), scholars point out that NCS leads to more frequent negative consequences (Wachs et al., 2021).

Consequences of Sexting Regarding Its Effect on Health

Previous studies have pointed to numerous consequences of sexting on psychological health and social relations. For example, some studies have shown that involvement in consensual and/or non-consensual sexting is associated with an increase in depression, anxiety and unpleasant feelings such as agitation, sadness, fear and shame (Chaudhary et al., 2017; Dake et al., 2012; Drouin et al., 2015; Frankel et al., 2018; Kosenko et al., 2017; Medrano et al., 2018; Mitchell et al., 2012; Van Ouytsel et al., 2014; Ybarra & Mitchell, 2014) and lower self-esteem (Kumari & Srivastava, 2017). However, the results in this area are not consistent, as some studies do not confirm the association between sending, receiving, posting and/or
forwarding sexts and psychological health difficulties (Gordon-Messer et al., 2013; Hudson, 2011; Morelli et al., 2016; Temple et al., 2014; Vrselja et al., 2015). In addition, the association between sending sexts and suicidal thoughts and attempts, as well as victimization and experiences of violence via the Internet, has been confirmed (Dake et al., 2012).

In terms of physical health consequences for individuals involved in sexting, research points to certain outcomes that may have indirect effects on physical health. Sending and receiving sexts or being asked to send sexts or asking someone to send sexts has been shown to be associated with risky sexual behavior (Temple et al., 2012), such as increased sexual activity, engaging in sexual relationships without protection or contraception and having a greater number of sexual partners (Kosenko et al., 2017). The forms of behavior mentioned above could lead to unplanned pregnancies or infection with sexually transmitted diseases (Goel et al., 2014; Shannon & Klausner, 2018). In addition, consensually sending sexts has been shown to be associated with violence in intimate partner relationships, which can lead to physical injuries (Cornelius et al., 2020). Some research also suggests that sending, being asked to send sexts or asking someone to send sexts is related to the use of addictive substances, which are known to impact individuals' physical health (Benotsch et al., 2013; Dake et al., 2012).

Consequences of Sexting in Terms of Legal Outcomes

Within legal systems around the world, there are still no consistent measures that would clearly and unambiguously prosecute individuals who engage in certain forms of sexting (e.g., sexting between an adult and a minor, sexting under pressure or blackmail, and forwarding sexts without the consent of the person who produced the content) (Strohmaier et al., 2014). In this section, we summarize the consequences of sexting in the context of police intervention and the broader legal system. In sexting without legal consequences, we could include forms of sexting that refer to the exchange of content in the form of text messages, in the context of intimate partner relationships, with the mutual interest of partners, or with the intention to flirt with another person (Strohmaier et al., 2014). Such forms of sexting should also be voluntary, meaning that both individuals have made it clear that they agree to receive or send sexts (Hasinoff, 2016). However, let us assume that in one of these cases, sexually explicit content is forwarded to a third person, published, or shown to others without the consent of the person who produced it (Dekker & Koops, 2017). In this case, we are talking about sexting which entails legal consequences. In addition, sexting with legal consequences would also refer to the exchange of sexually explicit content where an adult initiates this behavior with a minor. Sending photos or videos could also pose a greater risk than sending text messages. Therefore, sharing sexts without the consent or permission of the person who produced them can be considered a form of online violence (Finkelhor et al., 2020).
In any case, it is important to decriminalize sexting (Strasburger et al., 2019) in such a way that individuals who engage in consensual sexting (e.g., voluntarily, without pressure or blackmail), and it does not affect their health and well-being and does not contain criminal elements, should not be prosecuted but may be offered certain psychosocial interventions. However, it is important to protect victims of NCS, whose sexually explicit content has been forwarded to third parties or who have experienced embarrassment, damage to their reputation, violence, pressure, or blackmail from sexual victimization and further violence, and not to consider their actions as a form of sexual expression.

Discussion

In the beginnings of research on this phenomenon, which emerged in the last ten years (Sesar & Dodaj, 2019), sexting was defined as sexual conversation via SMS or MMS messages on mobile phones or later smartphones (Albury & Crawford, 2012; Gillespie, 2013). Today, authors (Barrense-Dias et al., 2020; Henry & Powell, 2018; Krieger, 2017) agree that consent is important in research in this field. In contrast to non-consensual sexting, consensual sexting among peers is considered a modern and normal form of communication (Dodaj, Sesar, & Prijatelj, 2022; Döring, 2014; Rice et al., 2014; Wachs et al., 2021). Therefore, consent seems to be a central issue in the scientific study of the observed characteristics of sexting behavior, that is, the understanding of sexting through the classification of consensual and non-consensual (Dodaj & Sesar, 2020; Molla-Esparza et al., 2021). However, as we can see, data on the prevalence of sexting varies widely, with the lowest being non-consensual sexting, which is generally not a socially accepted behaviour. Therefore, we encourage researchers to investigate non-consensual sexting through alternative methodological designs that do not rely solely on self-reports. Also, succeeding studies could bridge the gap in current literature by particularly examining if consent for sexting involvement was active and mutual, i.e., if both sides gave consent for exchanging sexually explicit content and if consent was clearly communicated. Further research should be primarily focused on exploring consensual and non-consensual sexting as different forms of sexting. Also, some authors suggest operationalizing and measuring sexting behavior as a continuum from consensual to non-consensual (Dodaj et al., 2024).

Studies that have investigated the determinants of sexting have mainly focused on individual factors, with individual differences in gender, age, attitudes, peers, and intimate context being particularly important for sexting engagement. There is a growing body of literature on youth sexting in Western cultures (Dodaj, Sesar, & Novak, 2022; Jerome & Srinivasan, 2014), and a small number of studies examined cross-cultural differences in the predictors of this behavior (Gassó Moser et al., 2021). Although rarely studied, contextual factors (such as cultural or societal values) could also play an important role in the motivation and engagement of youth in some
forms of sexting behavior (Sesar et al., 2019). Cultural norms and values could influence sexting attitudes and behaviors among youths (Gil-Llario et al., 2020). Traditionalism could be further investigated as a contextual variable that could be a predictor of gender differences in sexting behavior (Klettke et al., 2018). For example, youths from more traditional cultures or countries might tend to exhibit stronger gender differences, with boys being more involved in sexting behavior than girls (Baumgartner et al., 2014). In general, the results of sexting research from Western countries should not be generalized to non-Western cultures (Dodaj, Sesar, & Novak, 2022).

The consequences of sexting can be considered in the context of the subjective perception of the individual, the effects on their health and considering the possible legal consequences. However, the current literature on sexting behavior shows inconsistent results regarding the consequences of sexting for young people. It could be that different types of sexting have different consequences for young people, as recent studies have shown. For example, in some studies, unwanted receiving and sexting under pressure were predictors of psychological distress, whereas sending or receiving sexting generally did not (Klettke et al., 2019; Wachs et al., 2021). Most sexting research aimed to identify correlates for mental health of this behavior (e.g., Livingstone & Görzig, 2014; Temple et al., 2014; Van Ouytsel et al., 2014; Ybarra & Mitchell, 2014) and provided explanations but not causality or longitudinal prediction (Doyle et al., 2021). Longitudinal studies could investigate the possible long-term consequences of young people’s sexting behavior. Following on from some qualitative findings (Van Ouytsel et al., 2016), further longitudinal studies could fill the gap in existing knowledge by focusing on a broader range of outcomes of different forms of young people’s involvement in sexting behavior.

As for the conclusion, the studies on sexting among young people provide an insight into different characteristics that need to be taken into account when further examining this phenomenon. Sexting is a complex construct that has evolved in the context of advances in digital technology. That is, the interaction of individuals with the newly created possibilities and options offered by electronic devices with internet access. However, sexting in its broadest sense can be seen as a continuum from consensual sexting to non-consensual sexting. Although it is not possible to consider the full spectrum of sexting behavior as a public health and general social problem, researchers have primarily focused on the risk factors and negative consequences of sexting among young people (Frankel et al., 2018; Holoyda et al., 2018; Temple & Choi, 2014). Further efforts in sexting research should focus on empirically validating different risk factors and consequences using a theoretically validated model. For example, the proposed motivational model for sexting behavior (Sesar et al., 2019) could be relevant for understanding sexting as a sexual behavior, as it includes contextual factors such as culture and social values in addition to the frequently studied individual factors.
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