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# Sexting: Adolescents' Perceptions of the Applications Used for, Motives for, and Consequences of Sexting

## Abstract

This study explores adolescents' explores adolescents' perceptions of applications used for sexting, their perceptions of their motives, and their perceptions of the consequences of engaging in sexting behavior. Sexting is defined as the sending of self-made, sexually explicit digital photographs through the computer or the mobile phone. We conducted eleven samesex focus groups among 57 adolescents (66.67% females; n = 38) between 15 and 18 years old in Flanders, Belgium. The analysis revealed that sexting mostly occurs through smartphone applications, such as Snapchat, which are perceived to be a more intimate form of communication than other digital applications, such as social networking sites. Both female and male respondents observed that girls might sometimes feel pressured to engage in sexting. They did so mostly out of fear that otherwise they would lose their boyfriends. There was no evidence to suggest that boys felt similarly obliged to engage in sexting. Female and male respondents mentioned three main ways in which sexting photographs could be abused: 1) they could be used to coerce or to blackmail the victim, 2) they could be distributed out of revenge after the breakup of a romantic relationship, or 3) they could be forwarded or shown to peers in order to boast about having received the digital photograph. Anecdotes, which illustrate our findings, are included in the results. Suggestions for future research and implications for practice are discussed.

#### Keywords

sexting; sexually explicit photographs; adolescents; teen dating; qualitative research; social media; Snapchat

Sexting can be broadly defined as "the sending, receiving, or forwarding of sexually explicit messages, images, or photos to others through electronic means, primarily between cellular phones" (Klettke, Hallford, and Mellor 2014, p. 45). It is considered to have a role in the development of adolescents' sexual agency and sexual self-expression (Angelides 2013; Karaian 2012; Le et al. 2014). In line with other studies on sexting among adolescents (Van Ouytsel et al. 2014; Temple and Choi 2014), this study aims to focus on one type of sexting behavior: the sending of self-made, sexually explicit photographs using the computer or mobile phones. Temple et al. (2012) found in their study that 28% of their sample of high school students in southeast Texas had sent a naked picture of themselves via e-mail or the mobile phone. Klettke, Hallford, and Mellor (2014) found in their systematic review of sexting studies that the mean prevalence rate for sexting with photo content, for the studies included in their sample, was 11.96%, with a 95% confidence interval ranging between 5.06% and 18.85%. Previous studies have found that the prevalence rates of sending sexually explicit photographs among secondary school students in Flanders, where the present study was conducted, ranged between 6.3% among 10 to 20 year olds (Vanden Abeele et al. 2014) and 11.0% among 15 to 18 year olds (Van Ouytsel et al. 2014).

The sending of self-made sexually explicit photographs has gained considerable research interest because of the risks involved with the behavior and its association with other types of risk behaviors, such as substance use or sexual risk behavior (Van Ouytsel et al. 2015; Karaian and Van Meyl 2015). When a sexting message is exposed to other individuals than the intended recipient, it could induce bullying or damage reputations if the digital photographs are shown or forwarded to others (Lippman and Campbell 2014; Wachs and Wolf 2015; Ringrose et al. 2013; Walker, Sanci, and Temple-Smith 2013). When this happens in a school, it might constitute a school safety risk (Van Ouytsel et al. 2015) and school staff

such as counselors, psychologists, or nurses might need to counsel students about the behavior (Diliberto and Mattey 2009).

Because of the risks associated with sexting, its impact on the school climate, and its relationship with other types of risk behaviors, more research into how context influences adolescent sexting is warranted (Karaian 2012; Walrave et al. 2015). Several scholars have called for deeper qualitative investigation into the communication tools that are used to engage in it as well as other contextual factors, such as adolescents' perceptions of the social norms about the behavior, the relations between sexting and (peer) pressure, or the social consequences of the behavior (Comartin, Kernsmith, and Kernsmith 2013; Van Ouytsel, Walrave, and Van Gool 2014; Lamphere 2014). A deeper understanding of adolescents' perceptions about sexting is needed to develop prevention and educational efforts and to identify avenues for future research (Walker, Sanci, and Temple-Smith 2013; Lippman and Campbell 2014). In this article, we will first review what is known about the media that are used to engage in sexting and the motives for and consequences of engagement in sexting behaviors. We will then report on our own study, in which we have investigated adolescents' perceptions of the technological and social context that surrounds teenage sexting.

Media and the Motives for and Consequences of Engagement in Sexting Behavior

#### Media

Sexually explicit photographs can be sent through several online and mobile platforms. To date, very little is known about which applications youth are utilizing to send sexting photographs. In a survey study that was conducted in 2011, Drouin et al. (2013) report that the sending of digital sexually explicit photographs and videos among young adults, aged 18 to 26, mainly occurred through text messaging. Ringrose et al. (2013) found in a qualitative study conducted in 2011 among British adolescents (between 12 and 15 years old; years 8 and

10 of the British educational system) that sexting mostly occurred through Blackberry Messenger, the instant messaging and video telephone application of BlackBerry devices, which can also be downloaded on other mobile operating systems. However, the results of these two studies might be outdated considering the widespread introduction of smartphones and new communication applications. One of these applications is Snapchat, an app for the sharing of digital text messages, photographs, and videos that was released in September 2011 (Evan 2012). Photographs and videos that are sent through Snapchat only remain visible for 1 to 10 seconds, after which they disappear. The application has gained media attention because of its alleged use by teenagers to engage in sexting (Wortham 2013). However, third-party developers have found a way to circumvent the automatic deletion of Snapchat messages and have designed other apps, such as Snap Save, that make it possible to save photographs and videos without letting the sender know (Guarini 2013). There is a dearth of research that assesses to which extent smartphone applications (e.g., Snapchat) and other mediums are used to engage in sexting.

#### Motives

For some teenagers, engagement in sexting could play a role within the developmental period of adolescence (Walrave et al. 2015; Temple, Le, Peskin, Markham, and Tortolero 2014; Temple and Choi 2014). During adolescence, teenagers begin developing their sexuality and start experimenting with dating and forming romantic relationships (Collins 2003). Creating and sharing self-made, sexually explicit photographs via cell phone or internet applications might provide young people with an additional venue to explore their sexuality and their sexual identities (Karaian 2012; Karaian and Van Meyl 2015; Šmahel and Subrahmanyam 2014; Walrave et al. 2015).

Previous studies have found that adolescents most commonly engaged in sexting within a romantic relationship (Lippman and Campbell 2014; Albury and Crawford 2012; Strassberg, Rullo, and Mackaronis, 2014). Within this context, sexting is used to flirt with a partner or romantic interest (Ringrose et al. 2013; Albury and Crawford 2012). Because of the disinhibiting characteristics (e.g., invisibility and asychronic communication) of electronic communication (Suler, 2004), some adolescents might find that engaging in sexting is a more comfortable way to express their feelings and sexual desires than in-person communication (Le, Temple, Peskin, Markham, and Tortolero 2014). Sexting can also be used to sustain intimacy in a long-distance romantic relationship (Walker, Sanci, and Temple-Smith 2013). Sexting might also be a precursor of sexual activity among adolescents, for instance to make sexual advances or as a first step within a sexual relationship (Temple 2015). One study has found a positive longitudinal relationship between engagement in sexting and respondents' engagement in sexual activities one year later (Temple and Choi 2014). Sexting can also be an alternative way of expressing sexual interest or a substitute for sexual activity, for example for young people whose religion prohibits sexual contact before marriage (Lippman and Campbell 2014). Outside of a romantic relationship, reasons for engagement in sexting include the use of sexting messages as a joke or a bonding ritual (Albury and Crawford 2012), and for the lure of risk-taking, and, in some countries, the illegality of sending nude photographs through cell phone and internet applications (Walker, Sanci, and Temple-Smith 2013).

Sexting has also been linked to peer pressure both within and outside of a romantic relationship. Adolescents might feel that they have to engage in sexting because they are under the impression that the behavior is normative among their peers and that they need to engage in it in order to get attention from others (Walker, Sanci, and Temple-Smith 2013). Other studies have reported cases of explicit pressure, coercion, and threats by friends or

boyfriends toward individuals who did not want to engage in sexting (Ringrose et al. 2013; Walker, Sanci, and Temple-Smith 2013). A more subtle way to pressure someone into sending a sexting photograph consists of sending a sexting photograph of one's own in the hopes of getting a response (Walker, Sanci, and Temple-Smith 2013; Lippman and Campbell 2014). That young people might engage in sexting under pressure and yet regret the behavior is evidenced by a study that found that about 14% of high school students (ranging from freshmen to seniors) who had engaged in sexting expressed negative feelings about it (Strassberg, McKinnon, Sustaíta, and Rullo 2013). A recent study among young adults (with an average age of 20.6 years) has found that 20% of the respondents had been put under pressure to send a digital sexually explicit text message or photograph (Drouin, Ross, and Tobin 2015). Quantitative studies substantiate the findings about the role of peer pressure with regard to sexting. Using the theoretical frameworks of the Theory of Planned Behavior (Walrave, Heirman, and Hallam 2014), the Social Learning Theory (Van Ouytsel et al. 2017), or the Prototype Willingness Model (Walrave et al. 2015), researchers have found that the perceived social norms of peers were the most important predictors of adolescents' intentions to engage in sexting.

Young people's sexting behavior can also be explained from the perspective of media socialization. Several scholars have hypothesized that an increasingly sexualized media culture could influence young people's sexting behaviors (Chalfen 2009, 2010; Ringrose et al. 2013). One study has found that sending, receiving, and asking for sexting photographs was linked with the consumption of pornography (Van Ouytsel et al. 2014). Moreover, the researcher found that watching music videos, which are often sexually explicit in nature, was linked with asking for and receiving sexting photographs among boys (Van Ouytsel et al. 2014).

#### Risks and consequences of sexting behavior

Engagement in sexting is associated with risks such as the unauthorized distribution of the photographs. One study has found that, among high school students, one-third of the respondents had shared sexting messages with others without the permission of the creator (Fleschler Peskin et al. 2013). An AP-MTV study on sexting found that reasons for forwarding sexting photographs included the "assumption that others would want to see them" (52%), "a desire to show off" (35%), "as a joke" (31%), "to be funny" (30%), and "boredom" (26%) (Associated Press and MTV 2009). The social consequences of unauthorized distribution of sexting photographs seem to differ between boys and girls. In previous studies, involvement in sexting has been found to have almost no adverse social consequences for boys, and often has a positive impact on their peer group status (Walker, Sanci, and Temple-Smith 2013; Ringrose et al. 2013; Lippman and Campbell 2014). By contrast, engagement in sexting has been found to negatively impact the reputation of girls, who often become victims of name-calling and bullying if a sexting message is distributed (Walker, Sanci, and Temple-Smith 2013; Ringrose et al. 2013; Lippman and Campbell 2014). Engagement has also been linked with bullying victimization, and being a victim of cyberbullying (Wachs and Wolf 2015; Dake et al. 2012).

#### The Present Study

To date, the qualitative literature on sexting has been limited to samples from very specific socio-economic backgrounds or samples that include minors as well as adults. One study, for instance, predominantly included youth with a migration background or low socio-economic status (Ringrose et al. 2013), while another study included young people aged 15 to 20 in its sample, who were recruited through high schools as well as universities (with 48% of the respondents over the age of 18) (Walker, Sanci, and Temple-Smith 2013). The context in

which sexting occurs and the consequences associated with the behavior might, however, be very different for adolescents of high school age as opposed to young adults who are already attending university. Another limitation is that all of this research was conducted between 2009 and 2011 (Ringrose et al. 2013; Walker, Sanci, and Temple-Smith 2013; Lippman and Campbell 2014; Albury and Crawford 2012), which might mean that these studies do not fully account for shifts in adolescents' attitudes towards sexting or recent technological developments, such as the rise of smartphone ownership and the use of new communication applications.

The present study aims to fill these gaps in the literature by incorporating high school students' perceptions (between 15 and 18 years old) on sexting in Flanders, Belgium. The behavior is defined in our study as the sending of self-made, sexually explicit photographs via the computer or the mobile phone. Extending previous qualitative research, our study has three main research areas. First, we aim to investigate which media (i.e., which applications on cell phones and the internet) are perceived by adolescents to be used in sexting. Second, we aim to get a deeper understanding of adolescents' perceptions of the motivations of teenagers to engage in the behavior. Third, we aim to investigate how adolescents perceive the potential consequences of sending a self-made sexually explicit photograph via the computer or a cell phone. In this way, the study could provide a deeper understanding of the technological and social context in which adolescent sexting takes place.

Like other qualitative studies, some of the behaviors and experiences that were observed by the participants might be specific to the region where this study was conducted. The popularity of some of the specific applications or some specific motives to engage in sexting that were mentioned by the respondents might differ among regions, countries, and cultures. Therefore, we will discuss and contrast our results within the context of international sexting research, and international research on adolescent sexuality, and we will focus on how the results relate to adolescent development and the affordances of digital technologies.

#### Method

#### Sample and Procedures

A total of 57 adolescents (66.67% females; n = 38) were recruited in two secondary schools in Flanders, Belgium to participate in one of the 11 focus group conversations. The focus groups were a part of the qualitative research of the Teen Digital Dating Study, a larger study of the effects of digital media on adolescents' sexual and romantic relationship experiences, conducted between March and May 2015. Each focus group comprised of 3 to 8 participants. The respondents were between 15 and 18 years of age. All participants were offered refreshments and snacks during the focus group conversations. In one school the students also received a  $\in 10$  gift card that could be redeemed at a national chain of book stores. The lunch break or gap hours between two classes (e.g., when there was a gap in the school schedule or when the teacher was sick) were used to conduct the focus group conversations. The researchers recruited the participants through messages in the schools' digital learning environments. The respondents could sign up for the interviews by sending a message to the researchers. Students were told in advance that the focus groups would be about their media use and romantic relationships. Additionally, the researchers recruited the respondents by asking them in person whether they wanted to participate in the focus group when the focus group study took place during a gap hour in which there were no lessons. Since previous studies have found that sexting experiences differed among girls and boys (Ringrose et al. 2013; Lippman and Campbell 2014), the researchers decided to conduct same-sex focus groups (four male-only focus groups and seven female-only focus groups). Additionally, the use of same-sex focus groups was warranted because of the sensitive nature of the topic (Krueger and Casey 2009). The focus groups were moderated by one of three researchers.

#### Measures

The researchers used a semi-structured interview guide to make sure that all focus groups were conducted in a similar fashion. The questioning route was constructed by the researchers and is included in the appendix of the present manuscript. Instead of using the term "sexting," which might hold a different meaning for the adolescents and might not be used by them (Albury and Crawford 2012; Walker, Sanci, and Temple-Smith 2013), the researchers consistently referred to the sending of self-made, sexually explicit photographs. For the questions that concerned sexting, the respondents were asked about what they had observed among their peers. Since the study was conducted in groups, the moderator did not explicitly ask the students whether they had sent sexually explicit photographs themselves. Depending on the responses of the adolescents, the moderators rephrased some questions or asked additional questions if they wanted to delve deeper into specific issues that were brought up by the respondents.

### Data Preparation and Analysis

All focus group conversations were recorded and transcribed verbatim. In order to protect the participants' anonymity and privacy, the names of the respondents were removed from the transcripts and were replaced by a code. The code comprised of the focus group number (e.g., FG2) and a number that was given to each participant (e.g., R1). The moderator was assigned the letter M. Data were analyzed by two researchers using NVivo 10. The transcripts of the focus group conversations were reviewed by two researchers before they agreed that data saturation had been reached. Before the analysis started, the transcripts were

carefully read to enable the researchers to become familiar with the conversations. First, the researchers provided every answer that was given with a code, using an open coding procedure for the transcripts of the first three focus group conversations. Second, the researchers grouped the different codes according to their thematic similarities. By means of discussion, the researchers identified common themes in the data. Overlapping codes were merged into one overarching code. The codes were structured according to thematic categories (e.g., all codes regarding the consequences of sexting behavior were grouped together). They were also structured according to their hierarchical relationships in so-called parent and child codes. The resulting tree-structure enabled the researchers to code the eight remaining focus group conversations. Afterward, the transcripts from all of the focus group conversations were reviewed to check whether each response was properly coded. The results were structured according to three themes that emerged from the transcripts and the key research areas: (1) the medium used to engage in sexting, (2) the motives for engaging in sexting, and (3) the perceived consequences of engaging in sexting. Table 1 summarizes the different themes that were discussed during the focus groups and shows the number of focus groups that these themes were discussed in.

Additionally, the researchers selected three distinct sexting anecdotes. These stories described sexting experiences that were not representative of general perceptions and experiences and, therefore, could not be included in the regular results section.

The quotations that are provided in the results section were translated by the researchers from Dutch into English. They were intentionally translated as literally as possible to reflect the language that was used by the respondents. Where the original meaning or intent of the quotation might be difficult to understand, additional contextual information has been added in brackets.

#### [PLEASE INSERT TABLE 1 ABOUT HERE]

#### Ethical Procedures

Before the start of the focus group conversations, participants were given an information sheet with a description of the study's aims and protocol. The moderator read the information together with the students and pointed out to the respondents that their participation was voluntary, that they could skip questions, and that at any time they could choose to cease participating. The moderator assured the students that their responses would remain anonymous and confidential. Written consent of the participants was obtained prior to the start of the conversations and a passive parental consent procedure was used. The study's methodology was approved by the ethical committee of the University of Antwerp.

#### Limitations of our methodology

The methodology of this study also comes with some limitations that should be acknowledged when interpreting the results. First, we worked with a convenience sample, therefore it is not representative of a larger population. The participants might have selfselected for this study, as we relied on volunteers, and students with a particular interest in media or romantic relationships could have been likely to sign-up than others. Moreover, all participants were between 15 and 18 year old. Future studies could also include younger adolescents to assess experiences with sexting among young adolescents.

Second, our focus group conversations mainly concentrated on how adolescents perceived motivations for and the social consequences of engaging in sexting behavior in an effort to understand the social context of sexting. Our study did not inquire whether the respondents had engaged in sexting themselves. In order to get a more in-depth perspective of young people's experiences with sexting, future studies could extend our findings by using alternative qualitative methods such as open questionnaires or private interviews.

Third, the focus of our conversations was on the reactions to and perceptions of sexting within the adolescent peer group. Our study did not focus on how adults who are important in adolescents' lives, such as parents and school faculty, reacted to sexting incidents. Future research could focus on the perceptions of parents or educators with regard to sexting incidents or on how adolescents perceive adults' reactions towards the behavior.

Finally, our study did not assess the sexual orientation of the respondents. Future research could focus on the perceptions of sexting among sexual minority youth. Likewise, future research could also pay attention to the experiences of other specific groups, such as ethnic minority youth.

#### Results

#### Media Used to Send Sexting Messages

When asked through which digital applications the sending of self-made, sexually explicit photographs takes place, the respondents most often mentioned that they observed that smartphone applications such as Snapchat and WhatsApp were used. Snapchat is an application that is mainly used for sharing digital text messages, photographs, and videos. Senders can control the length (between 1 and 10 seconds) that the messages can be viewed by the recipients before they disappear. WhatsApp is an instant-messaging application through which users can exchange text messages, photographs, and audio and video messages. Other applications that were mentioned where Facebook and its mobile application Facebook Messenger, Kik (i.e., an application similar to WhatsApp), Instagram (i.e., a social networking site based on photographs and videos with a feature that allows users to send private messages), and iMessage (i.e., the messaging service for iOS). With regard to WhatsApp, one respondent noted its speed as an advantage because "you don't have to upload for like half a minute. That makes it convenient" (FG6R3; *boy*).

However, Facebook and other forms of digital communication such as e-mail, were considered by the respondents as being too "open" and too "direct." They were also considered to be more formal ways of communication than smartphone applications. Moreover, the respondents perceived that Facebook and e-mail had a higher risk with regard to the unauthorized distribution of photographs, as the photographs could be accessed more easily and could be stored more easily (as opposed to applications such as Snapchat where the photograph is set to disappear after seconds). A participant indicated that he considered smartphone applications to be more practical because of the ease with which sexually explicit photographs could be taken and uploaded and because "you have it to hand. No computer screen" (FG7R2; *boy*). This is also illustrated by the following two focus group conversations:

[M]: Yeah. Okay. So we talked a little bit about this earlier but I will ask it again anyway. So through which apps or websites does it happen most often?
[FG7R4]: Snapchat
[M]: Snapchat?
[FG7R4]: Yeah, Snapchat and WhatsApp, I suppose. Because Facebook is so...
[FG7R1]: That is more open.
[FG7R3]: Yeah it is more open
[FG7R1]: You would feel that it more unsafe.
[M]: And why would you feel so?
[FG7R1]: It is a big social networking site
[FG7R3]: And yeah, you can access it through a tablet, your cell phone, your computer, everything.... WhatsApp is more just via your cell phone.
(FG7; *boys*)

[All respondents talking over each other]: Snapchat

[FG8R5]: Just with seconds... yeah...

[M]: Just with seconds... also others [mediums]? Or exclusively via Snapchat?[R2]: No because otherwise it is really... If you send it through Facebook or so, than it is really...

[R1]: Well yeah... the girl I told about earlier.... This happened before Snapchat existed. So she sent it just through regular e-mail.[M]: Yeah. Okay.

[R2]: Oh yeah... In that case you have really a higher chance that that happens [the unauthorized distribution of the girl's pictures].[R1]: well yeah, I mean, the pictures are kept in that case.(FG8; *girls*)

Snapchat was most frequently mentioned in the focus group conversations as a vehicle for sending self-made, sexually explicit photographs. The participants noted that one of the major advantages of Snapchat over other applications is that "you can send it and it disappears immediately. So that's ideal" (FG4R4; *boy*). Moreover, some respondents (in five of eleven focus groups) also indicated that an extra advantage of Snapchat included the software feature that allows users to set the length of time that photographs are made visible to the receiver. Although adolescents indicated that they believed Snapchat was a popular medium for sending sexually explicit photographs, they were also aware of the possibility that a screenshot could be taken or that the messages could be stored on the receiver's smartphone using applications such as Snapsave. One male respondent observed that, even when his peers were aware of these risks, they would still use the app to engage in sexting: "But with Snapchat it is more because they think, 'You can't save those.' But it actually happens in other ways [implying that Snapchat messages can be saved using third-party applications]. But they say like 'yeah'. They feel safer then. And that's why they send it through Snapchat' (FG7R1; *boy*).

#### Why Do Teenagers Send Sexually Explicit Photographs?

Both female and male respondents observed that sexually explicit photographs were sent within the context of dating or a romantic relationship, either because it was expected by the romantic partner or because it was used to flirt with a love interest. According to the respondents, girls would send sexually explicit photographs to their boyfriends as a sign of love or as a surprise. When asked whether girls were sometimes pressured into sending these photographs, most respondents (both female and male) acknowledged that they had observed boys pressuring girls to send a sexting message under the pretense that they "have to prove their love" (FG7R1; *boy*). One of the female respondents said: "Yes. But most of the times if you don't do it, then they well say, well don't you trust me? We are in are in a relationship, right?" (FG1R1, *girl*). Respondents described that they had observed that boys would convince girls to send self-made, sexually explicit photographs by pleading with promises and reassurances such as "it is just for me," "I love you," and "I miss you so much, can I see that [body]" (FG5R1; *girl*). As one boy acknowledged: "I know someone who once said to a girl like 'show me how much you love me.' But he actually just wanted the picture" (FG7R1; *boy*). According to accounts in two of eleven focus groups, another motivation girls felt for honoring these requests was the fear of losing a boyfriend if they neglected to comply. One female respondent noted:

I am sorry but girls are sometimes really in love with someone. They are bad boys most of the time. Sometimes, not always. And they absolutely want a picture of you. And then they [the girls] are just too in order not to lose him, because they [boys] mostly threaten so like: 'if you don't send that [a naked photograph] you prove that you don't love me and such.' (FG3R4; *girl*)

According to the respondents, self-made, sexually explicit photographs could also be sent in order to flirt with a potential romantic partner. Boys from one focus group had mixed feelings about this practice. As one boy described:

That's actually to seduce you that but as [FG7R2] said, I usually think, 'no, if she does it with me, she will do it with everyone'. (FG7R1; *boy*)

Among the focus groups with boys, a third reason for sending sexting photographs emerged. In two of eleven focus groups, some boys believed that girls would send self-made sexually suggestive photographs to get attention from boys and to be complimented on their looks:

[FG4R3]: They [girls] do it on purpose that kind of a picture. They act as if it's not sexually explicit, but you can see that it is heavily sexually explicit because you can

see the upper boobs or so.
[FG4R1]: Or like... I don't know... but 'look at this,' so a new haircut or so.
[FG4R4]: So 'look at my new haircut...'
[FG4R3]: So 'look at my hair,' but suddenly. You see like...
[FG4R1]: But you see like...
[FG4R3]: Do you understand?
[M]: Yeah
[FG4R3]: When this here is completely open [points at chest] but like: 'look at my hair.'
(FG4; boys)

Individual respondents also mentioned other motives for engaging in sexting, such as sexual desire, being part of a long-distance relationship, and to test a girl's character when just entering a romantic relationship. However, these motivations were not repeated across our different focus group conversations or they were not elaborated on by the respondents.

### Perceived Consequences of Sexting Behavior

Across all focus groups, the greatest risk associated with sexting behavior was identified as the chance that the digital self-made sexually explicit photograph would be forwarded to others. Distributing a sexting photograph could occur in different ways. It could happen by forwarding or publishing the sexually explicit photograph or a screenshot thereof online. Likewise, the digital sexually explicit photographs could also be exposed to others by showing it on a smartphone screen. In ten of eleven focus groups, respondents identified boys and not girls as the most likely to distribute a sexting photograph: "Boys will show it to their friends but girls aren't like that" (FG3R4; *girl*). Some respondents attributed this gender difference to the fact that girls were more "respectful" than boys. Others perceived a general lack of interest among girls in showing and exchanging self-made, sexually explicit photographs. One girl expressed: "I think that boys are more often like: 'ooh... breasts of a girl, come let me see that' than girls, who won't be like 'oh, yeah, a naked picture come [let me see]...'—not really" (FG9R3; *girl*).

Our respondents noted three ways in which sexting photographs could be abused. The first way was that boys could show the digital sexually explicit photograph to others in order to brag to their friends that they had received a sexually explicit photograph: "Because in any case, I am going to tell someone, 'yeah, she sent me a picture.' Maybe I won't show it, but I am definitely going to say, 'she sent me a picture" (FG7R2; *boy*). According to this respondent, merely telling other boys that he had received a sexting photograph from a girl without actually showing it could also lead to rumors, which could, in turn, damage the girl's reputation.

According to some participants, a second way to abuse sexting photographs was for the recipient to use them as a means for blackmailing the other person: "it will be used as a kind of weapon against her" (FG7R1; *boy*). Respondents described examples from within their peer groups in which someone would use sexting photographs to coerce the victim into participating in other types of sexual intercourse or threaten to release the digital self-made sexually explicit photographs in an effort to get back together after a breakup.

The third type of abuse consisted of forwarding the photograph after a breakup. Within this context, the photographs were distributed "out of revenge" by the ex-partner. The unauthorized distribution of a digital self-made, sexually explicit photograph would have a negative impact on the reputation of the depicted individual, primarily girls (mentioned in eight of eleven focus groups). As one respondent suggested, it's easy to associate real-life individuals with photographs: "so then you know like 'aah yes that's the girl from the naked picture" (FG2R2; *girl*). Respondents in some focus groups observed that, if a digital selfmade, sexually explicit photograph from a girl surfaced, then she would be called a "whore" or a "slut" by her peers. Other respondents said that when a sexting incident occurred their peer groups did not engage in bullying or name-calling, but just moved on without paying much attention to it. Respondents indicated that they thought there were almost no harmful consequences for leaking a self-made sexually explicit photograph of a boy as opposed to a self-made sexually explicit photograph of a girl. Some respondents attributed the different perceptions of female and male involvement in sexting to differing values with regard to depictions of female and male sexuality: "they just sent pictures of their chest but, if you distribute that, it's nothing extraordinary, but with a girl['s chest] it is..." (FG9R4; *girl*). Others attributed these differences to the fact that boys were perceived as more "cool" than girls as well as the general perception that "boys would also talk more openly about sex and such" (FG2R5; *girl*). The following conversation among a group of girls exemplifies the differences in the perceived social acceptability of the exposure of photographs of a male body as opposed to images of a female body:

[FG1R4]: But isn't it that most boys like work out, and their body or so... and if they send a naked picture, well send pictures, then they feel proud and such because of their body or so? Do you understand?

[M]: Yeah.

[FG1R4]: And if it is posted for example on the internet or so... There are a lot of girls who will say, 'oh my god he has a very nice body' and such... But they won't think, 'oh my god, he has published a naked picture.' Do you understand? [M]: Yeah.

[FG1R4]: Or with girls it is like, 'oh my god, she is a whore,' most girls say that, do you understand?

[Other respondents nod affirmatively.]

[FG1R4]: They say like, 'oh my god, she is a whore, she sent such a picture to her boyfriend. How stupid was she?'

[M]: So... girls will say these things about girls as well?

[FG1R4; FG1R2; FG1R5]: Yes

[FG1R4]: If I see a naked picture of a girl who sent it to her boyfriend, I really think, how stupid was she? Then I think: 'That's too bad, you shouldn't have done this.' (FG1; *girls*)

#### Sexting Anecdotes

In three of the eleven focus groups, one of the respondents spontaneously provided an elaborate anecdote about a sexting incident that he or she had witnessed. The three stories feature distinct reasons for why the adolescents had engaged in sending self-made, sexually explicit photographs through digital applications. They also highlight different ways in which the sexting incidents came to the attention of the peer group. Because of the fact that either

the motivations to engage in sexting or the outcomes of the behavior differed from those that were mentioned by the respondents in general, we decided to include these three anecdotes in the results section.

The first anecdote concerned a 14-year-old girl. A boy she liked "had sent her something like, 'yes, I do want to be with you if you send a naked picture of yourself,' and she did that. He has forwarded it to the entire school" (FG8R1; *girl*). According to the respondent, the boy never intended to enter into a romantic relationship with the girl. As a consequence of the unauthorized distribution of the photograph, the victim was bullied by her peers.

The second anecdote dealt with a sexting incident during a summer camp. The incident appeared to be motivated mainly by sexual experimentation. It concerned a boy and a girl who had never met each other in person but knew that they would attend the same summer camp:

They had also started talking on Facebook and started to act weird. The boy was an enormous player [slang word for a boy who flirts or dates with several girls at the same time] and like, 'Hey, do you want to have sex during the camp?' And then the girl had also sent such pictures to the boy because he had convinced her so much. And then it turned out that the boy didn't mean any of it, and he showed the picture to everyone during the camp. (FG9R3; *girl*).

According to the respondent, the boy did not electronically forward the digital sexuallyexplicit photographs to the other summer camp members, but rather showed them on his smartphone: "He showed it just to appear cool among his friends, like 'hey, look at what she has sent,' and, apparently, he didn't only have pictures of the girl on his cell phone but also of many other girls so… he was really troubled and really perverted. I don't get why those girls did that" (FG9R3; *girl*).

The respondent elaborated on the response of the staff as well as the other camp members. The incident only surfaced near the end of the summer camp, as staff members had tried their best to "keep the event under wraps" by having conversations with the boy and girl who were involved. The girl did not experience bullying from other camp members and the respondent described that girls in the camp did not really react to the incident. The boys had mixed reactions, with some "saying so like: 'ooh... well done,' probably to appear cool and other boys like 'hey... that's improper behavior.' So in general: just disgust" (FG9R3, *girl*). The reactions of other boys were mixed, according to the respondent:

His friends were used to that with this boy, because they all knew him. So they said, 'yeah, yet again one of the many, let us see so...' and the boys who didn't know him, they were like a mixture. I think that they said to us [girls] like 'but, that's very disgusting,' but if they were among boys, they would act differently. Well yeah, I think so... (FG9R3, *girl*)

The third anecdote concerned a 15-year-old girl of whom digital self-made sexually explicit photographs had allegedly surfaced online. News of the incident rapidly spread across different schools in the area. It was not an issue among the students of the girls' school, as many were on a school trip abroad, which was immediately followed by a week of holidays. This made it "old news" for them when they returned to school after their vacation. The holidays stifled the rumors. The ex-boyfriend had distributed these sexually-explicit photographs after the breakup. However, after the incident, it became clear that "it was not a real naked picture" (FG11R2; boy), "but he had included some naked pictures that were not from her but from other people" (FG11R4; boy). By taking anonymous naked photographs that he had found online and mixing them in with regular photographs in which the victim was (lightly) clothed, the boy created the impression that this girl had sent sexually explicit photographs to him, although she had never actually engaged in this behavior.

#### Discussion

Through focus group conversations, our study investigated how adolescents perceived the media that are used to engage in sexting as well as the motives for and consequences of engaging in the behavior. In line with previous studies (Van Ouytsel et al. 2014; Temple and Choi 2014), sexting was defined in our study as the exchange of self-made, sexually explicit photographs through the computer and mobile phones.

Apart from Drouin et al. (2013) and Ringrose et al. (2013), who found in their samples that sexting mostly took place through text messaging and Blackberry Messenger respectively, previous qualitative studies did not focus on the types of media that were employed to engage in sexting. Respondents from our sample observed that sexting primarily takes place through applications that are exclusive to smartphones, such as Snapchat and WhatsApp. It appears that smartphone messaging applications are perceived by participants as a more convenient, safe, and informal means of sexting communication than other media, such as e-mail or Facebook, regardless of the actual risk of unauthorized distribution. Even when users were aware that messages sent through Snapchat could be stored by the receiver, our respondents observed that they would still use this application to engage in sexting because of their perception that it had fewer risks than other digital applications. A possible explanation for the perception that Snapchat has fewer risks than other digital applications, might be associated with the software features that are unique to the Snapchat application, such as the feature that allows the sender to set the length of time the photographs will remain visible to the receiver before disappearing. These features might provide some adolescents with the feeling that they are more or less in control of the terms under which they share sexually explicit photographs. One of the particular advantages of using a smartphone over other types of devices, such as desktop computers, laptops or tablets, might be that the users can take the devices with them and access the sexting messages from any place where they have access to the internet (Fox and Potocki 2014). This might provide adolescents with the advantage that their smartphone usage can slip under the parental radar, while the usage of other devices can be monitored more easily, as they might be located in locations other than their own bedrooms and they might be shared with other family members (Mascheroni and Cuman 2014). Similarly, a previous study has found that youth whose cell phone plans were paid for by their parents, and therefore more likely to be subject to parental supervision, were less likely to engage in sexting than youth who had to pay for their own plans (Wolfe, Marcum, Higgins, and Ricketts 2014). Future research could focus on how the affordances of technological devices such as smartphones play a role in risk perception and acceptability with regard to sexting. As Fox and Potocki (2014) have suggested, a technology acceptance model could be suited to the study of why users would engage in sexting while using certain devices or applications.

According to the observations of our respondents, adolescent sexting mostly occurs with the intention to flirt and within the context of romantic relationships. The respondents noted that sexting photographs could be sent as a sign of trust or as a gift to their romantic partner. This result suggests that some adolescents use sexting to strengthen mutual feelings of trust and commitment within their romantic relationships (Fox and Potocki 2014). Sexting might, therefore, be regarded as a form of self-disclosure within their romantic relationsips. Selfdisclosure is the process of making the self known to others (Jourard and Lasakow 1958, 91). Trusting a romantic partner with personal information about oneself plays an important role within the formation of dating and romantic relationships, and has been linked with a higher confidence as an intimate partner and a higher perceived relationship quality (Sprecher and Hendrick 2004). Like the disclosure of personal information, such as secrets, the sharing of sexually explicit photographs could play a similar role in creating a feeling of intimacy within dating or romantic relationship. Although some studies have begun to explore if and how sexting is related to relationship satisfaction among adults (McDaniel and Drouin 2015; Parker, Blackburn, Perry, and Hawks 2012), more in-depth research is warranted to explore how sexting can fulfill similar needs among adolescents and how teenagers might use sexting in similar ways for the purpose of maintaining their relationships.

Respondents also noted that some girls might engage in sexting out of the fear of losing a boyfriend or not being able to start a romantic relationship with boys they like. This finding is in line with research among college students, which has found that females often engaged in sexting in order to make their romantic partner happy (Renfrow and Rollo 2014; Englander 2015). This extends previous qualitative studies on adolescent sexual behavior that have found that girls often feel obliged to engage in sex in order not to lose their partners (Hird and Jackson 2001; French 2013). The observations of our participants suggest that similar motivations play a role in sexting, which is an online form of sexual behavior.

Although our participants mentioned that girls would often be put under pressure to engage in sexting and that they felt they had to engage in sexting to "prove their love", they did not mention that boys would explicitly threaten girls to coerce them into sexting, as was previously found by Walker, Sanci, and Temple-Smith (2013, 699), who noted that girls often felt "coerced, threatened or bribed by boys to produce and send photographs." According to the observations of our respondents, however, rather than threaten them, boys mainly try to convince girls by pleading with them and reassuring them of their mutual love. Our finding that high school students who are pressured to engage in sexting, experience emotional forms of pressure rather than physical threats, is in line with research on offline forms of sexual coercion (Struckman-Johnson, Struckman-Johnson, and Anderson 2003) and research on sexting coercion among college students (Drouin, Ross, and Tobin 2015; Englander 2015). Struckman-Johnson, Struckman-Johnson, and Anderson (2003) found in their study on "postrefusal sexual persistence", which they defined as "the act of pursuing sexual contact with a person after he or she has refused an initial advance" (Struckman-Johnson, Struckman-Johnson, and Anderson 2003, 78) that the two most frequent coercion tactics with regard to offline forms of sexual behavior were 'persistent kissing and touching', which 62% of their participants had experienced, and 'emotional manipulation and deception' (this included repeated requests and telling lies), which was experienced by 60% of the respondents. Experiences of 'physical force and harm' were the least prevalent, with only 28% of respondents reporting experience with one of these tactics. Within the context of sexting, Drouin, Ross, and Tobin (2015) found that 20% of their sample of young adults had experienced that their partner had tried to coerce them into sending a sexting message (defined as the sending of a sexually explicit text message or picture). In line with the study by Struckman-Johnson, Struckman-Johnson, and Anderson (2003) the researchers also found that the most common forms of coercion were emotional in nature such as "making the partner feel obligated" (10% respondents reported this) and persisting on sending the message (12%). A limited number of participants had experienced physical forms of coercion or threats of physical force (different forms ranging between 1% and 2%). Drouin, Ross, and Tobin (2015) also found that these experiences of sexting coercion were linked with symptoms of anxiety, depression and traumatic stress. Englander (2015), found in her study that of the 27% of college students who had send a sexually explicit picture, 12% always felt pressured or coerced and 58% sometimes or partly felt pressured and coerced, with females being more likely to feel pressured than males.

With regard to the misuse of sexting messages, our study found that adolescents perceived that a girl's engagement in sexting could be exposed if a boy wanted to brag about his experience to his peers. The most commonly mentioned reason for distributing a sexting message was out of revenge after a romantic breakup. Another motive for misuse included coercion in an effort to trap the partner into staying in a romantic relationship or to solicit other types of sexual contact. According to our respondents, a leaked sexting message did not always lead to bullying and name-calling. Although the victim would feel ashamed, our respondents noted that their peer group would quickly move on without resorting to hurtful comments. One potential explanation for this finding might be that sexting is becoming more normalized for adolescents and a sexting incident is considered less problematic, because of its relative high prevalence rates among youth. This finding might also be explained by the fact that our sample consisted of older adolescents who were enrolled in the last two years of secondary education. It is unclear whether the peer group reaction about the unauthorized distribution of a sexually explicit photograph, differs across age groups. Yet another explanation might be that particular types of sexting photographs are more likely to elicit bullying than others or that sexting within certain relationship contexts might be linked with a higher risk of unauthorized distribution. Research by Drouin et al. (2014) has for instance shown that college students who engaged in sexting within casual relationships were five times as likely to have their sexting photographs forwarded than those who had engaged in sexting with a committed partner.

Similar to previous studies (Walker, Sanci, and Temple-Smith 2013; Ringrose et al. 2013), our respondents, both in the female and male focus groups, had gendered perceptions about the exposure of sexting materials and its implications. That were reflective of a sexual double standard towards the different roles of boys and girls in sexting behavior (Rice and Watson 2016; Ringrose and Harvey 2015; Garcia et al. 2016). The respondents observed that girls would be experience pressure to engage in sexting but they did not mention any obligations that boys might feel to send self-made sexually explicit photographs. Participants also perceived that girls would not engage in the unauthorized distribution of sexting messages and assumed a more active role for boys. Our respondents were also under the impression that girls were less inclined to forward sexting photographs than boys. Likewise, the adolescents in our study believed that the exposure of a boy's self-made, sexually explicit photograph almost never had harmful consequences, as depictions of their bodies were less

sexually charged than those of girls (especially the chest area). This is similar to research by Ringrose and Harvey (2015) who found that boys' sexually explicit photographs, especially those who displayed the ideal of male muscularity, were socially rewarded for boys with positive comments, whereas girls' sexually explicit photographs were often criticized. Gender differences in how the consequences of engagement in sexting are perceived, were also found in quanitative research among adults. Garcia et al. (2016) found in a study among adults, that men are less likely to be upset if the receiver of their self-made sexually explicit photographs would share it with others as opposed to women. Adult women were also more likely than men to believe that engagement in sexting could cause damage to their reputations, careers, self-esteem and current relationships than adult men. Our findings are similar to that of the observations by critical scholars who found that in discourses about sexting, both among adults as well as adolescents, females' sexual-exploration would lead to their vicitmization and exploraton (Rice and Watson 2016), whereas this narrative is absent for males, whose sexual behaviors are perceived to be less risky and are often associated with positive social rewards. Our findings are consistent with previous studies in English-speaking Western countries (Walker, Sanci, and Temple-Smith 2013; Ringrose et al. 2013), in which similar attitudes were found (e.g., that the unauthorized distribution of a sexting messages is considered to have harmful social consequences for girls but not for boys). It appears that gendered perceptions about sexting are also prevalent in other countries such as Belgium. We cannot draw any firm conclusions from our data as to where these gendered norms about sexting come from. It might be that they stem from the gendered media discourse about sexting, where similar opinions and perceptions are perpetuated (Draper 2011). However, they could also be an extension of existing cultural norms with regard to expectations about gender roles and sexual behaviors (Fox and Potocki 2014).

The respondents indicated that sexting messages did not have to be forwarded or published on websites in order to cause damage. They could also be shown on the smartphone to others as a proof of their experiences. However, reputational damage could not only be induced by showing or forwarding sexting photographs. Respondents noted that similar effects could be achieved by spreading rumors, which could damage an individual's reputation. The third anecdote, provided a more extreme example of this trend, and illustrated that a boy would even go so far as to create the impression that his ex-girlfriend had engaged in sexting by taking anonymous pornographic photographs he found online and mixing them in with other photographs in which the girl was seen clothed.

The other two anecdotes that were included in the results' section also provided vivid examples of how sexting experiences went wrong and how other adolescents reacted to it. The two stories differed from the norms and experiences that emerged during the focus group conversations. The first anecdote was a more extreme manifestation of the general observation that some girls might feel pressured to engage in sexting, as they are afraid to otherwise lose their boyfriend. The girl in this anecdote appeared to be explicitly pressured by the boy to send a sexting photograph under the false promise of entering into a romantic relationship with her. Given their limited experience with romantic relationships, some young adolescents might not be able to adequately recognize abusive behaviors and mistake them for signs of love. This is similar to research on teen dating violence which found that some forms of surveillance which were regarded as abusive by dating violence scholars, were seen as unproblematic by teens themselves (Baker and Helm 2010). The motives for engagement in sexting in the second anecdote were driven by sexual experimentation, which was only mentioned in two of eleven focus groups by adolescents when discussing motives for engagement in sexting. It is in line with previous research which found that sexting was often motivated by sexual experimentation and hook-up behavior (Hudson, Fetro, and Ogletree

2014; Walker, Sanci, and Temple-Smith 2013). The fact that the boy collected multiple pictures on his phone and showed them to his friends to "appear cool" is similar to findings from Ringrose et al. (2013, 313) who found that some boys would collect sexting photographs of girls and that these photographs would function as "*proof* to his friends, revealing his popularity and power". Although these might be peripheral sexting experiences, they are interesting because of the risks and the consequences that were involved with the behaviors that were described by the respondents. It might be possible that these "extreme" cases are often discussed among peers and that these stories might be more salient when adolescents think about sexting. Moreover, it might be that, in contrast with such extreme stories, other problematic situations related to sexting, such as pressure from a romantic partner, may appear less severe to young people. In other words, extreme incidents in which sexting went wrong and came to the attention of the peer group might influence adolescents' perceptions of the risks involved with engagement in sexting. In turn, they might be less critical of potential abusive, yet less extreme, sexting situations that they experience themselves.

Our study has contributed to the understanding of why adolescents engage in sending self-made, sexually explicit photographs through computer and mobile phones, and how they perceive the potential risks and consequences of this behavior. Future studies could focus on adolescents' perceptions of additional risks and consequences that did not emerge in the present study, and might play an influential role in adolescents' sexting behavior. One of these domains includes the legal aspects surrounding sexting. For instance, it would be interesting to know whether adolescents are aware of the potential legal consequences that are associated with the behavior, and to investigate whether this information is taken into account when they engage in the unauthorized distribution of sexting photographs. Another domain for future research could consist of the impact of a sexting on school and family life, by investigating how adolescents' perceive the impact of a sexting incident on the family climate

and parent-child communication. This study could focus on what adolescents perceive as helpful parent-child communication strategies when discussing sexting. Future research could also consider how adolescents' perceive the handling of sexting incidents by teachers' and school counselors, and how they perceive prevention efforts about sexting in their school curricula. Finally, another area consists of whether adolescents that engage in sexting or the unauthorized distribution of sexting photographs, consider that these pictures might be used for further sexual exploitation, when these images end up in online spaces that are accessed by individuals outside of the peer group.

#### Implications

Our study leads to several implications for practice that could be used by teachers, health practitioners or prevention science researchers when discussing sexting with adolescents or when developing educational efforts about sexting.

First, the finding that some adolescents might feel that engaging in sexting through smartphone applications might lead to fewer risks than other mediums, might underscore the need for practitioners to discuss with adolescents that technical measures to engage in safe sexting behavior might have their limits and that even messages sent trough "safe sexting apps" can be saved or restored (Döring 2014). As Döring (2014) has suggested, practitioners, such as teachers, school counselors or school nurses, could focus on teaching adolescents other ways to safely, respectfully, and ethically engage in sexting, such as using photographs in which the sender cannot be identified (e.g., by not showing the head of the sender or by removing objects from the background that could be used to identify the creator of the photographs).

Second, the finding that some adolescents sometimes feel that they have to engage in sexting as a result of "post refusal sexual persistence" (Struckman-Johnson, Struckman-

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Johnson, and Anderson 2003, 78) emphasizes the need for sexting prevention efforts to focus on how adolescents cope not only with explicit pressure, but also subtle manipulation exercised by boys to convince their (potential) romantic partners to engage in sexting. Such prevention efforts could emphasize how girls can refuse to send sexting photographs without the fear of being rejected (Walrave et al. 2015). Inspiration for development strategies that can be adopted by young people to guide their interpersonal communication about sexting might be found in sexual risk reduction programs that promote condom use. Like refusing to send a sexting message, refusing sexual contact without a condom is also often accompanied by fear of a negative reaction (Brown et al. 2008; Tafuri et al. 2010). Brown et al. (2008) have found that effective programs on condom use should implement exercises in which adolescents are taught negotiation skills and effective communication styles, and in which misperceptions about consequences of demanding condom use are dispelled. In the same context, role-playing games in which students teach each other about condom use have been found to make individuals more aware of their own past behaviors; they have also been found to affect their usage intentions positively (Stone et al. 1994; Aronson, Fried, and Stone 1991). Future research could investigate how to develop effective negotiation strategies to cope with demands for sexting photographs, which could mirror strategies that have been successful in changing behaviors around condom use. These future studies could, for example, design and evaluate exercises in which students are taught how they can cope with pressure and pleas for sexting photographs and how they can deal with negative reactions when they refuse to send a self-made sexually explicit photograph via cell phone or internet applications. Drawing on experiences with condom use prevention programs, they could also focus on the development of exercises in which they learn to negotiate safer ways to engage in sexting (e.g., by demanding that the images would be removed, or by suggesting to senders of sexting photographs that they should not send images in which they can be identified). Just as interventions with regard to condom use dispel the perceived norms surrounding the behavior, it has been suggested that educational efforts about sexting should challenge the dynamics that might exist within romantic relationships (Walker, Sanci, and Temple-Smith 2013). They could, for instance, provide statistics to discuss the misperception that most adolescents engage in sexting, which might dispel the perception that sexting is normative in their peer group (Lippman and Campbell 2014; Walrave, Heirman, and Hallam 2014).

Third, the finding that norms about sexting are gendered, suggests that educational efforts about sexting could focus on gender dynamics and double standards in the context of sexting (Döring 2014; Ringrose et al. 2013). These could be tied in to a broader discussion about gender roles and gender equality within sexual and romantic relationships both online and offline. Educational efforts about sexting could also be aware of gender dynamics in their prevention messages, as previous research has found that sexting prevention efforts often blame girls for not preventing the unauthorized distribution of sexually explicit images (Karaian 2014).

#### Conclusion

The results of this study extend previous findings on the nature of adolescent sexting. By investigating adolescents' perceptions of sexting, we gained a deeper understanding of the norms of the technological and social context in which the behavior takes place. The perceptions of adolescents can be incorporated when developing educational and prevention efforts. Our adolescent participants observed that sending self-made, digital sexually explicit photographs mostly occurs through smartphone applications, which might be explained by the fact that they appear to provide some unique affordances, such as an enhanced feeling of privacy. Although our respondents mentioned positive motivations for engaging in sexting, such as love or romantic interest, they also observed that some girls felt that they had to send sexting photographs for negative reasons, such as the fear of losing their boyfriends or

because their romantic partners would plead or insist. According to our respondents, selfmade, sexually explicit photographs could be abused by the receiver to coerce and threaten a girl. The digital sexually explicit photographs could also be exposed if boys want to brag about their experiences to friends or take revenge after a romantic breakup. Our respondents held gendered perceptions of sexting behavior. Girls were perceived as less interested in receiving and distributing sexting messages, while the respondents hardly perceived any negative social consequences for boys who engage in sexting. Our study underscores the importance for practitioners to discuss with teenagers safe ways to engage in sexting, to teach effective communication strategies and to challenge gendered perceptions with regard to this behavior. References

- Albury, Kath, and Kate Crawford. 2012. "Sexting, consent and young people's ethics: Beyond Megan's Story." *Continuum* 26 (3):463-73. doi: 10.1080/10304312.2012.665840.
- Angelides, Steven. 2013. "'Technology, hormones, and stupidity': The affective politics of teenage sexting." *Sexualities* 16 (5-6):665-89. doi: 10.1177/1363460713487289.
- Aronson, Eliot, Carrie Fried, and Jeff Stone. 1991. "Overcoming denial and increasing the intention to use condoms through the induction of hypocrisy." *American Journal of Public Health* 81 (12):1636-8. doi: 10.2105/AJPH.81.12.1636
- Associated Press and MTV. 2009. *A Thin Line. 2009 AP-MTV Digital Abuse Study*. Executive Summary: MTV AP.
- Baker, Charlene K., and Susana Helm. 2010. "Pacific Youth and Shifting Thresholds: Understanding Teen Dating Violence in Hawai'i." *Journal of School Violence* 9 (2):154-73. doi: 10.1080/15388220903585879.
- Brown, Larry K., Ralph DiClemente, Richard Crosby, M. Isabel Fernandez, David Pugatch, Sylvia Cohn, Celia Lescano, et al. 2008. "Condom Use Among High-Risk Adolescents: Anticipation of Partner Disapproval and Less Pleasure Associated with Not Using Condoms." *Public Health Reports* 123 (5):601-7.
- Chalfen, Richard. 2009. "'It's only a picture': sexting, 'smutty' snapshots and felony charges." Visual Studies 24 (3):258-68. doi: 10.1080/14725860903309203.
- ———. 2010. "Commentary Sexting as Adolescent Social Communication." Journal of Children and Media 4 (3):350-4. doi: 10.1080/17482798.2010.486144.
- Comartin, Erin, Roger Kernsmith, and Poco Kernsmith. 2013. ""Sexting" and Sex Offender Registration: Do Age, Gender, and Sexual Orientation Matter?" *Deviant behavior* 34 (1):38-52. doi: 10.1080/01639625.2012.707534.

- Collins, W. Andrew. 2003. "More than Myth: The Developmental Significance of Romantic Relationships During Adolescence." *Journal of Research on Adolescence* 13 (1):1-24. doi: 10.1111/1532-7795.1301001.
- Dake, Joseph A., James H. Price, Lauren Maziarz, and Britney Ward. 2012. "Prevalence and Correlates of Sexting Behavior in Adolescents." *American Journal of Sexuality Education* 7 (1):1-15. doi: 10.1080/15546128.2012.650959.
- Diliberto, Gail Mattey, and Elizabeth Mattey. 2009. "Sexting: Just how much of a danger is it and what can school nurses do about it?" *NASN School Nurse* 24 (6):262-7. doi: 10.1177/1942602X09348652
- Döring, Nicola. 2014. "Consensual sexting among adolescents: Risk prevention through abstinence education or safer sexting?" *Cyberpsychology: Journal of Psychosocial Research on Cyberspace* 8 (1, article 9). doi: 10.5817/CP2014-1-9.
- Draper, Nora R. A. 2011. "Is Your Teen at Risk? Discourses of adolescent sexting in United States television news." *Journal of Children and Media* 6 (2):221-36. doi: 10.1080/17482798.2011.587147.
- Drouin, Michelle, Jody Ross, and Elizabeth Tobin. 2015. "Sexting: A new, digital vehicle for intimate partner aggression?" *Computers in Human Behavior* 50 (0):197-204. doi: 10.1016/j.chb.2015.04.001.
- Drouin, Michelle, Kimberly N. Vogel, Alisen Surbey, and Julie R. Stills. 2013. "Let's talk about sexting, baby: Computer-mediated sexual behaviors among young adults." *Computers in Human Behavior* 29 (5):A25-A30. doi: 10.1016/j.chb.2012.12.030.

Evan. "Let's chat." http://blog.snapchat.com/post/22756675666/lets-chat.

Englander, Elisabeth K. 2015. "Coerced Sexting and Revenge Porn Among Teens." *Bullying, Teen Aggression & Social Media* (March/April):19-21.

- Fox, Jesse, and Bridget Potocki. 2014. "Technology and culture: Sociocultural explanations for sexting." In Sexting and youth: A multidisciplinary examination of research, theory, and law, edited by T. C. Heistand and W. J. Weins, 95-122. Durham, NC: Carolina Academic Press.
- Fleschler Peskin, Melissa, Christine M. Markham, Robert C. Addy, Ross Shegog, Melanie Thiel, and Susan R. Tortolero. 2013. "Prevalence and Patterns of Sexting Among Ethnic Minority Urban High School Students." *Cyberpsychology, Behavior, and Social Networking* 16 (6):454-9. doi: 10.1089/cyber.2012.0452.
- French, Bryana H. 2013. "More than Jezebels and Freaks: Exploring How Black Girls Navigate Sexual Coercion and Sexual Scripts." *Journal of African American Studies* 17 (1):35-50. doi: 10.1007/s12111-012-9218-1.
- Garcia, Justin, Amanda Gesselman, Shadia Siliman, Brea Perry, Kathryn Coe, and Helen Fisher. 2016. "Sexting among US singles: prevalence of sending, receiving, and sharing sexual messages and images." *Sexual Health*:1-8. doi: 10.1071/SH15240.
- Guarini, Drew. "'Snap Save,' New iPhone App, Lets You Save Snapchats -- Without Letting The Sender Know." The Huffington Post. http://www.huffingtonpost.com/2013/08/09/snapchat-snap-save\_n\_3732477.html.
- Hudson, Heather K., Joyce V. Fetro, and Robertsa Ogletree. 2014. "Behavioral Indicators and Behaviors Related to Sexting Among Undergraduate Students." *American Journal of Health Education* 45 (3):183-95. doi: 10.1080/19325037.2014.901113.
- Hird, Myra J., and Sue Jackson. 2001. "Where 'angels' and 'wusses' fear to tread: sexual coercion in adolescent dating relationships." *Journal of Sociology* 37 (1):27-43. doi: 10.1177/144078301128756184.
- Jourard, Sidney M, and Paul Lasakow. 1958. "Some factors in self-disclosure." *The Journal of Abnormal and Social Psychology* 56 (1):91-8.

- Karaian, Lara. 2012. "Lolita speaks: 'Sexting,' teenage girls and the law." *Crime, Media, Culture* 8 (1):57-73. doi: 10.1177/1741659011429868.
- Karaian, Lara. 2014. "Policing 'sexting': Responsibilization, respectability and sexual subjectivity in child protection/crime prevention responses to teenagers' digital sexual expression." *Theoretical Criminology* 18 (3):282-99. doi: 10.1177/1362480613504331.
- Karaian, Lara, and Katherine Van Meyl. 2015. "Reframing Risqué/Risky: Queer Temporalities, Teenage Sexting, and Freedom of Expression." Laws 4 (1):18-36. doi: 10.3390/laws4010018.
- Klettke, Bianca., David J. Hallford, and David J. Mellor. 2014. Sexting prevalence and correlates: A systematic literature review. *Clinical Psychology Review* 34 (1):44-53. doi:10.1016/j.cpr.2013.10.007
- Krueger, Richard A., and Mary Anne Casey. 2009. Focus groups : a practical guide for applied research 4th ed. Los Angeles, California: Sage.
- Lamphere, Renee. 2014. "Prevalence & Research Methodology." In Sexting and Youth. A Multidisciplinary Examination of Research, Theory, and Law, edited by Todd C.
   Hiestand and W. J. Weins, 33-63. Durham, North Carolina: Carolina Academic Press.
- Le, Vi Donna, Jeff R. Temple, Melissa Peskin, Christine Markham, and Susan Tortolero.
  2014. "Sexual Behavior and Communication." In Sexting and Youth; A Multidisciplinary Examination of Research, Theory, and Law, edited by Todd C. Hiestand and W. Jesse Weins, 63-94. Durham; North Carolina: Carolina Academic Press.
- Lippman, Julia R., and Scott W. Campbell. 2014. "Damned if you do, damned if you don't...if you're a girl: Relational and normative contexts of adolescent sexting in the United States." *Journal of Children and Media*:1-16. doi: 10.1080/17482798.2014.923009.

- Mascheroni, Giovanna, and Andrea Cuman. 2014. "Net Children Go Mobile: Final Report. Deliverables D6.4 & D5.2." In. Milano: Educatt.
- McDaniel, Brandon T., and Michelle Drouin. 2015. "Sexting Among Married Couples: Who Is Doing It, and Are They More Satisfied?" *Cyberpsychology, Behavior, and Social Networking* 18 (11):628-34. doi: 10.1089/cyber.2015.0334.
- Parker, Trent S., Kristyn M. Blackburn, Martha S. Perry, and Jillian M. Hawks. 2012.
  "Sexting as an Intervention: Relationship Satisfaction and Motivation Considerations." *The American Journal of Family Therapy* 41 (1):1-12. doi: 10.1080/01926187.2011.635134.
- Renfrow, Daniel G., and Elisabeth A. Rollo. 2014. "Sexting on Campus: Minimizing Perceived Risks and Neutralizing Behaviors." *Deviant behavior* 35 (11):903-20. doi: 10.1080/01639625.2014.897122.
- Rice, Carla, and Erin Watson. 2016. "Girls and Sexting: The Missing Story of Sexual Subjectivity in a Sexualized and Digitally-Mediated World." In *Learning Bodies: The Body in Youth and Childhood Studies*, edited by Julia Coffey, Shelley Budgeon and Helen Cahill, 141-56. Singapore: Springer Singapore.
- Ringrose, Jessica, Laura Harvey, Rosalind Gill, and Sonia Livingstone. 2013. "Teen girls, sexual double standards and 'sexting': Gendered value in digital image exchange." *Feminist Theory* 14 (3):305-23. doi: 10.1177/1464700113499853.
- Ringrose, Jessica, and Laura Harvey. 2015. "Boobs, back-off, six packs and bits: Mediated body parts, gendered reward, and sexual shame in teens' sexting images." *Continuum* 29 (2):205-17. doi: 10.1080/10304312.2015.1022952.
- Stone, Jeff, Elliot Aronson, A. Lauren Crain, Matthew P. Winslow, and Carrie B. Fried. 1994. "Inducing Hypocrisy as a Means of Encouraging Young Adults to Use Condoms."

*Personality and Social Psychology Bulletin* 20 (1):116-28. doi: 10.1177/0146167294201012.

- Šmahel, David, and Kaveri Subrahmanyam. 2014. "Adolescent Sexuality on the Internet: A Developmental Perspective." In Adolescent Sexual Behavior in the Digital Age, edited by F.M. Saleh, A. Grudzinskas and A.M. Judge, 62-85. Oxford: Oxford University Press.
- Sprecher, Susan, and Susan S. Hendrick. 2004. "Self-Disclosure in Intimate Relationships: Associations with Individual and Relationship Characteristics Over Time." *Journal of Social and Clinical Psychology* 23 (6):857-77. doi: 10.1521/jscp.23.6.857.54803.
- Strassberg, Donald S., Jordan E. Rullo, and Julia E. Mackaronis. 2014. "The sending and receiving of sexually explicit cell phone photos ("Sexting") while in high school: One college's students' retrospective reports." *Computers in Human Behavior* 41 (0):177-83. doi: 10.1016/j.chb.2014.09.008.
- Strassberg, Donald S., Ryan K. McKinnon, Michael A. Sustaíta, and Jordan Rullo. 2013. "Sexting by High School Students: An Exploratory and Descriptive Study." *Archives of Sexual Behavior* 42 (1):15-21. doi: 10.1007/s10508-012-9969-8.
- Struckman-Johnson, Cindy, David Struckman-Johnson, and Peter B. Anderson. 2003.
  "Tactics of sexual coercion: When men and women won't take no for an answer." *The Journal of Sex Research* 40 (1):76-86. doi: 10.1080/00224490309552168.
- Suler, John. 2004. "The online disinhibition effect." *CyberPsychology & Behavior* 7 (3):321-6. doi:10.1089/1094931041291295
- Tafuri, Silvio, Domenico Martinelli, Cinzia Germinario, and Rosa Prato. 2010. "Determining factors for condom use: A survey of young Italian adults." *The European Journal of Contraception and Reproductive Health Care* 15 (1):24-30. doi: doi:10.3109/13625180903427683.

- Temple, Jeff R., Jonathan A Paul, Patricia van den Berg, Vi Donna Le, Amy McElhany, and Brian W Temple. 2012. "Teen Sexting and Its Association With Sexual Behaviors." *Archives of Pediatrics & Adolescent Medicine* 166 (9):828-33. doi:10.1001/archpediatrics.2012.835.
- Temple, J. R., & Choi, H. (2014). Longitudinal Association Between Teen Sexting and Sexual Behavior. *Pediatrics*, 134(5), e1287-e1292. doi: 10.1542/peds.2014-1974
- Temple, Jeff R, Vi Donna Le, Melissa Peskin, Christine Markham, and Susan Tortolero.
  2014. "Risky Behavior and Adolescent Development." In *Sexting and Youth: A Multidisciplinary Examination of Research, Theory, and Law*, edited by Todd C.
  Hiestand and W. Jesse Weins, 77-94. Durham, North Carolina: Carolina Academic Press.
- Temple, Jeff R. (2015). A Primer on Teen Sexting. JAACAP Connect, 2(4), 6-8.
- Van Ouytsel, Joris, Ellen Van Gool, Koen Ponnet, and Michel Walrave. 2014. "Brief report: The association between adolescents' characteristics and engagement in sexting." *Journal of Adolescence* 37 (8):1387-91. doi: 10.1016/j.adolescence.2014.10.004.
- Van Ouytsel, Joris, Koen Ponnet, and Michel Walrave. 2014. "The Associations Between Adolescents' Consumption of Pornography and Music Videos and Their Sexting Behavior." Cyberpsychology, Behavior, and Social Networking 17 (12):772-8. doi: 10.1089/cyber.2014.0365.
- Van Ouytsel, Joris, Michel Walrave, Koen Ponnet, and Wannes Heirman. 2015. "The Association Between Adolescent Sexting, Psychosocial Difficulties, and Risk Behavior: Integrative Review." *The Journal of School Nursing* 31 (1):54-69. doi: 10.1177/1059840514541964.

- Van Ouytsel, Joris, Michel Walrave, and Ellen Van Gool. 2014. "Sexting: Between Thrill and Fear - How Schools Can Respond." *The Clearing House: A Journal of Educational Strategies, Issues and Ideas* 87 (5):204-12. doi: 10.1080/00098655.2014.909380.
- Van Ouytsel, Joris, Koen Ponnet, Michel Walrave, and Leen d'Haenens. 2017. "Adolescent sexting from a social learning perspective." *Telematics and Informatics* 34 (1):287-98. doi: http://dx.doi.org/10.1016/j.tele.2016.05.009.
- Vanden Abeele, Mariek, Scott W. Campbell, Steven Eggermont, and Keith Roe. 2014.
  "Sexting, Mobile Porn Use, and Peer Group Dynamics: Boys' and Girls' Self-Perceived Popularity, Need for Popularity, and Perceived Peer Pressure." *Media Psychology* 17 (1):6-33. doi: 10.1080/15213269.2013.801725.
- Wachs, Sebastian, and D. Karsten Wolf. 2015. "Zusammenhänge zwischen deviantem und risikoreichem Onlineverhalten 12- bis 13-jähriger Kinder aus drei Ländern." In *Jahrbuch Medienpädagogik 12: Kinder und Kindheit in der digitalen Kultur*, edited by Kai-Uwe Hugger, Angela Tillmann, Stefan Iske, Johannes Fromme, Petra Grell and Theo Hug, 71-97. Wiesbaden: Springer Fachmedien Wiesbaden.
- Walker, Shelley, Lena Sanci, and Meredith Temple-Smith. 2013. "Sexting: young women's and men's views on its nature and origins." *Journal of Adolescent Health* 52 (6):697-701. doi: 10.1016/j.jadohealth.2013.01.026.
- Walrave, Michel, Wannes Heirman, and Lara Hallam. 2014. "Under pressure to sext? Applying the theory of planned behaviour to adolescent sexting." *Behaviour & Information Technology* 33 (1):86-98. doi: 10.1080/0144929X.2013.837099.
- Walrave, Michel, Koen Ponnet, Joris Van Ouytsel, Ellen Van Gool, Wannes Heirman, and Anouk Verbeek. 2015. "Whether or not to engage in sexting: Explaining adolescent sexting behaviour by applying the prototype willingness model." *Telematics and Informatics* 32 (4):796-808. doi: 10.1016/j.tele.2015.03.008.3

- Wolfe, Scott E., Catherine D. Marcum, George E. Higgins, and Melissa L. Ricketts. 2014.
  "Routine Cell Phone Activity and Exposure to Sext Messages: Extending the Generality of Routine Activity Theory and Exploring the Etiology of a Risky Teenage Behavior." *Crime & Delinquency*. doi: 10.1177/0011128714541192.
- Wortham, Jenna. 2013. "A Growing App Lets You See It, Then You Don't." In New York Times, February 8, 2013.

# Appendix

During the focus group conversations the following key questions (Q) and follow-up questions (FQ) about sexting behavior were part of the semi-structured interview guide.

Q1: Do you think that young people also send self-made sexually explicit pictures to each other, for instance to a romantic partner?

FQ1.1: Which apps or websites are best suited for this purpose? And why do you consider these specific apps or websites?

- Q2: Why would young people sent a self-made sexually explicit picture to each other? FQ2.1: Would some be pressured into sending sexually explicit pictures? If so, how would this happen?
- Q3: Are there any consequences involved with sending a sexually explicit picture?

FQ3.1: Can you provide any examples?

FQ3.2: Are these consequences different for boys than for girls?