

Sexting among adolescents

Jonas Burén

Degree of Licentiate in Psychology
Department of Psychology
University of Gothenburg
(December 11, 2018)

© Jonas Burén
Printing: Repro Lorensberg
Gothenburg, Sweden, 2018
ISSN: 1101-718X Avhandling/Göteborgs universitet, Psykologiska inst.

Abstract

Burén, J. (2018). *Sexting among adolescents*. Department of Psychology, University of Gothenburg, Sweden.

The present thesis aim to examine Swedish adolescents' experiences with sexting. As adolescents are in the midst of major developmental changes: physical, cognitive, and social ones, and in a period of sexual exploration, understanding of sexting among adolescents is important. Similar to other sexual activities, sexting is heavily influenced by the social context, for example family, peers and social norms. Although scientific research on adolescent sexting has burgeoned in recent years, several questions about adolescents' sexting experiences remain unanswered, such as who adolescents primarily send sexts to, and what the social norms about sexting is among adolescents and their peers. Studies 1 and 2, included in this thesis, were used to address these issues. Also, with the indication that sexting is a gendered phenomenon, gender was a central theme in this thesis. In **Study 1**, a total of 1653 adolescents (mean age 14.20) answered a questionnaire. Results showed that, depending on who the sexting partner was, prevalence rates ranged from 4.4% to 16.0% for sending sext, and from 23.5% to 26.8% for receiving sexts. It was most common for participants to send sext to a romantic partner, and the least common was to a stranger. Girls had more negative experiences of sexting, and felt more pressure to send sexts. Importantly, and although boys' experiences of sexting were more positive than were girls', a substantial share of boys also reported having negative experiences. Age, puberty, online risk-taking, and peer- and family support, predicted sexting, but different patterns emerged depending on whom the sext was sent to, and depending on gender. In **Study 2**, 719 answers to an open-ended question focusing on adolescents' perceptions of peer approval of sexting, were analyzed for content. The content analysis indicated that sexting could be seen as an acceptable activity given that certain circumstances were fulfilled, such as sexting within a romantic relationship or if both parties agree to sext. The adolescents also thought that girls were unfairly treated for sexting, that sexting held certain risks, and that some adolescents may engage in sexting for attention or pleasure. This thesis concluded with a discussion concerning the importance of considering who adolescent sext with, what risks may be perceived by some adolescents, and that sexting is a gendered and complex phenomenon that is heavily influenced by several factors around the adolescent.

Keywords: sexting, sexuality, adolescents, gender, internet, Bioecological model

Jonas Burén, Department of Psychology, University of Gothenburg, Box 500, 405 30 Gothenburg, Sweden. E-mail: Jonas.buren@psy.gu.se

Svensk sammanfattning (Swedish summary)

Internet är idag en naturlig vardagsarena för tonåringar, och en allt större del av det sociala utbytet tonåringar emellan sker via sociala medier som Instagram, Snapchat och Kik. Med dessa förändringar har även nya sexuella beteenden uppkommit. Ett sådant beteende är *sexting*, vilket innebär att skicka eller ta emot bilder eller videoklipp med sexuellt innehåll. Sexting kan ses som ett relativt nytt sätt för tonåringar att utöva och utforska sin sexualitet. Det har dock även väckts farhågor, från framförallt media och en del forskare, att sexting kan medföra betydande risker för tonåringar, till exempel en ökad risk att bli sexuellt utnyttjad, eller att bilder eller videor sprids till andra personer än vad som var avsett.

Forskning på området av största vikt för att bättre förstå detta relativt nya fenomen bland såväl flickor som pojkar. Den här licentiatuppsatsen syftar därför till att besvara ett antal frågor gällande förekomsten av sexting, till vem man skickar och tar emot sexting ifrån, samt hur tonåringar upplever sexting. Uppsatsen har också som syfte att skapa en bild av vad för faktorer som kan hänga samman med sexting, till exempel faktorer i tonåringars omgivning samt deras riskvanor på internet. Dessutom kommer fokus att ligga på att undersöka tonåringars upplevelser av hur jämnåriga ser på sexting.

I Studie 1 deltog 1653 svenska tonåringar i högstadieåldern. Dessa deltog i en enkätundersökning som besvarades i skolmiljö. Resultaten visade att 4.4% till 16.0% av deltagarna hade skickat sext, medan 23.5% till 26.8% hade tagit emot beroende på vem de hade sextat med. Den vanligaste personen som deltagarna uppgav att de sextade med var någon som de var tillsammans med, men det var inte heller helt ovanligt att de hade sextat med helt okända personer på internet. Det var också vanligast att få sextingbilder/videoklipp skickade till sig från vänner eller jämnåriga i ens närhet. Studien visade att killar var mer benägna än tjejer att fråga om att få sextingbilder/videoklipp skickade till sig. Mer än en tredjedel av

tjejerna hade känt sig pressade att skicka sextingbilder/videoklipp, medan en tiondel av killarna hade känt sig pressade. Studien visade också att tjejer hade mer negativa erfarenheter av sexting än vad killarna hade, fast det var också tydligt att en stor andel killar också hade haft negativa erfarenheter.

I studien fann vi också att tonåringar som tenderar att ta risker på nätet var mer benägna att sexta. Detta samband var extra starkt för tjejer som sextade med främlingar. För pojkar fanns det också ett positivt samband mellan att få stöd från vänner och att sexta mer. Äldre tonåringar och de som var tidiga i sin pubertetsutveckling var mer benägna att sexta, men detta gällde dock bara om de sextade med en partner eller med vänner.

I studie 2 ombads svenska tonåringar att besvara en öppen frågeställning om vad de tror att synen på sexting är bland deras jämnåriga. Svaren på den öppna frågeställningen analyserades med en innehållsanalys. Genom den kunde flera innehållskategorier kring tonåringars syn på sexting identifieras. Som exempel uttryckte en stor andel av deltagarna att de trodde jämnåriga tyckte att sexting kunde vara okej om det utfördes med någon man var ihop med eller litade på. Från framförallt killar lyftes att sexting är okej om båda är med på att sexta. Det framkom också att sexting är könat, där synen på tjejer som sextar skiljer sig från synen på killar som sextar. Som exempel nämndes att en tjej riskerar att bli kallad för ”hora” om hon sextar, medan en kille snarare blir kallad för ”kung”. Synen bland vissa tonåringar var också att sexting inte anses lämpligt, vilket motiverades av att sextingbilder/videoklipp kan spridas eller att tonåringar är för unga för att sexta. Normerna som beskrevs inkluderade också tonåringars motiv till sexting, där flickorna framför allt beskrev en syn på att unga sextar för att söka uppmärksamhet, medan pojkarna beskrev en syn av att man sextar som ett sätt att roa sig eller få sexuell njutning.

Denna licentiatuppsats undersökte sexting bland svenska tonåringar, och fann att sexting bland tonåringar är ett komplext sexuellt beteende som omges av könade normer och kan medföra risk men också vara en källa till sexuellt utforskande. Framtida forskning bör undersöka hur olika situationer påverkar upplevelsen av sexting, till exempel om det finns skillnader i hur det upplevs att sexting med någon man är ihop med mot att sexting med en främling. Vidare är det av särskild vikt att belysa de ojämlika förutsättningar som finns mellan tjejer och killar som sexting, då sådana kan vara en av huvudorsakerna till varför tjejer riskerar att ha mer negativa erfarenheter av sexting. Samtidigt är det också viktigt att belysa att killar också har negativa erfarenheter av sexting, något som sällan nämns eller undersökts vidare. Det är också viktigt att få bättre förståelse för de normer som finns i kamratgruppen kring tonåringars sexting, då dessa kan påverka såväl individuella beteenden som upplevelser av sexting.

Acknowledgment

I would like to express my sincere thanks to **Carolina Lunde** for your guide and support as my head supervisor. Many thanks also goes to **Kristina Holmqvist Gattario** for your help and support as my secondary supervisor.

I would also like to extend my thanks to my former examiner **Philip Hwang** and to my current examiner **Jan Johansson Hanse** for your support and for your interest in my work.

Many thanks to **Ann Frisé**n for your helpful and insightful comments when reviewing my thesis. For administrative support, I would like to thank **Ann Backlund**.

Thanks also to my **friends** and **colleagues** at the Department of Psychology. A special thanks to **Kerstin Adolfsson**, **Fanny Gyberg**, **Emelie Ernberg** and **Malin Joleby** for your support, your help and for being good friends.

My roommate **Patrik Michaelsen** deserves many thanks for your good company, and thanks to **Sofia Calderon** for being a good friend at the department and good neighbor in Kungsladugård.

Thanks to my GRéY-colleagues: **Sofia Berne**, **Margareta Bohlin**, **Py Liv Eriksson**, **Johan Hagborg**, **Bo Helsing**, **Caroline Järmo**, **Johanna Kling**, **Therése Skoog**, **Ylva Svensson** och **Maria Wänqvist**.

Also, thanks to my **family** and to **Daniella Caponi Hermansson**, **Filip** and **Carmello**.

Finally yet importantly, thanks to the **adolescents** that have taken part in my studies. Their time and effort have been instrumental in realizing this project.

This resreach was supported by a grant from Swedish Research Council for Health, Working Life and Welfare.

Jonas Burén

Gothenburg, November 2018

Table of Contents

Introduction	1
Theoretical perspective on adolescent sexuality	3
The Bioecological model on human development	3
The process and the individual	4
The microsystem	5
The techno-microsystem: Digital technology and adolescent sexuality	7
The mesosystem	8
The exosystem	9
The macrosystem.....	10
Adolescents and sexting.....	11
Defining adolscent sexting.....	11
Prevalence rates of adolescent sexting	13
Adolescents' motivations for sexting	16
Risk-taking behaviors and sexting	17
Negative consequences of sexting.....	18
Aim of this thesis.....	21
Summary of studies.....	23
Study 1	24
Method	24
Results	25
Study 2.....	26
Method	27
Results	27
General discussion.....	29
Who adolescents sext with.....	29
Sexting is gendered.....	30
Sexting and risks for negative consequences.....	32
Sexting is a complex and nuanced phenomenon.....	34
Limitations	35
Future directions.....	37
Ethical considerations.....	38
Concluding remarks.....	40
References	43
Appendix.....	57

Introduction

In 2015 Alanna McArdle published an article on Broadly.com¹ in which she spoke out about her experiences of sexting 15 years earlier when she was 13 years old (McArdle, 2015). In the article, she described herself as a young person, curious about her sexuality. She revealed that she often arranged conversations via her webcam with five to six boys from class, during which she sometimes stripped for them. She described this activity as “blissful” until one of the boys told his parents. From then on, she became “pariah” among teachers, schoolmates, and parents. Her parents were angry and disappointed in her but rarely talked about what had happened. While Alanna was stripped of her diary and had her behavior surveyed for signs of sexual misconduct, the boys involved seemed to receive only “a pat on the back.” Alanna explained that she started to wonder whether her sexual enjoyment and feelings were okay. She recalled how at peace she had been with being sexual and how actively she had chosen to engage in sexting, and concluded that it was the reactions of others that negatively affected her view of her own sexuality (McArdle, 2015).

What Alanna describes in her article is her experiences of sexting. That is the creation, sharing, and forwarding of sexually suggestive, nude or nearly nude images or video clips (Lenhart, 2009) through the internet (Ringrose, Gill, Livingstone & Harvey, 2012). Initially, Alanna perceived her experiences as positive, but as those in her social environment disapproved of this activity, she began to question whether she had been right to do what she did. Although it is difficult to say how representative Alanna’s story is, it illustrates a modern phenomenon that can

¹ Broadly.com is an online news site, part of VICE Media LLC, that publishes stories focused on the experiences of women, gender non-conforming people, and LGBT individuals.

create shame, anxiety, and worry in adolescents. However, sexting may also be an activity that some adolescents want to engage in as a part of their sexual exploration (Cooper, Quayle, Jonsson & Svedin, 2016).

In this thesis, adolescent sexting will be explored by considering several aspects of a complex phenomenon that is still not fully understood. During the last ten years, sexting has gained increased attention from both the public and the scientific community. Public interest has been mainly in high-profile cases in several countries involving young people who have been victimized through sexting (Lunceford, 2011). The risks with sexting are real and should not be taken lightly, as they include grooming for molestation, child sexual exploitation, and other forms of sexual abuse conducted over the internet (Cooper et al., 2016; Jonsson & Svedin, 2017). There is, however, a risk that these concerns may overshadow other nuances of sexting and that adolescent sexting will become unnecessarily synonymous with only its most negative outcomes. This creates a need for studies that focus not only on the challenges and risks of sexting, which indeed are important to explore, but also on its more general aspects (Lee & Crofts, 2015).

During early and mid-adolescent, adolescents undergo an intense process of sexual development (Temple-Smith, Moore & Rosenthal, 2016). Adolescents are also identified as being a group that may be particularly vulnerable. This is because adolescents begin to move beyond their families, while still developing the capabilities they need for adult life (World Health Organisation, 2018). To date, most research on adolescent sexting has been conducted in the US and the UK. With a few exceptions (see e.g., Jonsson, Bladh, Priebe & Svedin, 2015; Jonsson, Cooper, Quayle, Svedin, & Hervy, 2015; Jonsson, Priebe, Bladh & Svedin, 2014), research on sexting among Swedish adolescents is scarce, and yet fewer studies have been conducted on adolescents under the age of 16. Thus, it is an important objective to increase the knowledge about sexting among young Swedish adolescents.

Theoretical perspective on adolescent sexuality

Adolescent sexual development is determined by biological, psychological, cognitive and environmental factors (Jones, da Silva & Soloski, 2011). These interact with the socio-cultural context in which cultural values, norms, institutions, and historical forces affect and interact with adolescents' sexual development, sexual behaviors and sexual expressions (Weeks, 2010). To understand adolescent sexual development and sexual behaviors such as sexting, a theoretical framework that encompasses these processes is needed (Jones, da Silva & Soloski, 2011). Therefore, for this thesis, Bronfenbrenner's (2005) *Bioecological* model on development has been chosen as the main theoretical foundation. The Bioecological model has the advantage of providing the needed comprehensive framework for adolescents' sexual development, given that biological, psychosocial factors and social environmental, are all factored in (Corcoran, 2000; Jones, da Silva & Soloski, 2011).

The Bioecological model on human development

The Bioecological model on human development (Bronfenbrenner, 2005) is an expanded model that has been derived from Bronfenbrenner's (1979) original *Ecological systems theory*. This new model came as a response to the critique that the role of the individual had been overlooked in previous work (Bronfenbrenner & Ceci, 1994). In the Bioecological, model four integrating components were included – *process*, the *person*, the *context* and *time*. These components shape adolescent development in a dynamic relationship between the individual and the social context, in which individual characteristics (biological, cognitive, emotional and behavioral) interact with the social context at different *systems*, as suggested by the original theory. These systems are: the *microsystem*, which is the social context closest to the adolescent, such as family and peers; the *mesosystem*, in which the various factors and people in the microsystem interact;

the *exosystem*, which includes the broader social context such as media; the *macrosystem*, in which cultural values and agreed practice and laws are situated (Bronfenbrenner, 1979). According to the Bioecological model, the time component consists of significant life changes, environmental events, and historical events or conditions that affect human development, also referred to as the *Chronosystem* (Bronfenbrenner, 2005).

The process and the individual

The Bioecological model emphasizes the importance of individual characteristics that are unique for the individual and interact with the social context in what Bronfenbrenner (2005) referred to as *proximal processes*. Bronfenbrenner also identified three characteristics of the individual which can affect proximal processes across the lifespan (Bronfenbrenner, 2005). These are *demand* characteristics, including age, sex or physical appearance; *resource* characteristics, including the mental or emotional resources such as intelligence and experience; and *force* characteristics, which refer to individual variations in motivations, temperament, and self-control (Bronfenbrenner & Morris, 1998). All these individual characteristics can be changed by the social context but are also capable of changing the social context (Bronfenbrenner & Morris, 1998).

Concerning adolescent sexuality, these characteristics can be understood as predisposing factors that affect adolescent sexual behaviors and development (Jones, da Silva, Soloski, 2011). For example, pubertal timing, which is affected by hormonal changes in the body, can function as an example of an individual characteristic that affect adolescent sexual behavior, as it contributed to sexual motivation and sex drive (Diamond & Savin, 2009). With puberty, secondary sex characteristics are gradually developing such as increased hair growth and mus-

cle mass for boys and increases in fat mass and breast growth for girls (Steinberg, 2011). The visible bodily changes may yield changes in how people around the adolescents react to them, which also affect their social behavior (Steinberg, 2011). Furthermore, individual differences in terms of when the onset of puberty is triggered by hormones, may yield differences in sexual behaviors and development among adolescents (Sisk & Zehr, 2005). Early puberty among boys have for instance been linked to being sexually active at younger ages (Mendle & Ferrero, 2012), and early matured girls have been found to have more sexual partners (Copeland, Shanahan, Miller, Costello, Angold & Maughan, 2010). It is, however, difficult to solely link these finds to hormonal differences among adolescents, as the individual and the social context are so heavily intertwined. This, in turn, may also provide an argument that it is redundant to consider adolescent sexuality without considering the interaction of both the individual and the social environment (Temple-Smith, Moore & Rosenthal, 2016).

The microsystem

As aforementioned, the closest system to the individual is the microsystem, which consists of the adolescent's immediate social environment, such as family and friends (Bronfenbrenner, 1979).

Even if adolescents typically shift their attention to their peer group (Sawyer et al., 2012), the family still has an important influence on adolescent sexuality (Temple-Smith, Moore & Rosenthal, 2016). Family can influence adolescents through direct communications in which issues about sex, cultural norms, attitudes, and behaviors are transmitted (Pick & Palos, 1995). Parents also influence adolescent sexuality through the indirect transmission of the parents' views about sexuality

and sexual experiences, their child-rearing styles, and their behavior to others. Because parents are major role models, they provide adolescents with leads to figure out their sexuality (Temple-Smith, Moore & Rosenthal, 2016).

Another important familial influence on adolescent sexual development is family support, including the family's level of involvement in the adolescent's life, the quality of family relationships, and the family's overall support of the adolescent as a person (Temple-Smith, Moore & Rosenthal, 2016). Support from the family may provide the adolescent with active guidance on sexual issues, but may also bolster the adolescent's self-esteem, allowing them to become more aware of their own needs, and able to express themselves and their desires in sexual situations (Davis & Friel, 2001; de Graaf, Vanwesenbeck, Woertman & Meeus, 2011). This influence has mainly been associated with sexual risk behaviors and sexual abuse, in which poorer parental support is seen as a risk factor (Buhi & Goodson, 2007). Similar results have also been found for online sexual risk behaviors, in which adolescents' in less cohesive families are more likely for online sexual risk behaviors (Baumgartner, Sumter, Peter & Valkenburg, 2012). In relation to sexting, a poor parent-adolescent relationship has also been linked to an increased likelihood of sexting (Jonsson, Bladh, Priebe & Svedin, 2015).

Peers and friends can also influence an adolescent's sexual development through direct communication about sexual issues and topics (Temple-Smith, Moore & Rosenthal, 2016) and more indirectly, through the sexual norms and attitudes conveyed by those peers and friends (Gibson & Kempf, 1990; Temple-Smith, Moore & Rosenthal, 2016).

According to Cialdini's (2004) theory of social norms, the influence of peer norms on behavior stems from two sources of peer influence: if the adolescent perceive that a specific sexual behavior is frequent among the adolescent's peers (*descriptive* norms); and if the adolescent perceive that a particular behavior is

approved of by the adolescent's peers (*injunctive norms*) (Cialdini & Goldstein, 2004). In a recent meta-analysis, the association between descriptive norms and injunctive norms with adolescent sexual activity was investigated. This study, consisting of almost 70 000 adolescents, indicated that both injunctive and descriptive norms affect adolescents' sexual behaviors. Specifically, adolescents who perceive that peers engage in specific sexual activities, and/or perceive that peers approve of those, are more likely to themselves engage in the same sexual activity (van de Bongardt, Reitz, Sandfort & Deković, 2015). Descriptive peer norms have been also found to be one of the strongest predictors for sexting, in which the perceived peer frequency of sending sexts increases the likelihood of sexting among adolescents (Van Ouytsel, Van Gool, Walrave, Ponnet & Peeters 2017; Walrave, Ponnet, Van Ouytsel, Van Gool, Heirman & Verbeek, 2015). A relationship between injunctive norms and sexting has also been found, indicating that adolescents who perceive that their peers approve of sexting are also more likely themselves to sext (Van Ouytsel et al., 2017).

The Techno-microsystem: Digital technology and adolescent sexuality. Given that adolescents today have substantial social interactions via digital technologies, such as mobile phones and social media, it has recently been suggested that a *techno-microsystem* should be incorporated into the microsystem (Johnson, 2010). The rationale behind this suggestion is that adolescents' use of digital technologies mediates the interaction between the adolescent and the social context of friends, family, and culture, which in turn has a unique effect on adolescent development (Johnson, 2010).

With sexting as an example, it is possible to imagine how the unique influence of the techno-microsystem may interact with adolescent sexual development. As sexting allow adolescents to have sexual interaction with another person without

physical contact (Cooper et al., 2016), it is possible that this will interfere or interact with other sexual activities (Johnson, 2010). For instance, sexting may delay adolescents' sexual debut with another person as the sexual curiosity may be satisfied by sexting, or sexting may be used as a way to attract or initiate intimacy with someone desired (Englander, 2012; Henderson, 2011). On the contrary, some researchers have suggested that sexting may be a "gateway" activity to other sexual behaviors, including sexual risk behaviors (Klettke, Hallford & Mellor, 2014; Temple, van den Berg, McElhany & Temple, 2012; Temple & Choi, 2014). In a recent meta-analysis, however, no causal link between sexting and other sexual behaviors was found (Kosenko Luurs & Binder, 2017).

The mesosystem

Adjacent to the microsystem is the mesosystem, which functions as the connection between the different parts of the microsystem, and allows these parts to interact with each other (Bronfenbrenner, 1979). In essence, what occurs in one factor of the microsystem affect what happens in an adjacent factor of the microsystem. For instance, the influence of family and peers on adolescent sexual behaviors are attenuated when both are included in an interacting model (Henrich, Brookmeyer, Shrier & Shahar, 2005). For example, adolescents' with high family connectedness have been found to be less likely to engage in sexual risk behaviors if they also report having stable and supportive friendships (Henrich et al., 2005). Furthermore, if parents provide support and engagement in the adolescents' life, it is less likely that peers influence adolescents to engage in negative behaviors, such as illegal substance use (Steinberg, Fletcher & Darling, 1994). These examples show the interaction of peer and familial influence in that they may attenuate each other's effect, or one of the factors may work as a restraint.

The exosystem

The exosystem consists of the adolescents larger social surrounding that is not necessarily part of the adolescents' immediate social context (Bronfenbrenner, 1979). One specific example of a factor within the exosystem is sexual education within the school system (Jones, da Silva & Soloski, 2011). For instance, it has been noted that the view of adolescent sexuality is relatively liberal in Sweden compared to other Western countries (Lottes & Alkula, 2011; Weinberg, Lottes & Shaver, 2000). Hence, sexual education focuses on promoting safe sex rather than promoting refrainment of sexual activities (Wendt, 2016). These messages provide adolescents with information on how to practice safe sex and may thus affect adolescent sexual behaviors.

An additional major source of influence in the exosystem is mass media, which adolescents are primary consumers of (Chia, 2006). Some researchers have even called media the “superpeer” in its influence on adolescent sexual behaviors (Strasburger, Wilson & Jordan, 2009). The reason for why mass media has received this epithet is the strong messages mass media convey about sexuality, in which sexuality is often portrayed as a normative and risk-free behavior for adolescents (Strasburger, Wilson & Jordan, 2009). For instance, in television shows that are intended for an adolescent audience, sex is more frequently portrayed than in adult shows, and seldom refers to sexual health issues such as the use of contraceptives, or safe sex (Kunkel, Eyal, Finnerty, Biely & Donnerstein, 2005).

Mass media also convey beliefs around female and men sexual behavior (Temple-Smith et al., 2016). An example of this mass media influence is the sexual messages provided by the porn industry, which about 58% of boys, and 17% of girls, aged 13 to 16 years, in Sweden take part of (Swedish Media Council, 2017). Here, stereotypical gendered female and male sexual behavior are exaggerated and often provide a picture that women's sexuality is subordinate male's sexuality, and

that the male is the active agent and initiator of interpersonal sex (Crawford & Popp, 2003). Indeed, these kinds of messages seem to have a direct influence on adolescents' sexual behaviors. Brown and L'Engle (2009) found that early adolescents that have consumed porn have a more stereotypical view of the genders, and were stronger in their belief that men are always ready and willing for sex (Brown & L'Engle, 2009). It should, however, be mentioned that the causal link here is not clear as it is possible that also adolescents' that already hold stereotypical views of gender, are the ones that are most likely to consume porn.

The Macrosystem

The macrosystem contains the cultural values, agreed practices, and laws of society (Bronfenbrenner, 1979). Cultural values can influence adolescent sexual development by providing attitudes toward, and norms of how adolescent sexuality should be viewed (Temple-Smith, Rosenthal & Moore, 2016). These are however changeable. For instance, in the latter part of the 1900s, adolescent sexuality was solely considered being part of a romantic relationship, while since the 1990s, and especially in the 2000s, sex outside romantic relationships and with several different sexual partners has become more accepted, although the norm of solely having sex in a romantic relationship is still common (Hwang, Frisé & Nilsson, 2018).

In Western culture, an enduring norm of sexuality has been the unfair and contradictory *sexual double standards* of different sexual norms for boys versus girls (Crawford & Popp, 2003). These norms stipulate that boys' sexual behaviors are generally more accepted and can even be socially rewarded, while girls' engaging in sexual behaviors are stigmatized and shamed (Crawford & Popp, 2003). Added to this, girls are expected to be sexually inviting to boys and risk being called a "prude" for not engaging in sexual behaviors (Lippman & Campbell, 2014). Sexual double standards are often maintained by family, peers, and friends and by

society as a whole (Martel, Hawk & Hatfield, 2004). If, for instance, a girl breaks the norm of being sexually restrictive, she may face sanctions such as teasing, shaming, blaming, and monitoring of future sexual behaviors (Ringrose, Harvey, Gill & Livingstone, 2013). This double standard was, for instance, illustrated by Alanna McArdle, who was stigmatized at her school while the boys involved were praised (McArdle, 2015). It should be noted that most adolescents do not subscribe to these standards and disapprove of them when asked directly (Allison & Risman, 2013). But recent studies have shown that they still are maintained among adolescents, especially if a sexual activity is performed outside of a romantic relationship (Sprecher, Treger & Sakuluk, 2013; Kraeger, Staff, Gauthier, Lefkowitz & Feinberg, 2016).

Adolescents and sexting

Since sexting reached the attention of professionals and scholars, several scientific studies have been conducted to provide a better understanding of the phenomenon. A simple literature search on the PsycInfo database with the search words “sexting” and “adolescent/s” or “young people” yields roughly 141 scholarly articles spanning from 2011 to 2018. This brief literature search shows that adolescent sexting is a relatively recent but burgeoning area of research. In the next sections, the central findings of this research are summarized to provide an overview of where the sexting literature stands today, but also to point out areas and topics in need of further research.

Defining adolescent sexting

As mentioned before, sexting is defined as the creating, sharing, and forwarding sexually suggestive nude or nearly nude images or video clips (Lenhart, 2009)

through the internet (Ringrose et al., 2012). When the word sexting was first used, it referred to the practice of sending short messages with sexually suggestive messages via SMS or instant message services such as MSN-messenger (Crofts, Lee, McGovern & Milivojevic, 2015). As social communication via the internet has become more visual and image-based, sexting has gotten a broader meaning not only including text messaging, but this has not been consistent across studies (Drouin, Vogel, Surbery & Stills, 2013). In some studies, sexting has been strictly defined as only including the sending or forwarding self-produced texts or images of a sexual nature via internet, and in other studies, broader definitions that include video and webcam sex have been used (Madigan, Rash, Van Ouytsel & Temple, 2018; Barrense-Dias et al., 2017; Drouin et al., 2013; Klettke, Halford & Mellor, 2014). As will be evident later in this thesis, the use of different definitions of sexting may have provided some confusion in the assessment of prevalence rates of adolescent sexting (Klettke, Halford & Mellor, 2014).

Another issue with the term sexting is that adolescents themselves seldomly use this term to describe the activity (Crofts, McGovern & Milivojevic, 2015). Instead, adolescents use words such as “exchanging pictures,” “taking sexy selfies,” or in some cases “receiving or sending a tit/dick pic” (Albury, Crawford, Byron, & Mathews, 2013, p. 8; Lee, Crofts, Salter, Milivojevic, & McGovern, 2013). In a recent focus group study (unreported data, not included in this thesis), Swedish adolescents referred to sexting as sending “nudes” or “nude-images” or “nude-videos.” Thus, there may be a discrepancy between how scholars refer to the phenomenon to how adolescents refer to it, meaning that adolescents taking part in studies may not share the same understanding of sexting that researchers do.

Some researchers also use other terms that are more descriptive of what they have studied but are similar to sexting. For instance: “voluntary sexual exposure

online,” “adolescents’ sexual contact [...] through mobile phone use” or “sexual messages on the internet” (Jonsson et al., 2014; Livingstone & Görzig, 2014; Vanden Abeele, Roe & Eggermont, 2012). As sexting has become the most used term among scholars, using other terms may, however, risk this important research to be overlooked.

For this thesis, the term sexting according to Lenhart’s (2009) and Ringrose and colleagues (2012) definition is used for brevity and because the term is also commonly understood by most scholars in the field, and it is a broad term that captures almost all facets of the phenomenon.

Prevalence rates of adolescent sexting

Prevalence rates of adolescent sexting tend to differ across studies (Barrense-Dias, Berchtold, Suris, & Akre, 2017; Madigan, Ly, Rash, Van Ouytsel & Temple, 2018). Some studies, for example, have indicated very low prevalence rates of sending sexts (2.5%) (Mitchell, Finkelhor, Jones & Wolak, 2012), whereas other studies have indicated considerably higher frequencies (e.g., 27%) (Temple, Le, van den Berg, Ling, Paul & Temple, 2014). This could be due to the above-mentioned variations with the definition of sexting. But the difference may also be due to different sample composition, such as country difference, gender proportions, or socioeconomic differences (Barrense-Dias et al., 2017). Another reason for differences in prevalence rates may be the use of different methodology between studies (Barrense-Dias et al., 2017). There have also been age differences in the samples between studies. For example, studies with older adolescents tend to have higher prevalence rates (e.g., Van Ouytsel, Van Gool, Ponnet & Walrave, 2014), compared to studies with younger adolescents (e.g., Livingstone & Görzig, 2014). Some studies also differ in the included age span of the adolescents which may

affect mean prevalence rates (e.g., Mitchell et al., 2012; Ringrose, Harvey, Gill & Livingstone, 2013).

In an effort to synthesize these disparate results, a recent meta-analysis was conducted. This study included 39 studies with a total of 110 380 adolescents from different countries (Madigan et al., 2018), and found that the average prevalence rates were 14.8% for sending sexts and 29.4% for receiving sexts (Madigan et al., 2018). The impressive scope of the study provides an indication of how frequent sending and receiving sexts may be among adolescents, but as these figures are based on studies with varying definitions of sexting, it is still prudent to view these figures with caution. In addition, it is likely that prevalence rates between countries are different (Baumgartner, Sumter, Peter, Valkenburg & Livingstone, 2014). Indeed, in a Swedish study of 18-year-old adolescents, higher prevalence rates were found, with around 20% having sent sexts (Jonsson et al., 2014). This higher rate of sexting among Swedish adolescents compared to Madigan and colleagues (2018) findings can possibly be explained by the higher mean age of the participants. Interestingly, in a comparative study between European countries Baumgartner and colleagues (2014) found Sweden to have the highest prevalence rates of sexting among adolescents, but that these rates were lower (11.5%) than Madigan and colleagues (2018) mean (14.8%).

Studies agree that the frequency of sexting tend to increase as adolescents get older (Baumgartner, Sumter, Peter, Valkenburg & Livingstone, 2014; Campbell & Park, 2014; Dake et al., 2012; Gámez-Guadix, de Santisteban & Resett, 2017; Lenhart, 2009; Mitchell et al., 2012; Rice et al., 2012; Wood et al., 2015). For young adolescents aged 12 to 14 years, sexting is considerably rarer than in older adolescents aged 15 or older (Kopecký, 2012). This is not surprising, given that the increase in sexting runs parallel with puberty and the increase in sexual exploration and overall sexual activity at these ages (Temple-Smith, Moore & Rosenthal,

2016). For instance, as adolescents move from early adolescence into middle and late adolescence, the likelihood of them having a romantic partner increases (Diamond & Savin-Williams, 2009). Also not surprisingly, romantic partners have been identified as being the most common sexting partners (Cooper et al., 2016).

Studies on prevalence rates by gender have had mixed results. Most studies show that there are no differences between boys' and girls' likelihoods of receiving and sending sexts (Campbell & Park, 2014; Dake, Price, Maziarz & Ward, 2012; Lenhart, 2009; Rice et al., 2012; Temple et al., 2012; Vanden Abeele, Campbell, Eggermont, & Roe, 2014). However, some studies show that boys are more likely to send and receive sexts (Beyens & Eggermont, 2014; Gámez-Gaudix et al., 2017), while others show that girls are more likely to send and receive (Mitchell et al., 2012; Reyns, Burek, Henson & Fischer, 2013). In the 2018 meta-analysis, however, Madigan and colleagues found that gender did not moderate the prevalence of sexting, which leads to the conclusion that no meaningful differences in prevalence rates seem to exist between boys and girls. In Sweden however, Jonsson and colleagues' (2014) study found some gender differences in prevalence rates among boys born outside Sweden, girls born in Sweden, girls that lived with both parents, and girls living in families with some or severe financial problems. These groups were slightly more likely to have sexted (Jonsson et al., 2014).

A question that remains is *who* adolescents sext with and *how frequently*. There are indications that sexting usually occurs between romantic partners (Cooper et al., 2016; Lee, Crofts, McGovern & Milivojevic, 2015; Lenhart, 2009), but it also seems that adolescents may sext with people they have different relationships with, such as people just met, or someone that the adolescent has a romantic relationship with (Lee et al., 2015). Not knowing with whom adolescents sext and how frequently may be a significant lack in the literature. For instance, Lee and colleagues (2015) found that adolescents who sext only with a romantic partner send sexts to

fewer people than adolescents who are not in a relationship (Lee et al., 2015). Thus, this study indicates that considering who adolescents' sext with can provide more detailed information on how sexting experiences may be different.

Adolescents' motivations for sexting

Another object of study is adolescents' motivations for sexting. This topic has predominantly been investigated via qualitative approaches (Cooper et al., 2016).

In interview and focus group studies, participants provided several reasons why they sexted, such as it is a "fun way to flirt" and that it could be used to attract someone they were interested in (Englander, 2012; Henderson, 2011; Jonsson et al., 2015; Lenhart, 2009). Adolescents also report that sexting can be a constructive part of being in and maintaining a romantic relationship (Albury & Crawford, 2012; Jonsson et al., 2015). Some adolescents maintain that sexting also allows for "safe" sexual exploration and interactions with others in contrast to offline interpersonal sexual interactions (Bond, 2011; Dir, Cyders & Coskunpinar, 2013; Lenhart, 2009). Some girls report that they send sexts to gain popularity among boys, or to seek affirmation that they are "looking good" (Jonsson et al., 2015; Lippman & Campbell, 2014).

Another identified motivation for adolescents' sexts is the feeling of pressure from others, both direct and indirect. This pressure usually comes from a romantic partner or a friend, and it is more common for girls than for boys to feel pressured (Walrave, Heiman & Hallam, 2013). The pressure can take different forms, but one of the most common was the threat of losing a romantic relationship (Lippman & Campbell, 2014).

These motivations stem from both positive and negative aspects of sexting, which undoubtedly affect how adolescents perceive sexting. For instance, if sexting is engaged in within a romantic relationship, it is possible that it is viewed

more positively by adolescents. In contrast, if a sexting situation involves pressure, it is likely that adolescents view it as negative. Understanding how adolescents perceive others' motivation for sexting may thus provide a clue of when sexting may be viewed as an acceptable activity and when it is not. Furthermore, the few numbers of qualitative studies on adolescent sexting provide an argument for further studies with this approach, as qualitative material allows for a more in-depth understanding of sexting, for instance, adolescents' views of the phenomenon.

Risk-taking behaviors and sexting

The sexting literature has also shown that some adolescents may be more likely to sext, especially adolescents that are more likely to take risks. For instance, non-sexual risk-taking behaviors such as alcohol and drug use have been correlated with sexting (Temple et al., 2014; Ybarra & Mitchell, 2014). In addition, risky online behavior, such as pretending to be another person or sending personal information to someone never met offline, have also been linked to an increased likelihood of sexting (Livingstone & Görzig, 2014; Jonsson et al., 2015). Studies among adolescents on sensation seeking (the tendency to seek novel and intense experiences and feelings) (Zuckerman, 2008) have found similar results, with increased sensation seeking related to an increased likelihood to engage in sexting (Baumgartner et al., 2014; Van Ouytsel et al., 2014).

Thus, online risk-taking seems to be an important consideration in understanding why some adolescents sext in certain circumstances. Considering also that sexting situations may vary in risk, depending on factors such as who the adolescent is sexting with, it is of interest to explore the role of online risk-taking.

Negative consequences of sexting

Several researchers within the sexting field call for a normalcy discourse of adolescent sexting, meaning that sexting should not be defined or researched based on the view that sexting is solely associated with problematic sexual activities and risks, the so-called deviance discourse (Cooper et al., 2016; Kosenko, Luurs & Binder, 2017). However, it is important to keep in mind and understand the possible negative consequences that can accompany sexting. Investigation of risks and negative consequences of sexting have also received the most attention in the adolescent sexting literature to date (Kosenko, Luurs & Binder, 2017).

For adolescents themselves, the risk of having sexting material spread to unintended others is a major concern (Albury & Crawford, 2013; Lenhart, 2009). For many adolescents who sext, this is a source of great anxiety and worry, especially for girls, who may be shamed if their sexts are sent to others (Lenhart, 2009). Sexts can also be a source of bullying and cyberbullying (Cooper et al., 2016). Indeed, for some adolescents, sexting has been linked to online harassment, with boys being especially at risk of bullying if their sexts are shared to others without their consent (Jonsson et al., 2014). In some cases, non-consensually spread sexts in the US have been linked to blackmail, abuse, coercion to continue sexting (Wolak & Finkelhor, 2011), and suicide (Siegle, 2010).

It should, however, be noted that these consequences of non-consensually spread sexts are not the rule for sexting, and are often less common than perceived by adolescents (Dir & Cyders, 2015). It has been suggested that certain circumstances and some groups of adolescents are more at risk than others (Kerstes & Stol, 2014; Mitchell, 2010; Sorbring, Skoog & Bohlin, 2014). Kerstes and Stol (2014), for instance, found that adolescents were more bothered by their sexting with someone unknown to them or met only online. It has also been suggested that some adolescents may be more vulnerable online, for example, those who have

been subjected to physical and sexual abuse, who are depressed, and who report low family support (Michell, 2010).

These studies show that sexting is accompanied by a number of risks for negative consequences and that certain circumstances, such as the person to whom the sexts are sent, may increase these. However, except for Kerstes and Stol's 2014 study, few other studies have investigated adolescents' experiences of sexting with unknown others. Given the potential of increased risks for adolescents who sext with unknown others, further study of this issue is warranted.

Aim of this thesis

The overall aim of this thesis was to examine Swedish adolescents' experiences with sexting. More specifically, the thesis sought to examine girls' and boys' experiences of both sending and receiving sexts, as well as different individual and psychosocial factors associated with these experiences. The aim was also to explore one contextual influence for adolescents' sexting experiences, namely perceived peer norms of sexting. Two studies were conducted in order to meet these overarching aims.

Summary of studies

Study 1 and 2 were part of an ongoing research project conducted at the University of Gothenburg. The research project aims to investigate and understand sexting among Swedish adolescents. It includes both quantitative and qualitative methods. Ten primary schools, with a total of 2289 enrolled students (grades 7 to 9), took part in the project. Schools were selected in order to represent different areas in terms of socio-economic status, educational level, and immigrant background. These indicators were obtained from statistics provided by the Swedish National Agency for Education's statistical tool SALSA (Swedish National Agency for Education, 2018). In this thesis, data collected during the first wave of the project (W1, fall–spring 2016/17) was used.

Of the 2289 enrolled students, 1653 (72.2%) adolescents participated at W1 (831 boys, 822 girls). Mean age was 14.20 years ($SD = 0.92$), with ages ranging from 12 to 16. The most common reasons for why students did not take part in the study were a failure to obtain parental consent, that students were not attending class at the day of data collection, or that students choose not to participate.

The online questionnaire used for Study 1 and 2 was answered in a classroom setting, using laptops or mobile phones. At least one researcher was present during the data collection. S/he was available to answer questions and to ensure that each participant answered the questionnaire privately. Given the sensitive nature of some of the questions, boys and girls answered the questionnaire in different classrooms.

Before the participants' answered the questionnaire, the following definition of sexting was stated verbally: "Sexting is the sending and/or receiving of images or video clips that contain nudity or are sexual in nature, such as sending nude or

semi-nude pictures/video clips, showing a body part or doing a sexual act via webcam.”. This definition was then repeated in written form in the questionnaire.

Study 1

The main aim of Study 1 was to further the scientific knowledge of adolescents’ sexting experiences, focusing on the prevalence of receiving and sending sexts, who sexts are sent to and received from, and how adolescents perceive sexting (e.g., whether they feel pressured to sext and whether sexting was experienced as positive or negative). Potential relationships between sexting and gender, age, pubertal timing, support from family and friends, and online risk-taking were all evaluated.

Method

In Study 1, measures of age, gender, pubertal development, and perceived support from family and friends were used. These measures were obtained from the Public Health Agency of Sweden’s 2017 public health report questionnaire for children and adolescents. Pubertal development was measured by asking participants how they perceived their development in comparison with peers (e.g., early, average, or late). Participants’ tendencies toward online risk-taking were measured using a six-item set of questions previously used by Ybarra, Mitchell, Finkelhor & Wolak (2007). For the sexting questions, the participants were asked how often they had received or sent sexts and from and to whom (romantic partner, friends, online friend, stranger). They were also asked if their experiences with sexting were positive or negative, if they had been asked to sext, and if they had been pressured to sext.

Results

The results of Study 1 showed that sending sexts was more common among older adolescents. Chi-square tests showed a general similarity between boys and girls in sending and receiving sexts to and from romantic partners, friends/peers, online friends, and strangers, with one difference. Girls were more likely to receive sexts from strangers than boys were, and they were most likely to receive sexts from strangers than from anyone else. Boys were most likely to receive sexts from friends and peers and were more likely to (15% of boys) send sexts to a romantic partner.

Boys were more likely than girls to ask for sexts from others, while girls were more likely than boys to be asked. Over a third of the girls and a tenth of boys had felt pressured to send sexts. Girls also reported more negative experiences of sexting than boys did. However, it should be noted that a substantial share of the boys who had sent sexts also reported having had a negative experience.

Logistic regression showed that adolescents that were more likely to take risks online were also more likely to sext. This relationship between sexting and online risk-taking seemed to be strongest for those who had sent sexts to strangers. Additionally, boys who felt that they had greater support from their friends were more likely to sext. Both age and early pubertal development predicted an increased likelihood for sexting. Interestingly, this relationship was found only in relation to sending sexts to a romantic partner or friends for boys, and only in sending texts to a romantic partner for girls.

Study 1 showed that sexting rates among young adolescents depend upon who the sext is received from or sent to. Significant gender differences were identified in sexting experiences, which may be due to the gendered nature of sexting and more broadly to social norms about boys and girls sexuality. The study also showed that online risk-taking, the support of family and friends, age, and pubertal

timing are all related to sending sexts, and the strength of the associations vary depending on the gender of the sender and the recipient of the sexts.

Study 2

Study 2 was used to understand better the expectations and social norms that may operate among adolescents and their peers. Emphasis was put on examining adolescents' perception of the peer norms that may regulate adolescents' sexting behaviors. More specifically, what adolescents believe that peers think about sexting, and if there were any differences between girls and boys in terms of these beliefs.

Method

In Study 2, answers to an open-ended question used in the questionnaire at W1 were analyzed. The question was designed to capture adolescents' beliefs of what peers think about sexting, reading: "What do people of your own age think of sexting?" To stimulate the participants written disclosure, the following probe questions were used: "Do you think people of your own age think sexting is okay?"; "Is it more or less okay if a girl versus a boy send sexts?"; "Is it more or less okay to sext depending on who people are sexting with?".

To explore the content of participants' answers, a conventional content analysis (Hsieh & Shannon, 2005) was conducted. The content of each statement was coded for content, and each code was organized in to clusters based on conceptual relationships. These were named and combined in to main- and subcategories.

Results

The content analysis resulted in five main categories: Sexting is okay under certain circumstances; Sexting is gendered; Sexting is not appropriate; Sexting is a means to get attention; Sexting is a means of pleasure or enjoyment.

The first category “Sexting is okay under certain circumstances” indicated that participants believed that peers approve of sexting if it, for instance, is performed within a relationship or with someone trusted. The participants, more likely boys, also believed that peers approve of sexting if there is a mutual agreement between those that sext with each other. The second category “Sexting is gendered” included beliefs that peers’ views about sexting is gendered. More specifically, it was emphasized that girls are unfairly treated by others for sexting while boys are not, that girls were more exposed to the risks of sexting, and that boys are enjoying sexting more. The third category, “Sexting is not appropriate,” showed that several participants did not believe that peers approve of sexting at all. Explanations for this standpoint included that adolescents are too young to sext or that the risks associated with sexts being spread are too great. In the fourth category, “Sexting is a means to get attention,” the participants believed that peers perceived sexting is used as a way to get attention from others. Girls were more likely to make this point. Lastly, in the fifth category, “Sexting is a means for pleasure/enjoyment,” some participants believed that peers thought that sexting was pleasurable and enjoyable. This last category was more often mentioned by boys.

General discussion

The overall aim of this thesis was to examine Swedish adolescents' experiences with sexting. The two studies included in this thesis was used to explore adolescents' sexting from two different perspectives. Study 1 examined adolescents' sexting behaviors, experiences and potential relationships between sexting and different individual and psychosocial factors. Study 2 explored peer norms of sexting by examining what adolescents believe their peers think about sexting, and how these beliefs may differ between boys and girls. The main findings from these two studies are discussed below and are followed by a discussion of possible limitations of these studies, future directions for research, and ethical considerations.

Who adolescents sext with

Study 1 provided insight into the circumstances under which sexting takes place and how it may be experienced by adolescents. It was evident that adolescents in Sweden mainly sext within a romantic relationship (girls and boys) or with friends and peers (mostly boys), which mirror findings from previous studies (Cooper et al., 2016; Lenhart, 2009). Also, it was not uncommon for adolescents to sext with online friends or strangers. Over 30% girls and over 20% of boys had received sexts from strangers, and about 8% of girls and boys reported that they had sexted with a stranger.

These latter findings deserve further consideration as sexting with a stranger is a potential risk factor for negative consequences (Gómez-Gaudix, Almendros, Barrojo & Calvete, 2015; Kerstes & Stol, 2014). As mentioned, adolescents have reported being bothered by sexting with strangers (Kerstes & Stol, 2014), and in one study, sexting with people met only online was associated with increased likelihood of online sexual victimization, such as being coerced into more sexting, and

also with having sex offline (Gómez-Gaudix et al., 2015). Indeed, in Study 2, adolescents' themselves emphasized the importance of the sexting partner being a romantic partner and/or someone trusted.

Given that Study 1 shows that some adolescents' sext with strangers, further studies should investigate under what circumstances they sext with strangers, what those experiences are like, and whether some adolescents are more vulnerable than others are. Also of interest for further study is a more detailed investigation of how sexting is experienced in different relationships. For instance, previous research has shown gender differences in experiences when sexting with a romantic partner, with girls being more likely to receive pressure from their partner (Walrave, Heiman & Hallam, 2014; Lippman & Campbell, 2014).

Sexting is gendered

Study 1 showed that there are some important differences between girls' and boys' experiences of sexting. Boys were more likely to ask for sexts, while girls were much more likely to be asked for. Girls also reported experiencing more pressure to sext and had overall more negative experience from sexting. In Study 2, girls were perceived as being more stigmatized for sexting and more exposed to possible risks with sexting. These gender differences are similar to what has been found in other countries (Lenhart, 2009; Lippman & Campbell, 2014; Ringrose et al., 2012). Thus, the present finds indicate that sexting is a gendered phenomenon that may result in different experiences of sexting for girls and boys. Importantly, however, it should also be noted that a substantial share of the boys who had engaged in sexting also reported having negative experiences. It should also be mentioned concerning the findings in Study 1 that although girls were more likely to have been pressured to sext, it was evident that boys too are pressured to sext, and many

boys reported having negative experiences. This has, however, not been investigated before, which provide ample argument for further studies on boys' negative experiences.

It also seems adolescents themselves are mindful of the gendered nature of sexting. This was found in Study 2, in which topics were found that were indicative of sexual double standards that boys and girls face in Western societies (Crawford & Popp, 2003). For example, participants underscored the belief that girls who sexted risked being called derogatory terms while boys received praise instead. This and similar results from similar qualitative studies (Lenhart, 2009; Lippman & Campbell, 2014; Ringrose et al., 2013), show how prominent these sexual double standards are. Indeed, in Study 2 further evidence was found among adolescents who perceived that sexting might be seen by adolescents as a means, mainly for girls, to get attention and gain social approval from others. Speculatively, this may be similar to shaming girls for sexting, implying that girls do not sext for their own pleasure, but do it to be popular or to receive positive comments (Lippman & Campbell, 2014).

Adolescents' perception of unfair gender standards in sexting, found in Study 2, may also indirectly indicate why girls have more negative views of sexting compared to boys, as found in previous research (Cox Communications 2009; Gewirtz-Meydan, Mitchell & Rothman, 2018; Rodríguez-Castro, Alonso-Ruido, González-Fernández, Lameiras-Fernández, & Carrera-Fernández, 2017). Speculatively, this may be because girls perceive that they are unfairly treated for sexting compared to boys, and the perceived unfairness will be a more salient issue for them and thus negatively affect how girls view sexting. It is also possible that the cultural influence of sexual double standards requisite girls to be more skeptical to sexual behaviors than boys (Crawford & Popp, 2003), which may allow boys more freedom to discuss the positive sides of sexting.

The present study and findings from previous studies (Lenhart, 2009; Lippman & Campbell, 2014; Ringrose et al., 2013), indicate that sexting is a highly gendered phenomenon fits in a broader societal context in which girls' and boys' sexuality are treated differently (Crawford & Popp, 2003). In modern Western society, gendered sexual stereotypes are commonly conveyed by media, friends, and parents (Kim, Sorsoli, Collins, Zylbergold, Schooler & Tolman, 2007), with the message that girls are passive in their sexuality, while boys are seen as sexually active with almost insatiable sexual needs (Petersen & Hyde, 2010). These stereotypes and sexual double standards in modern Western society may also result in that girls that engage in sexual activities are more likely to receive sanctions from people around them (Crawford & Popp, 2003). In Studies 1 and 2, it was evident that sexting was to some degree experienced and viewed differently for boys and girls, which may mirror these gendered sexual stereotypes and double standards in Western society. Thus, consideration of the inequality between boys and girls when investigating sexting is of the essence to understand differences in boys' and girls' experiences and motivations for sexting.

It is, however, important to keep in mind that although there were many differences between girls and boys in Study 1 and 2, there were also several similarities across genders. Similarities include similar prevalence rates of sexting, and that both boys and girls perceived at similar rates that adolescents' may view sexting as being okay in a relationship. With this in mind, it should not be assumed that girls and boys would engage in sexting for different reasons, or having different experiences across situations based on their gender alone.

Sexting and risks for negative consequences

In Study 2, a large proportion of adolescents mentioned several topics why their peers would consider sexting as an inappropriate sexual activity, with risks for

adverse consequences being the main concern. One of the most commonly mentioned risks, that also set sexting aside from many other sexual activities (Van Ouytsel, Walrave & Van Gool, 2014), was that sexts could be spread to others. This risk has been confirmed in previous studies, which have also shown that spreading of sexts may be a way for some adolescents to gain peer approval, but others have also reported that sexts are spread out of revenge, or simply for fun (Albury & Crawford, 2012; Bond, 2011; Lippman & Campbell, 2014). It is, however, not fully known how common it is that adolescents' sexts are spread to others, but in one early study on adolescent sexting, 17% reported that they had forwarded sexts to others (Associated Press and MTV, 2009). Study 2 thus indicates that adolescents are aware of this risk, and it may explain why some adolescents have negative experiences of sexting. However, all adolescents may not be fully aware of the risks of sexting.

Indeed, in Study 1 the strongest predictor for sexting was online risk-taking behaviors. For girls, the effect of online risk-taking was especially strong in sending sexts to strangers. This means that adolescents that already engage in risky activities online may be more likely to engage in sexting, which confirms results from similar studies (Jonsson et al., 2015; Livingstone & Görzig, 2014). With the assumption that sending sext to strangers is risky, there may be a subgroup of adolescents that frequently take risks online and are thus more exposed. These adolescents may perceive fewer risks, and instead perceive more benefits compared to adolescents that are more mindful of possible risks with sexting (Goldberg, Halpern-Felsher & Milstein, 2002).

Thus, what Study 1 and 2 suggest is that most adolescents are aware of the risks for adverse consequences of sexting, but that some adolescents are more likely to take risks when sexting. The question that remains is how sexting is perceived by

adolescents that have an inclination for risks online, and how they may perceive sexting different from less risk-inclined adolescents.

Sexting is a complex and nuanced phenomenon

With the findings from Studies 1 and 2, it may be safe to conclude that sexting is a complex phenomenon that is affected by several different factors. Arguably, the complexities of sexting fit into the framework of Bronfenbrenner's (2005) Bioecological model. For instance, in Study 1 familial influence, in the form of family support, was found to predict a decreased likelihood of sexting in some circumstances. Peer influence on sexting was also found for boys, in which boys that perceived higher peer support also were more likely to sext. Study 2 indicated what Western societal cultural norms, such as sexual stereotypes and sexual double standards, influenced peer norms of sexting and potentially individual sexting behaviors. According to the Bioecological model, these influences (which can be situated in the micro- and the macrosystem) are important for adolescent sexual development (Corcoran, 2000; Jones, da Silva & Soloski, 2011). This provides an argument that several factors need to be considered for a complete understanding of sexting. Considering also the earlier mentioned suggestion that digital technology is an integral part of most adolescents' everyday life (Johnson, 2010), it should be of importance to understand how adolescents use digital technology in relation to sexting. For instance, adolescents that are more frequent users of social media may be more likely to receive messages from peers and media that may shape their beliefs about adolescent sexual behaviors, and thus sexting.

Furthermore, Study 1 and 2 indicate that sexting should be considered a nuanced sexual activity that not only entails risks and adverse consequences, but also that may also be part of adolescent sexual exploration. Thus, the negative public

discourse around sexting may not be fully accurate and may not reflect adolescents' experiences and perceptions. Instead, it is important to have a nuanced view of sexting, with consideration of more than the risks and possible negative consequences (Lee & Crofts, 2015). This would be beneficial as it may allow adolescents to be part of the public conversation and more freely be able to share their views, perceptions, and experiences of sexting without fear of being sanctioned (McGovern, Crofts, Lee & Milivojevic, 2016). Having a nuanced view will also contribute to establishing a normalcy discourse around sexting, in which sexting is seen as a sexual behavior among others (Kosenko, Luurs & Binder, 2017). A normalcy discourse may also be more constructive for providing sexual education about sexting, as it may guide adolescents to consider what circumstances make sexting safe or unsafe (Döring, 2014).

Limitations

There are some limitations of the research project and the two studies considered here that need to be addressed. The first limitation is that the sample may not be representative of adolescents throughout Sweden. One issue is that participating schools in the research were not randomly selected, but a convenience sample of schools was recruited. This was addressed by trying to recruit schools comprising students with various social backgrounds. A second limitation is that by seeking active consent from parents, some otherwise willing adolescents may have been excluded from answering the questionnaire. This, like the convenience sample, may have affected the representativeness of the sample, as children of non-consenting parents may have shared some systematic characteristics. Very few parents (a total of 64), however, withheld their consent for their children's participation, which means that this is likely a minor issue. It should also be mentioned that because the studies are based on self-reported data, the reported prevalence rates

of sexting may have been affected due to social desirability bias, unwillingness to answer sensitive questions truthfully, or misunderstanding of the questions.

To achieve high validity and reliability in the studies, the definition of sexting provided to the participants was based on previous research (see, e.g., Lenhart, 2009; Ringrose et al., 2012). However, very few Swedish adolescents use the word “sexting,” which may create misunderstandings during data collection, even though many Swedish adolescents are not unfamiliar with the term. To minimize this risk, sexting was carefully defined and explained to participants, both orally and in writing.

A limitation of Study 2 was the wording of the open-ended question. This asked about others’ views of sexting, but half of the participants also added their own view. In the analysis, we chose not to separate between these as they were considered to account for social norms among adolescents and their peers. Thus, the findings should be considered a mixture of the participants’ own views and peers. Furthermore, many of the categories identified in Study 2 followed what was asked in the follow-up questions to the open-ended question. This may have meant that the participants answered these questions rather than freely describing the most important beliefs they thought peers had about sexting. This was deemed an acceptable limitation as the participants would potentially have had difficulties answering the open-ended question without any concrete examples. It is also possible that the use of an open-ended question may have limited the richness of the participants’ responses.

Future directions

A consistent theme in this thesis is considerations of how adolescents' social context seems to affect adolescent sexting. Thus, consideration of how sexting is situated in the adolescent's social context is one important future direction of the sexting research. There are several concrete ways to do this:

First, as the sexual norms within peer groups may differ (van de Bongardt et al., 2015), it is possible to think that peer groups also differ in how they view sexting. In some peer groups, it is possible that sexting is viewed as a less troublesome activity with few risks, while other peer groups are more skeptical toward sexting. Hence, investigating different views on sexting within different peer groups may provide answers to why some adolescents choose to ignore certain risks with sexting; why some sext more than others; and why some engage in more negative forms of sexting such as sending unwanted "dick-pics" to others, or pressuring others for sext (Salter, 2016).

Family influence also deserves further attention as several aspects of family influence could provide a more detailed picture of adolescent sexting (Vanwesenbeeck et al., 2018). As mentioned before, family members may influence adolescent sexual behavior through direct communication about sex, through rearing styles, family structure, and parental support (Vanwesenbeeck et al., 2018). Further study on each of these will provide added information on how an important part of adolescents' immediate social context (family) may influence adolescent sexting. This information may also provide parents with tools and knowledge on how they can address sexting, especially if sexting becomes problematic for their child such as unwanted spreading of sexts and cyberbullying (Vanwesenbeeck et al., 2018).

The influence of media should also be considered. With sexting being a visual sexual activity, media may have an especially important role for adolescent sexting. For instance, it is possible that for a sext to be “valued high” by the receiver or by others it needs to look “sexy” (Ringrose et al., 2013). Given that adolescents have virtually no other source of information on how sexts can be presented except for other sexts they receive or see others receive, adolescents may be influenced by pornography, YouTube clips, or fashion magazines. The appearance norms and ideals from these sources, communicating that human bodies are primarily objects of others’ desires, may also be internalized by adolescents (Grogan, 2016), which turn may shape adolescents’ sexting behaviors. This provides an argument to further research on the influence of media (e.g., gender stereotypes, appearance norms) on adolescent sexting.

These suggestions for future research are all based on the idea that the adolescent is influenced continuously by an interacting social context. For future studies of sexting, these interactions should also be considered because it will provide a more detailed picture of how the social context may influence adolescent sexting, and the experiences adolescents have of sexting. Thus, future research could benefit from having an interactionist approach, meaning that no instance of sexting is isolated from the interacting social context. For instance, by fitting family influence, peer influence, and cultural influence with each other will provide a more complex understanding of why some adolescents are more likely to sext, and why adolescents’ experiences of sexting seem to differ.

Ethical considerations

The research project, which included Study 1 and 2, was approved by the Regional Ethics Board in Gothenburg. This approval included using the questionnaire employed in both studies. Central points in the application concerned confidentiality,

privacy when answering questions, personal and parental consent, and the sensitive topics raised, and questions asked.

To ensure that no participants' responses could be identified by unauthorized people, all data were stored safely in encrypted hard drives, and identifiable personal information in all data files was removed. It is still, however, possible that in Study 2 some of the responses could be identifiable by teachers, parents, and peers of the participants. This was handled by removing any information that was very specific when writing up the manuscript, such as any adolescents' detailed descriptions of themselves.

During the data collection, the participants were able to answer the questionnaire privately so that no one would feel surveilled when answering sensitive questions. Boys and girls were also separated during the data collection. The main reason for this was the sensitive topic of the questions and the age of the participants, who could potentially be uncomfortable answering questions about sex in the presence of opposite-sex classmates. This separation, however, raises ethical considerations that gendered lines were maintained and highlighted for the participants. However, in this instance given the risk that some participants could feel uncomfortable answering questions about sex with the opposite sex present, the risk of maintaining gendered lines was seen as the least problematic option.

During the data collections, we sought informed and active consent from the participants and required active parental consent for participants under 15 years of age. A problem, however, may be that some adolescents' own decisions were overruled by their parents, which may be unethical because it deprives those adolescents of their right to make their own decisions concerning being part of the study (Alderson & Morrow, 2011). However, the disadvantage of requiring parental consent may be outweighed by avoiding the risk that some adolescents under 15 years

would agree to take part without fully understanding what participation in the research project entails, which their parents may have been able to help them with.

It is also possible that answering sensitive questions was uncomfortable for some participants (Alderson & Morrow, 2011). Therefore, the questions were carefully constructed for these studies so that they did not imply any blame for engaging in sexting and that no behaviors and answers could be interpreted to be more or less virtuous. It was also made clear to the participants that they should only answer questions they were comfortable with.

Concluding remarks

To conclude, this thesis examined adolescents' experiences of sexting, as well as perceptions of peers' views of sexting. The thesis has shown that sexting is a highly gendered phenomenon, meaning that there are different expectations on girls and boys, which in turn may affect their experiences of sexting. It was also evident that sexting is affected by a number of individual and psychosocial factors, such as risk-taking behaviors, familial- and peer influence, and the circumstances of the sexting situation. The thesis also indicated the perceived content of peer norms of sexting, including notions of when sexting is approved of by peers, as well as concerns over unequal gender standards. Sexting can be considered a sexual behavior similar to other adolescent sexual behaviors, but there are important differences to offline sexual behaviors, such as sexts can be spread to others.

Taking these findings together, it is important that adults within adolescents' immediate environment (e.g., caregivers, school personnel) acknowledge that some adolescents engage in sexting, recognizing the risks with sexting but also the importance of adolescents' sexual exploration. It is important that the adult world communicates to adolescents what circumstances of sexting may be more unsafe

than others, and to help adolescents challenge the negative gendered norms surrounding sexting and sexuality. It is also important to have an open conversational climate in which adolescents can share their experiences with adults, without being at risk of being shamed or feel guilt.

References

- Albury, K., & Crawford, K. (2012). Sexting, consent and young people's ethics: Beyond Megan's Story. *Continuum*, 26, 463-473. doi: 10.1080/10304312.2012.665840
- Albury, K., Crawford, K., Byron, P., & Mathews, B. P. (2013). Young people and sexting in Australia: ethics, representation and the law. ARC Centre for Creative Industries and Innovation/Journalism and Media Research Centre, UNSW.
- Alderson, P., & Morrow, V. (2011). *The ethics of research with children and young people: A practical handbook*. Sage Publications Ltd.
- Allison, R., & Risman, B. J. (2013). A double standard for “hooking up”: How far have we come toward gender equality? *Social Science Research*, 42, 1191-1206. doi: 10.1016/j.ssresearch.2013.04.006
- Associated Press & MTV (2009). 2009 AP-MTV digital abuse survey. Associated Press & MTV. Retrieved from http://www.athinline.org/pdfs/-MTV-AP_2011_Research_Study-Exec_Summary.pdf.
- Baumgartner, S. E., Sumter, S. R., Peter, J., & Valkenburg, P. M. (2012). Identifying teens at risk: Developmental pathways of online and offline sexual risk behavior. *Pediatrics*, 130, e1489-e1496. doi: 10.1542/peds.-2012-0842
- Baumgartner, S. E., Sumter, S. R., Peter, J., Valkenburg, P. M., & Livingstone, S. (2014). Does country context matter? Investigating the predictors of teen sexting across Europe. *Computers in Human Behavior*, 34, 157-164. doi: 10.1016/j.chb.2014.01.041
- Baumgartner, S. E., Valkenburg, P. M., & Peter, J. (2010). Unwanted online sexual solicitation and risky sexual online behavior across the lifespan. *Journal of Applied Developmental Psychology*, 31, 439-447. doi: 10.1016/j.apdev.2010.07.005

- Barrense-Dias, Y., Berchtold, A., Suris, J. C., & Akre, C. (2017). Sexting and the definition issue. *Journal of Adolescent Health, 61*, 544-554. doi: 10.1016/j.jadohealth.2017.05.009
- Beyens, I., & Eggermont, S. (2014). Prevalence and predictors of text-based and visually explicit cybersex among adolescents. *Young, 22*, 43-65. doi: 10.1177/0973258613512923
- Bond, E. (2011). The mobile phone= bike shed? Children, sex and mobile phones. *New Media & Society, 13*, 587-604. doi: 10.1177/1461444810-377919
- van de Bongardt, D., Reitz, E., Sandfort, T., & Deković, M. (2015). A meta-analysis of the relations between three types of peer norms and adolescent sexual behavior. *Personality and Social Psychology Review, 19*, 203-234. doi: 10.1177/1088868314544223
- Bronfenbrenner, U. (1979). *The ecology of human development*. Harvard university press.
- Bronfenbrenner, U. (2005). *Making human beings human: Bioecological perspectives on human development*. Thousand Oaks, CA: Sage.
- Bronfenbrenner, U., & Ceci, S. J. (1994). Nature-nuture reconceptualized in developmental perspective: A bioecological model. *Psychological Review, 101*, 568-586. doi: 10.1037/0033-295X.101.4.568
- Bronfenbrenner, U., & Morris, P. A. (1998). The ecology of developmental processes. In W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Theoretical models of human development* (pp. 993-1028). Hoboken, NJ: John Wiley & Sons Inc.
- Brown, J. D., & L'Engle, K. L. (2009). X-rated: Sexual attitudes and behaviors associated with US early adolescents' exposure to sexually explicit media. *Communication Research, 36*, 129-151. doi: 10.1177/009-3650208326465

- Buhi, E. R., & Goodson, P. (2007). Predictors of adolescent sexual behavior and intention: A theory-guided systematic review. *Journal of Adolescent Health, 40*, 4-21. doi: 10.1016/j.jadohealth.2006.09.027
- Campbell, S. W., & Park, Y. J. (2014). Predictors of mobile sexting among teens: Toward a new explanatory framework. *Mobile Media & Communication, 2*, 20-39. doi: 10.1177/2050157913502645
- Chia, S. C. (2006). How peers mediate media influence on adolescents' sexual attitudes and sexual behavior. *Journal of Communication, 56*, 585-606. doi: 10.1111/j.1460-2466.2006.00302.x
- Cialdini, R. B., & Goldstein, N. J. (2004). Social influence: Compliance and conformity. *Annual Review of Psychology, 55*, 591-621. doi: 10.1146/annurev.psych.55.090902.142015
- Cooper, A., Mannson, S. -A., Daneback, K., Tikkanen, R., & Ross, M. W. (2003). Predicting the future of internet sex: Online sexual activities in Sweden. *Sexual and Relationship Therapy, 18*, 277-291. doi: 10.1080/1468199031000153919
- Cooper, K., Quayle, E., Jonsson, L., & Svedin, C. G. (2016). Adolescents and self-taken sexual images: A review of the literature. *Computers in Human Behavior, 55*, 706-716. doi: 10.1016/j.chb.2015.10.003
- Copeland, W., Shanahan, L., Miller, S., Costello, E. J., Angold, A., & Maughan, B. (2010). Do the negative effects of early pubertal timing on adolescent girls continue into young adulthood?. *The American Journal of Psychiatry, 167*, 1218-1225 doi: 10.1176/appi.ajp.2010.09081190
- Corcoran, J. (2000). Ecological factors associated with adolescent sexual activity. *Social Work in Health Care, 30*, 93-111. doi: 10.1300/J010-v30n04_06
- Crawford, M., & Popp, D. (2003). Sexual double standards: A review and methodological critique of two decades of research. *Journal of Sex Research, 40*, 13-26. doi: 10.1080/00224490309552163

- Crofts, T., Lee, M., McGovern, A., & Milivojevic, S. (2015). *Sexting and young people*. London, UK: Palgrave MacMillan.
- Dake, J. A., Price, J. H., Maziarz, L., & Ward, B. (2012). Prevalence and correlates of sexting behavior in adolescents. *American Journal of Sexual Education, 7*, 1-15. doi: 10.1080/15546128.2012.650959
- Davis, E. C., & Friel, L. V. (2001). Adolescent sexuality: Disentangling the effects of family structure and family context. *Journal of marriage and family, 63*, 669-681. doi: 10.1111/j.1741-3737.2001.00669.x
- Diamond, L. M., & Savin-Williams, R. C. (2009). Adolescent sexuality. *Handbook of adolescent psychology, 1*, 479-523.
- Dir, A. L., & Cyders, M. A. (2015). Risks, risk factors, and outcomes associated with phone and internet sexting among university students in the United States. *Archives of Sexual Behavior, 44*, 1675-1684. doi: 10.1007/s10508-014-0370-7
- Dir, A. L., Cyders, M. A., & Coskunpinar, A. (2013). From the bar to the bed via mobile phone: A first test of the role of problematic alcohol use, sexting, and impulsivity-related traits in sexual hookups. *Computers in Human Behavior, 29*, 1664-1670. 10.1016/j.chb.2013.01.039
- Döring, N. (2014). Consensual sexting among adolescents: Risk prevention through abstinence education or safer sexting?. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 8*. doi: 10.5817/CP2-014-1-9
- Englander, E. (2012). Low risk associated with most teenage sexting: A study of 617 18-year-olds. Retrieved from: https://vc.bridgew.edu/c-gi/viewcontent.cgi?referer=https://scholar.google.se/&httpsredir=1&article=1003&context=marc_reports
- Gómez-Guadix, M., Almendros, C., Borrajo, E., & Calvete, E. (2015). Prevalence and association of sexting and online sexual victimization among Spanish

- adults. *Sexuality Research and Social Policy*, 12, 145-154. doi: 10.1007/s13178-015-0186-9
- Gámez-Guadix, M., de Santisteban, P., & Resett, S. (2017). Sexting among Spanish adolescents: Prevalence and personality profiles. *Psicothema*, 29, 29-34. doi: 10.7334/psicothema2016.222
- Gewirtz-Meydan, A., Mitchell, K. J., & Rothman, E. F. (2018). What do kids think about sexting? *Computers in Human Behavior*, 86, 256-265. doi: 10.1016/j.chb.2018.04.007
- Gibson, J. W., & Kempf, J. (1990). Attitudinal predictors of sexual activity in Hispanic adolescent females. *Journal of Adolescent Research*, 5, 414-430. doi: 10.1177/074355489054003
- Goldberg, J. H., Halpern-Felsher, B. L., & Millstein, S. G. (2002). Beyond invulnerability: the importance of benefits in adolescents' decision to drink alcohol. *Health Psychology*, 21, 477-484. doi: 10.1037/0278-6133.21.5.477
- de Graaf, H., Vanwesenbeeck, I., Woertman, L., & Meeus, W. (2011). Parenting and adolescents' sexual development in western societies. *European Psychologist*, 16, 21-31. doi: 10.1027/1016-9040/a000031
- Grogan, S. (2016). *Body image: Understanding body dissatisfaction in men, women and children*. Routledge.
- Henrich, C. C., Brookmeyer, K. A., Shrier, L. A., & Shahar, G. (2005). Supportive relationships and sexual risk behavior in adolescence: An ecological–transactional approach. *Journal of Pediatric Psychology*, 31, 286-297. doi: 10.1093/jpepsy/jsj024
- Henderson, L. (2011). Sexting and sexual relationships among teens and young adults. *McNair Scholars Research Journal*, 7, 9.
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative health research*, 15(9), 1277-1288. doi:

10.1177/1049732305276687

- Hwang, P., Frisé, A., & Nilsson, B. (2018). Ungdomar och unga vuxna: Utveckling och livsvillkor [Young people and emerging adults: Development and living conditions]. Stockholm, Sweden: Natur och Kultur
- Johnson, G. (2010). Internet use and child development: The techno-microsystem. *Australian Journal of Educational and Developmental Psychology (AJEDP)*, *10*, 32-43.
- Jones, K. E., Meneses da Silva, A. M., & Soloski, K. L. (2011). Sexological Systems Theory: an ecological model and assessment approach for sex therapy. *Sexual and Relationship Therapy*, *26*, 127-144. doi: 10.1080/14681994.2011.574688
- Jonsson, L., Bladh, M., Priebe, G., & Svedin, C. G. (2015). Online sexual behaviours among Swedish youth: Associations to background factors, behaviours and abuse. *European Child & Adolescent Psychiatry*, *24*, 1245-1260. doi: 10.1007/s00787-015-0673-9
- Jonsson, L., Cooper, K., Quayle, E., Svedin, C. G., & Hervy, K. (2015). *Young people who produce and send nude images: Context, motivation and consequences*. Retrieved from <http://www.barnafrid.se/2016/05/3-0/spirto-young-people-who-produce-and-send-nude-images-context-motivation-and-consequences-2015/>
- Jonsson, L. S., Priebe, G., Bladh, M., & Svedin, C. G. (2014). Voluntary sexual exposure online among Swedish youth—social background, Internet behavior and psychosocial health. *Computers in Human Behavior*, *30*, 181-190. doi: 10.1016/j.chb.2013.08.005
- Jonsson, L., & Svedin, C. G. (2017). Fördjupningsrapport: Barn utsatta för sexuella övergrepp på nätet [Report: Children exposed to sexual abuse online]. Stockholm, Sweden: Stiftelsen Allmänna Barnhuset. Retrieved from:

<http://www.allmannabarnhuset.se/wp-content/uploads/2017/02/-Rapport-Sexuella-%C3%B6vergrepp-p%C3%A5-n%C3%A4tet..pdf>

- Kerstens, J., & Stol, W. (2014). Receiving online sexual requests and producing online sexual images: The multifaceted and dialogic nature of adolescents' online sexual interactions. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 8. doi: 10.5817/CP2014-1-8
- Kim, J. L., Lynn Sorsoli, C., Collins, K., Zylbergold, B. A., Schooler, D., & Tolman, D. L. (2007). From sex to sexuality: Exposing the heterosexual script on primetime network television. *Journal of Sex Research*, 44, 145-157. doi: 10.1080/00224490701263660
- Klettke, B., Hallford, D. J., & Mellor, D. (2014). Sexting prevalence and correlates: A systematic literature review. *Clinical Psychology Review*, 34, 44-53. doi: 10.1016/j.cpr.2013.10.007
- Kopecký, K. (2012). Sexting among Czech preadolescents and adolescents. *The New Educational Review*, 28, 39-48.
- Kosenko, K., Luurs, G., & Binder, A. R. (2017). Sexting and sexual behavior, 2011–2015: A critical review and meta-analysis of a growing literature. *Journal of Computer-Mediated Communication*, 22, 141-160. doi: 10.1111/jcc4.12187
- Kreager, D. A., Staff, J., Gauthier, R., Lefkowitz, E. S., & Feinberg, M. E. (2016). The double standard at sexual debut: Gender, sexual behavior and adolescent peer acceptance. *Sex roles*, 75, 377-392. doi: 10.1007/s11199-016-0618-x
- Kunkel, D., Eyal, K., Finnerty, K., Biely, E., & Donnerstein, E. (2005). *Sex on TV 4*. Menlo Park, CA: Kaiser Family Foundation.
- Lee, M., & Crofts, T. (2015). Gender, pressure, coercion and pleasure: Untangling motivations for sexting between young people. *British Journal of Criminology*, 55, 454-473. doi: 10.1093/bjc/azu075

- Lee, M., Crofts, T., McGovern, A., & Milivojevic, S. (2015). Sexting among young people: Perceptions and practices. *Trends & Issues in Crime and Criminal Justice*, 508, 1-9.
- Lee, M., Crofts, T., Salter, M., Milivojevic, S., & McGovern, A. (2013). 'Let's get sexting': risk, power, sex and criminalisation in the moral domain. *International Journal for Crime, Justice and Social Democracy*, 2, 35-49. doi: 10.5204/ijcjsd.v2i1.89
- Lenhart, A. (2009). *Teens and sexting: How and why minor teens are sending sexually suggestive nude or nearly nude images via text messaging*. Retrieved from Pew Research Center website: http://www.pewinternet.org/~media/Files/Reports/2009/PIP_Teens_and_Sexting.pdf. Accessed 25 September 2017.
- Lippman, J. R., & Campbell, S. W. (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*, 8, 371-386. doi: 10.1080/17482798.2014.923009
- Livingstone, S., & Görzig, A. (2014). When adolescents receive sexual messages on the internet: Explaining experiences of risk and harm. *Computers in Human Behavior*, 33, 8-15. doi: /10.1016/j.chb.2013.12.-021
- Lottes, I. L., & Alkula, T. (2011). An investigation of sexuality-related attitudinal patterns and characteristics related to those patterns for 32 European countries. *Sexuality Research and Social Policy*, 8, 77-92. doi: 10.1007/s13178-011-0038-1
- Lunceford, B. (2011). The new pornographers: legal and ethical considerations of sexting. *The Ethics of Emerging Media: Information, Social Norms, and New Media Technology*. New York, NY: Continuum International Publishing Group, 99-118.

- Madigan, S., Ly, A., Rash, C. L., Van Ouytsel, J., & Temple, J. R. (2018). Prevalence of multiple forms of sexting behavior among youth: a systematic review and meta-analysis. *JAMA pediatrics*, *172*, 327-335. doi: 10.1001/jamapediatrics.2017.5314
- Martel LD, Hawks S, and Hatfield E, 2004, "Sexual behavior and culture," In Charles Spielberger (Ed.), *Encyclopedia of Applied Psychology*, London: Elsevier Ltd.
- McArdle, A. (2015, October 12). When I was a 13-year-old camgirl. Broadly. Retrieved from https://broadly.vice.com/en_us/article/gvze33/when-i-was-a-13-year-old-camgirl
- McGovern, A., Crofts, T., Lee, M., & Milivojevic, S. (2016). Media, legal and young people's discourses around sexting. *Global Studies of Childhood*, *6*, 428-441. doi: 10.1177/2043610616676028
- Mendle, J., & Ferrero, J. (2012). Detrimental psychological outcomes associated with pubertal timing in adolescent boys. *Developmental Review*, *32*, 49-66. doi: 10.1016/j.dr.2011.11.001
- Mitchell, K. (2010). Remaining safe and avoiding dangers online: a social media Q & A with Kimberley Mitchell. *The Prevention Researcher*, *17*(S1), 7-10.
- Mitchell, K. J., Finkerhor, D., Jones, L. M., & Wolak, J. (2012). Prevalence and characteristics of youth sexting: A national study. *Pediatrics*, *129*, 13-20. doi: 10.1542/peds.2011-1730
- Petersen, J. L., & Hyde, J. S. (2010). A meta-analytic review of research on gender differences in sexuality, 1993-2007. *Psychological Bulletin*, *136*, 21-38. doi: 10.1037/a0017504
- Pick, S., & Palos, P. A. (1995). Impact of the family on the sex lives of adolescents. *Adolescence*, *30*, 667-675.
- Reyns, B. W., Burek, M. W., Henson, B., & Fischer, B. S. (2013). The unintended

- consequences of digital technology: Exploring the relationship between sexting and cybervictimization. *Journal of Crime and Justice*, 36, 1-17. doi: 10.1080/0735648X.2011.641816
- Rice, E., Rhoades, H., Winetrobe, H., Sanchez, M., Montoya, J., Plant, A., & Kordic, T. (2012). Sexually explicit cell phone messaging associated with sexual risk among adolescents. *Pediatrics*, 130, 667-673. doi: 10.1542/peds.2012-0021
- Ringrose, J., Gill, R., Livingstone, S., & Harvey, L. (2012). *A qualitative study of children, young people and 'sexting': A report prepared for the NSPCC*. Retrieved from National Society for the Prevention of Cruelty to Children website: <https://www.nspcc.org.uk/globalassets/documents/research-reports/qualitative-study-children-young-people-sexting-report.pdf/>.
- Ringrose, J., Harvey, L., Gill, R., & Livingstone, S. (2013). Teen girls, sexual double standards and 'sexting': Gendered value in digital image exchange. *Feminist Theory*, 14, 305-323. doi: 10.1177/146470011349-9853
- Rodríguez-Castro, Y., Alonso-Ruido, P., González-Fernández, A., Lameiras-Fernández, M., & Carrera-Fernández, M. V. (2017). Spanish adolescents' attitudes towards sexting: Validation of a scale. *Computers in Human Behavior*, 73, 375-384. doi: 10.1016/j.chb.2017.03.049
- Salter, M. (2016). Privates in the online public: Sex (ting) and reputation on social media. *New Media & Society*, 18(11), 2723-2739. doi: 10.1177/1461444815604133
- Sawyer, S. M., Afifi, R. A., Bearinger, L. H., Blakemore, S. J., Dick, B., Ezeh, A. C., & Patton, G. C. (2012). Adolescence: a foundation for future health. *The Lancet*, 379(9826), 1630-1640. doi: 10.1016/S0140-6736(12)60072-5
- Siegle, D. (2010). Cyberbullying and sexting: Technology abuses of the 21st century. *Gifted Child Today*, 33, 14-65. doi: 10.1177/1076217510-03300206

- Sisk, C. L., & Zehr, J. L. (2005). Pubertal hormones organize the adolescent brain and behavior. *Frontiers in Neuroendocrinology*, 26, 163-174. doi: 10.1016/j.yfrne.2005.10.003
- Sorbring, E., Skoog, T., & Bohlin, M. (2014). Adolescent girls' and boys' well-being in relation to online and offline sexual and romantic activity. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 8. doi: 10.5817/CP2014-1-7
- Sprecher, S., Treger, S., & Sakaluk, J. K. (2013). Premarital sexual standards and sociosexuality: Gender, ethnicity, and cohort differences. *Archives of Sexual Behavior*, 42, 1395-1405. doi: 10.1007/s10508-013-0145-6
- Steinberg, L. (2011). *Adolescence* (10th ed.). New York, NY: McGraw-Hill
- Steinberg, L., Fletcher, A., & Darling, N. (1994). Parental monitoring and peer influences on adolescent substance use. *Pediatrics*, 93, 1060-1064.
- Strasburger, V. C., Wilson, B. J., & Jordan, A. B. (2009). *Children, adolescents, and the media*. Sage.
- Swedish Media Council (2017). *Unga och medier* [Youth and media]. Retrieved from <https://statensmedierad.se/download/18.7b0391dc15c38f-fbccd9a238/1496243409783/Ungar%20och%20medier%202017.pdf>
- Swedish National Agency for Education (2018). *SALSA – en statistisk modell* [SALSA – a statistical model. Retrieved from <https://www.skolverket.se/skolutveckling/statistik/om-skolverkets-statistik/salsa-statistisk-modell>
- Temple, J. R., & Choi, H. (2014). Longitudinal association between teen sexting and sexual behavior. *Pediatrics*, 134, e1287-1292. doi: 10.154-2/peds.2014-1974
- Temple, J. R., Paul, J. A., van den Berg, P., Le, V. D., McElhany, A., & Temple, B. W. (2012). Teen sexting and its association with sexual behaviors. *Archives*

of Pediatrics and Adolescent Medicine, 166, 828-833. doi: 10.1001/archpediatrics.2012.835

Temple, J. R., Le, V. D., van den Berg, P., Ling, Y., Paul, J. A., & Temple, B. W. (2014). Brief report: Teen sexting and psychosocial health. *Journal of Adolescence*, 37, 33-36. doi: 10.1016/j.adolescence.2013.10.008

Temple-Smith, M., Moore, S., & Rosenthal, D. (2015). *Sexuality in Adolescence: The digital generation*. New York, Hove UK: Routledge.

Vanden Abeele, M., Campbell, S. W., Eggermont, S., & Roe, K. (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, 6-33. doi: 10.1080/15213269.2013.801725

Vanden Abeele, M., Roe, K., & Eggermont, S. (2012). An exploration of adolescents' sexual contact and conduct risks through mobile phone use. *Communications*, 37, 55-77. doi: 10.1515/commun-2012-0003

Van Ouytsel, J., Van Gool, E., Ponnet, K., & Walrave, M. (2014). Brief report: The association between adolescents' characteristics and engagement in sexting. *Journal of Adolescence*, 37, 1387-1391. doi: 10.1016/j.adolescence.2014.10.004

Van Ouytsel, J., Van Gool, E., Walrave, M., Ponnet, K., & Peeters, E. (2017). Sexting: adolescents' perceptions of the applications used for, motives for, and consequences of sexting. *Journal of Youth Studies*, 20, 446-470. doi: 10.1080/13676261.2016.1241865

Van Ouytsel, J., Walrave, M., & Van Gool, E. (2014). Sexting: Between thrill and fear—How schools can respond. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 87, 204-212. doi: 10.1080/00098655.2014.918532

Vanwesenbeeck, I., Ponnet, K., Walrave, M., & Van Ouytsel, J. (2018). Parents'

- Role in Adolescents' *Sexting* Behaviour. In *Sexting* (pp. 63-80). Palgrave Macmillan, Cham.
- Walrave, M., Heirman, W., & Hallam, L. (2014). Under pressure to sext? Applying the theory of planned behavior to adolescent sexting. *Behaviour & Information Technology*, *33*, 86-98. doi: 10.1080/0144929X.2013.837099
- Walrave, M., Ponnet, K., Van Ouytsel, J., Van Gool, E., Heirman, W., & Verbeek, A. (2015). Whether or not to engage in sexting: Explaining adolescent sexting behaviour by applying the prototype willingness model. *Telematics and Informatics*, *32*, 796-808. doi: 10.1016/j.tele.2015.03.008
- Weeks, J. (2010). *Sexuality*. New York, NY: Taylor & Francis.
- Weinberg, M. S., Lottes, I., & Shaver, F. M. (2000). Sociocultural correlates of permissive sexual attitudes: A test of Reiss's hypotheses about Sweden and the United States. *Journal of Sex Research*, *37*, 44-52. doi: 10.1080/00224490009552019
- Wendt, E. (2016). Ungdomsmottagningens förebyggande och hälsofrämjande arbete. In E. Häggström-Nordin & C. Magnusson (Eds), *Ungdomar, sexualitet och relationer* [Youth, sexuality and relationships] (pp. 361-379). Lund, Sweden: Studentlitteratur.
- Wolak, J., & Finkelhor, D. (2011). *Sexting: A typology*. Retrieved from: <https://scholars.unh.edu/cgi/viewcontent.cgi?article=1047&context=ccrc>
- Wood, M., Barter, C., Stanley, N., Aghtaie, N., & Larkins, C. (2015). Images across Europe: The sending and receiving of sexual images and associations with interpersonal violence in young people's relationships. *Children and Youth Services Review*, *59*, 149-160. doi: 10.1016/j.childyouth.2015.11.005
- World Health Organization (2018). *Adolescent development*. Retrieved from: http://www.who.int/maternal_child_adolescent/topics/adolescence/development/en/

- Ybarra, M. L., & Mitchell, K. J. (2014). "Sexting" and its relation to sexual activity and sexual risk behavior in a national survey of adolescents. *Journal of Adolescent Health, 55*, 757-764. doi: 10.1016/j.jadohealth.2014.07.012
- Ybarra, M. L., Mitchell, K. J., Finkelhor, D., & Wolak, J. (2007). Internet prevention messages: Targeting the right online behaviors. *Archives of Pediatrics and Adolescent Medicine, 161*, 138-145. doi: 10.1001/arch-pedi.161.2.138
- Zuckerman, M. (2008). Sensation seeking. *The International Encyclopedia of Communication*.

Appendix

- I. Burén, J., & Lunde, C. (2018). Sexting among adolescents: A nuanced and gendered online challenge for young people. *Computers in Human Behavior*, 85, 210-217. doi: 10.1016/j.chb.2018.02.003

- II. Burén, J., Holmqvist Gattario, K., & Lunde, C. (2018). "I think our generation has a relatively open mind": The content of injunctive peer norms of sexting. Manuscript in preparation.

I

