

The prevalence and characteristics of sexting behaviours among adolescents and adults in Cape Town, South Africa

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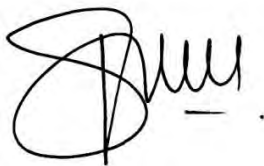
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Glossary of Terms and Abbreviations

Terms

Sexting is defined as creating and sending sexually explicit photographs or messages via mobile (cellular) phone or other digital devices. (The Oxford Online Dictionary, <http://oxforddictionaries.com/definition/english/sexting>).

Cybersex refers to the act of at least two people connecting via the Internet, usually through instant message (IM) or chat platforms, and sending messages intended to sexually arouse the other person (Rosen, 2007).

Abbreviations

ASB	Actual Sexual Behaviour
LO	Life Orientation
NSNI	Nude or semi-nude images (a sexted message containing images)
OSM	Online social media
SEM	Sexually explicit material
SMD	Sexual media diet
SSTM	Sexually suggestive text messages (a sexted message without images)

ABSTRACT

“Sexting” is defined as the act of sending sexually suggestive text messages (SSTMs), or the self-generation of nude or semi-nude images (NSNIs) and sending them to others via digital devices. It has recently emerged as a risk behaviour, particularly as it relates to adolescent sexuality. The consequences of sexting may include humiliation, ostracism, depression, anxiety, suicide and criminal or legal action. As such, research into the practice is vital in order to mitigate the risk to adolescents.

The current study aimed to investigate the prevalence and characteristics of sexting among a sample of adolescents and adults in Cape Town, South Africa. The sample comprised three distinct groups: 1) 451 adolescents from four independent high schools (M age = 16.02 years; SD = 1.49); 2) 319 undergraduate psychology students from the University of Cape Town (UCT) (M age = 20.24 years; SD = 2.37); and 3) 82 adult participants who formed part of a snowball Internet sample recruited via email and social media platforms (M age = 31.2 years; SD = 8.36). Data from the two adult samples were combined for the purposes of analysis and subsequent ease of adolescent and adult comparison. The total sample was made up of 852 respondents (age 12 – 64 years; 335 male and 517 female).

The study was predominantly quantitative and cross-sectional in design. A small qualitative component was included to allow for in-depth findings around the issue of gendered sexting. An adolescent and adult Sexting Survey was developed for data collection (both electronically and in hard copy) as no standardised measure currently exists. Survey items covered attitudes, beliefs, behaviours, risks, education and intervention related to sexting.

The results of the study suggest that sexting among the adolescent and adult sample is at least as prevalent as represented in international studies, although the absence of a standardised questionnaire precludes inter-study comparison to any significant degree. The prevalence of sending SSTM fell between 13.9% - 45.9% for adolescents and 13.9% - 55.2% for adults, depending on the relational context. The lowest frequency points to those participants who sent a SSTM to someone they *knew only online*, and the highest frequency in each case refers to respondents who have sent SSTMs to someone they were *romantically involved with*. When sexting was defined as the act of creating and sending nude or semi-nude images (NSNI), adolescent prevalence was between 5.3% - 20.1% and adults 6.1% - 35.8%, with relational contexts again accounting for the range.

Chi-square analyses (with confidence levels set at 95%) were used to test three specific hypotheses. The results revealed that older adolescents (16-19 years) were significantly more likely to send NSNI and SSTM to *someone they liked*, than their younger counterparts (aged 12-15). Older adolescents were also more likely to send SSTM to someone they were *in a relationship with*. In terms of online risk taking, adolescent males were found more likely than their female counterparts to send NSNI to someone known to them *only online*. Sexting was also correlated to actual sexual behaviour (ASB) among adolescents. Specifically, sending NSNI to someone the participant *liked* and *wanted to hook up with* was positively related to engaging in ASB. Similarly, sending NSNI to someone the respondent was *in a relationship with* and engaging in ASB were significantly related. With regard to sending SSTM to someone the participants *liked* and *wanted to hook up with* and engaging in ASB, the relationship also proved positive. Lastly, sending a SSTM was positively correlated to ASB for adolescents *in a relationship*.

The findings of the study suggest that sexting is variably prevalent at least within the highly selective sample of Cape Town adolescents and adults in the study, with age, gender and actual sexual behaviour seeming to have some association with sexting trends. Further investigation and intervention around the psychosocial, sexual, educational and legal consequences of sexting for adolescents is advised.

Keywords: Sexting, online sexual communication, adolescent sexuality, sexual risk behaviour, cybersex, online social media, cyberbullying, mass media.

CHAPTER 1

INTRODUCTION

This chapter aims to establish sexting as a research-worthy topic and to motivate for the importance of this study within the South African context. The following will be addressed: The definition and context of sexting, how technology and casual adolescent relationships account for the trend, the conflicting positive and negative aspects thereof, and the need for relevant sexting education and intervention for young people.

The objective of the current study was to investigate the prevalence and characteristics of sexting among a sample of Cape Town adolescents and adults. The term “sexting” was first reported in a 2005 article in the *Sunday Telegraph Magazine* (Wikipedia), and since then has been listed as a “buzzword” (Stephey, 2009) and a “word of the year” finalist (Stanglin, 2009). Sexting occurs when sexually suggestive text messages (SSTMs) or naked or semi-naked images (NSNIs) are created and sent via digital media. As today’s cell phones (mostly “smartphones”) are linked to cameras and the Internet, their ease of use in sexting has been highlighted (Lenhart, Ling, Campbell, & Purcell, 2010). The self-created, sexually provocative image is generally what constitutes the central and most controversial feature of youth sexting (Chalfen, 2009).

The Internet, online social media platforms (e.g. Facebook) and the ubiquitous use of personal cell phones and digital devices have radically changed adolescent communication and socialisation (Valkenburg & Peter, 2007). Aside from the positive aspects of this type of technology, cyberbullying and access to sexually explicit material (SEM) have also come to the forefront of adolescent experience (Strassberg, McKinnon, Sustaíta, & Rullo, 2012), with the latter proving particularly risky (Baumgartner, Valkenburg, & Peter, 2010).

Apart from sophisticated personal technologies, casual relational patterns provide further impetus for adolescent sexting. Research suggests a decline in conventional adolescent dating in favour of casual “hook ups” (Daniel & Fogarty, 2007). Hook ups are sexual encounters ranging from kissing to intercourse, which are typically non-exclusive, emotionally shallow, and have the purpose of once-off sexual activity (Glenn & Marquardt, 2001). Adolescents’ borderless real and virtual worlds merge constantly (Ringrose, Gill, Livingstone, & Harvey, 2012). As a result, the combination of their tendency toward casual sexual relationships and their pervasive use of online technology for self-expression and peer interaction sets the stage for intimate, yet very public, sharing (Castells, 2007).

Sexting has well documented psychosocial, scholastic and legal outcomes (Chalfen, 2009; Lenhart, 2009); however, researchers dissent on whether these consequences are helpful or harmful to adolescents. Essentially, there are two contradicting discourses: 1) sexting is dangerous and exploitative and 2) sexting is relatively safe and developmentally helpful.

On the harmful front, those seeking to apportion blame for sexting often point to the mass media's fear mongering stance and society's "hypersexualised" culture (Lounsbury, Mitchell, & Finkelhor, 2011). In *Disconnected*, his book exploring adolescent subcultures, Barham (2004) claims that the "the streets have gone sexual" (2004, p. 150). The argument is that the majority of adolescents have been exposed to pornography on the Internet (Lounge, 2006) and become desensitised to sexually explicit material (SEM) (Walker, Sanci, & Temple-Smith, 2011). This has been dubbed the "pornification of a generation" – where sex is used to sell nearly everything (Shafron-Perez, 2009; Muscari, 2009).

One of the most contentious issues to emerge around sexting is how gender informs and mediates digital sexual communication. Ringrose, Gill, Livingstone and Harvey (2012) argue that sexting is thoroughly moulded by gender politics: Collecting images of naked girls has a social and relational currency, directly tied to a boy's status among his peer group. Girls are valued for their bodies and sexual appeal, and this is traded by boys who, despite being on the requesting end in the dynamic, seem to possess all the power.

There is significant tension around the legal and criminal aspects of juvenile sexting. Under current legislation in the UK, USA and SA, minors found to have sexted NSNI to underage friends or partners, could be charged with the creation, possession and dissemination of child pornography (Beger, Sinha, & Pawelczyk, 2012; Walker & Moak, 2010). How to manage the legal and criminal implications of adolescent sexting continues to present a contentious issue for role-players.

Those who consider sexting to be helpful to adolescents suggest that online social networking allows young people the opportunity to safely present who they are or want to be, as well as the chance to develop assertiveness in online and offline relationships (Livingstone, 2008; Rosen, 2007). Sexting also seems to be effectively utilised in normal adolescent developmental tasks, including identity development, sexual exploration and the development and maintenance of intimate relationships (Erikson, 1968; Furman & Buhrmester, 1992; Grotevant & Cooper, 1986; Patton et al., 2004).

Hasinoff (2010) argues that social media may be particularly valuable in allowing adolescent girls to take agency in shaping their sexuality. Furthermore, she challenges the

issue of online anonymity, where girls are cautioned to guard their identities and disavow their femininity in the event that sexual predators are lurking in cyberspace. Unfortunately, this reinforces the myth that unknown online paedophiles are the most likely to commit sexual assault, whereas in reality the majority of perpetrators are *known* to their victims (Mitchell, Wolak, & Finkelhor, 2005). Hasinoff also critiques the double standard of girls who sext being regarded as irresponsible, whereas boys who sext are seldom subjected to the same judgement.

Unfortunately, there seems to be inadequate empirical evidence to judge the merits of the opposing arguments presented above. The issue of youth sexting is furthermore insufficiently researched in South Africa. Some local authors have contributed to the understanding of adolescents' use of social media (Bosch, 2011; Bothma, 2011; Swanepoel & Thomas, 2011); however, little is known about the extent of sexting locally, suggesting a significant gap in the research.

The remainder of this thesis will be structured as follows. Chapter 2 reviews the academic literature regarding the prevalence and characteristics of sexting, focusing on the attitudes and behaviours of young people, as well as risks, consequences, demographic variables and educational interventions. Chapter 3 explores the study's aims and methodology, elaborating on design, sampling, measures, data analysis and ethical issues. In Chapter 4 frequencies and statistical test results of the following hypotheses will be presented:

- H¹: Sexting is more frequent among older adolescents than among younger adolescents.
- H²: Adolescent boys are more likely than adolescent girls to sext someone known to them only online.
- H³: Sexting is correlated to actual sexual behaviour (ASB) such as performing or receiving oral sex (OS), or engaging in anal (AS) and / or vaginal sex (VS).

Chapter 5 extrapolates the results as related to the academic literature, and culminates in a review of the limitations of the study and suggestions for future research.

CHAPTER 2

LITERATURE REVIEW

This chapter will introduce “sexting” as it relates to adolescent and adult relationships. Attention will be given to providing a definition and context, and to discussing the prevalence rates within the academic literature. The reasons for sexting, the role of a “hypersexual” culture, risks, and intervention strategies will also be explored. Lastly, the focus will shift to exposing the dearth of research in South Africa and motivating for further empirical investigation.

2.1 Search Strategy

Sexting, a novel, technology-based phenomenon, first surfaced alongside Internet-enabled smartphones and online social media. As the term was first publically noted in 2005 (Wikipedia), the literature search strategy focused on post-2005, peer reviewed, and English-medium research material. The search terms “sexting”, “online sexual behaviour”, “cybersex”, “cyberbullying” and “adolescent online risk behaviour” were employed.

Much of the material reviewed was obtained via the UCT e-resources library portal. Databases used were Academic Search Premier, PsycINFO, PsycArticles, EBSCOhost, ERIC, Google and Google Scholar. The following scientific journals were also purposively searched as they were most likely to contain relevant articles: *Journal of Adolescence*, *Journal of Adolescent Health*, *Journal of Youth Studies*, *Journal of Child and Adolescent Mental Health*, *Journal of Information Communication*, *American Journal of Sexuality Education* and *CyberPsychology and Behaviour*. Additionally, the reference lists of retrieved studies were perused for relevant research.

The majority of cited studies originated in the UK and USA. There is a paucity of topical academic literature from the SA context.

2.2 Definition of Terms and Parameters

Adolescent sexual risk behaviour has many negative associations, e.g. unplanned pregnancies, exposure to sexually transmitted diseases (including HIV), and sexual violence (Hamill & Chepko, 2005; Henderson, 2011). Whilst some risk-taking is considered appropriate in adolescence (Baumrind, 1983), excessive risk is thought to be detrimental to well-being (Furby & Beyth-Marom, 1992). Recently, a new phenomenon has emerged as part of adolescent risk behaviour – “sexting”. The term sexting, a hybrid neologism, combines the method of technology (texting) with the subject (sex) (Day, 2010). It refers to using a

digital medium (e.g. a cell phone camera) to take nude or semi-nude images (NSNI) of oneself and send them to others, via a cell phone or Internet-based social media sites (Chalfen, 2009). An important feature is that the sexted images are user-generated and not already found on the Internet (National Campaign for the Prevention of Teen and Unplanned Pregnancy, 2008). Sexting also takes the form of sexually suggestive text messages (SSTM) sent with the intent of arousal. Mott's Children's Hospital National Poll placed sexting among the Top Ten Health Concerns for young people in 2011 (Knowledge Networks, 2012).

2.3 The Prevalence of Sexting

Whilst the mass media have given the impression that sexting is epidemic, there is little consistency in the estimated prevalence (Lounsbury, Mitchell, & Finkelhor, 2011). In one UK study researchers concluded that sexting was *as common* as exposure to online pornography and *more common* than cyberbullying, with the latter reportedly still causing the most distress (Hasebrink, Livingstone, Haddon, & Ólafsson, 2009).

Much has been said about the prevalence discrepancy in adolescent sexting and critics find fault in several key areas (Lounsbury, Mitchell, & Finkelhor, 2011). First, many of the USA and UK quantitative studies used convenience, non-representative samples where data was weighted to render the findings more applicable (e.g. NCPTUP, 2008; Cox Communication, 2009). Second, the lexicon around sexting constructs across studies was highly variable, making data comparison nearly impossible (Hinduja & Patchin, 2008; Walker, Sanci, & Temple-Smith, 2011). Third, some studies combined the results of various age groups e.g. 13 – 19 year olds in some, and 20 – 26 year olds in others. This possibly skewed the results and implications, as sexting for minors is illegal, even if it is consensual, however for those 18 years and older it carries neither criminal nor legal penalties. Fourth, whilst not directly related to empirical research per se, Lounsbury, Mitchell and Finkelhor (2011) admonish the mass media for skewed reporting on these studies which leads to sensationalism and a distorted public view of the issue.

The major quantitative studies reviewed for this report are summarised in Table 1.

Table 1
Summary of Major Sexting Studies 2008 - 2012

Year	Author	Country	N	Age Range	%NSNI Sent	%NSNI Received	Definition as per survey measure
2008	National Campaign for the Prevention of Teenage and Unplanned Pregnancy (NCPTUP) & Cosmogirl: Sex & Tech Survey	USA	1280	13-26	19-32	2-67	Sending or posting NSNI or videos of themselves
2009	MTV & Associated Press Digital Abuse Study	USA	1247	14-24	10	2-67	Sending or forwarding nude, sexually suggestive or explicit pictures on cell phone or online.
2009	Lenhart	USA	800	12-17	4	15	Sending or receiving sexually suggestive nude or nearly nude photos or videos using your cell phone.
2009	Phippen	UK	535	11-18	40	15	The sharing of explicit images electronically.
2009	Cox Communications	USA	655	13-18	20	-	Sending sexually suggestive texts or emails with nude or nearly nude photos.
2011	Henderson	USA	468	18-30	60	-	Transmission of nude or semi-nude images or sexually suggestive text messages through cell phones.
2012	Mitchell, Finkelhor, Jones, & Wolak	USA	1560	10-17	2.5	5.9-7.1	Transmission via cell phone, the Internet & other electronic media of sexual images.
2012	Strassberg, McKinnon, Sustaíta, & Rullo	USA	606	13-18	20	40	Transfer of sexually explicit photos via cell phone.
2012	Dake, Price, Maziarz, & Ward	USA	1289	13-18	3-32	16-19	Sending, receiving or forwarding sexually explicit messages or nude, partially nude or sexually suggestive digital images.

From Table 1 it is possible to determine that the proportion of adolescents sending NSNIs ranged from 2.5% to 60%. The lowest prevalence was found in a telephone survey of 1560 USA youth 10-17 years old (Mitchell, Finkelhor, Jones, & Wolak, 2012), where only 2.5% of respondents reportedly created and shared NSNIs. The highest prevalence occurred in a study of 468 18-30 year olds in the USA, which suggests that young adults are more likely than adolescents to sext (Henderson, 2011). The MTV / Associated Press Digital Abuse study (2009) reviewed a broad sample of 14 –24 year olds in the USA, and found that 10% sent NSNI. However, this may not be a true reflection of adolescent sexting as the researchers aggregated the results across adolescent and adult groups. An inter-country comparison revealed that the UK study (Phippen, 2009) found a much higher prevalence of sending NSNIs among adolescents (up to the age of 18) than any of the USA studies.

In general, more adolescents report receiving than sending NSNIs. One study found that whilst only 4% of 12–17 year old cell phone owners had sent NSNIs of themselves, 15% had received such images (Lenhart, 2009). Similarly, nearly 40% of high school students reported receiving a NSNI, with just 20% ever sending one (Strassberg, McKinnon, Sustaíta, & Rullo, 2012).

Age and gender seemed to have a particular effect on sexting and actual sexual behaviour, with older adolescents and girls more likely to engage in both activities (Dake, Price, Maziarz, & Ward, 2012). However, whilst girls are more likely to have sexted someone they were in a relationship with, boys are more likely than girls to have sexted someone they *wanted to* date or hook up with, or someone they knew *only online* (NCPTUP, 2008).

2.4 Why do Adolescents Sext?

Whilst the above quantitative studies provided useful prevalence rates, the only qualitative study of its kind, the UK National Society for the Prevention of Cruelty to Children (NSPCC) report, produced interesting data around adolescents' reasons for sexting. The authors, Ringrose, Gill, Livingstone and Harvey (2012), undertook to understand sexting directly from adolescents and went so far as to *not* develop constructs in order to keep the dialogue and findings as participant-driven as possible. Their methodology included semi-structured individual interviews, focus groups and online ethnology via Facebook. Their sample comprised 35 adolescents (years 8 and 10) from two mixed socio-economic status (SES) London schools. The findings of the NSPCC study extend those of the quantitative research in suggesting that several intrapersonal, psychosocial and relational factors contribute towards adolescent sexting.

2.4.1. Relational dynamics, sexual exploration and gender politics. According to some researchers, sexting occurs within various youth relational scenarios: 1) as an exchange between romantic partners, 2) between partners but shared with others outside of the relationship, or 3) between two people not necessarily in a relationship but where at least one of them wants to be (Hinduja & Patchin, 2008; Lenhart, 2009). Sexting is often used to initiate sexual activity, as an experimental phase prior to having sexual intercourse, and as a way to improve current sexual relationships. It may take place outside of consensual, committed relationships: 21% of girls and 39% of boys sexted someone whom they *wanted to hook up with* and 15% of adolescents sexted someone whom they *knew only online* (NCPTUP, 2008).

Some suggest that sexting has become normalised among adolescents' wider socio-sexual practices and reflects their changing sexual and technological attitudes (Lipkins, Levy, & Jerabkova, 2009; Ringrose, Gill, Livingstone, & Harvey, 2012). Others suggest that sexting results from the trend of non-exclusive, casual, short-term "hook ups", which allow for physical intimacy without risking emotional involvement (Glenn & Marquardt, 2001; Manning, Gjordan, & Longmore, 2006).

The Internet and sexting practices have been argued to provide some positive opportunities for adolescent boys and girls to explore and define their sexuality (Stern, 2002) and to experience relationships online (Subramanyam, Greenfield, & Tynes, 2004). Girls in particular have been found to readily initiate romantic relationships (Šmahel & Subrahmanyam, 2007), articulate intense emotion, build social self-confidence (Roban, 2002), express femininity (Bosch, 2011) and experience relational agency online, all of which could often translate into assertiveness in their offline relationships (Brown & L'Engle, 2009).

Sexting furthermore seems to fulfil a role in relationship formation and sexuality exploration, e.g., "tweens" (i.e. pre-teenagers) report that sexting takes place *instead of* actual sexual activity, and is considered safer than real sex (Lenhart, 2009). Sexting has been equated to a relatively innocuous high in that it evades the usual sexual risk consequences (Chalfen, 2009). This sexting-as-safer-than-sex assertion has, however, not been empirically validated and presents a deficit in the existing research.

Adolescents' sexting tendencies seem influenced by social norms and peer pressure (Dake, Price, Maziarz, & Ward, 2012). The NSPCC participants reported that much of the pressure for sexual communication comes from their friends and classmates. This dispels the myth of the stranger luring children over the Internet; rather, peers seem to be the most

influential solicitors of sexual content. In one study, 51% of girls reported sexting as a result of pressure from their boyfriends, whereas only 18% of boys said they sexted due to pressure from a girlfriend (NCPTUP, 2008). Further reasons for sexting among girls in this study included: To be “fun and flirtatious” (66%), to give their partners a “sexy present” (52%) and “as a joke” (40%).

Bailey and Hanna (2011) have argued that the mass media compels adolescents to prescribe to specific notions of masculinity, femininity and sexuality if they wish to achieve social recognition. Further academic opinion suggests that in particular, the sexualisation of girls leads to them being valued on the basis of their sexual appeal (American Psychological Association, 2010), and attractiveness (Stern, 2007), all of which illuminates the gendered patterns around sexting (Dake, Price, Maziarz, & Ward, 2012). Chalfen (2009) emphasises the intense visual culture in which teenagers exist, one in which a premium is placed on beauty and glamour.

Ringrose, Gill, Livingstone and Harvey (2012) argue that boys are under pressure to embody the Western masculine constructs of courage, wealth and sexual prowess if they seek high social status. Collecting images of naked girls is a relational commodity directly tied to a boy's position among his peer hierarchy, therefore, for a boy to increase his popularity, one of the simplest ways to do so is to secure naked images of girls, or to report (even falsely) on sexual activity. Levy (2005) suggests that for girls to be popular they must disavow their sexuality and find a middle ground between being sexy (and therefore desirable) but not too sexy (and therefore “slutty”).

Outside of the sexual pressure and expectations imposed on girls by boys and the mass media, there seems to be very little space for young females to independently construct what their sexuality does or does not mean *for them*. As Pipher (1994) claims “we raise our daughters to value themselves as whole people, then the media reduces them to bodies” (Pipher, 1994, p. 206). Girls' sexual experiences, desires and identities seem to be secondary to that of boys, e.g., where boys are almost *expected* to solicit oral sex for their pleasure; very little dialogue happens around what the *girl's* sexual needs may be (Pipher, 1994; Levy, 2005). Ringrose, Gill, Livingstone and Harvey (2012) imply that because culturally speaking boys “own” girls' bodies, sexism is normalised within the online/offline contexts of adolescents' social lives. In essence, boys importune pictures from girls, girls supply them, and boys collect and trade them with other boys. Whilst boys pressure girls to send them sexual messages and images, and girls comply to please their partners (Cox Communications, 2009), the irony is that the majority of boys would not consider a girl who sexted to be “good

girlfriend material” (NCPTUP, 2008). In one study, girls disclosed that boys had asked them to write the boy’s name on a certain body part e.g. their cleavage, and to send this image to the boy, denoting a type of ownership. The authors aptly refer to this practice as the *technologically mediated harassment of girls* (Ringrose, Gill, Livingstone, & Harvey, 2012). The trend of “exposure” also came to light in the above study. Boys spread rumours about girls’ sexual activities or sent compromising images of girls to others, whether the girls had been involved in a sexual act or not. This highlighted a “damned if you do, damned if you don’t” mentality, where even if girls *don’t*, boys can still very publically say they *did*.

Girls may be resigned to the harassment created by sexting, accepting it as just another part of an already sexist culture (Ringrose, Gill, Livingstone, & Harvey, 2012). They are further unlikely to talk to a teacher or parent about it (Phippen, 2009). Girls *will not tell* and boys *know* this. Girls fear being labelled a “snitch” if they report harassment and ultimately develop profound coping skills with which to deal with matters on their own, including building resilience and positive self-esteem even in the face of rumours and lies about their sexual activity (Phippen, 2012). As far as sexting bystanders go, even if they disagree with it, male and female adolescents will generally go along with viewing and forwarding sexted images, relieved that at least it is not happening to them.

Sexting has also been seen as a method of objectifying women, in that the sexually charged images are usually *of* women and typically forwarded *by* men (Walker, Sanci, & Temple-Smith, 2011). However, girls become complicit in their own objectification when they self-generate sexualised pictures (Brown & L’Engle, 2009; Levy, 2005) and subsequently learn to treat themselves as objects of desire to be valued for their appearance (APA, 2010). Karaian (2012), however, takes exception to the dominant discourse that teenage girls are sexually self-exploiting and the victims of a hypersexed culture. Rather, she insists that laws around sexting actually disavow girls of their right to sexual self-expression, thereby reinforcing their status as sexual objects. Both Karaian and Hasinoff (2010) suggest that rather than being disempowering, sexting enables girls to “own” their sexuality and femininity, giving them agency in sexual expression.

2.4.2 Technology and merged online/offline worlds. The pervasive and autonomous use of technology, where the Internet and cell phones have become critical socialisation tools, has thoroughly impacted on adolescent communication (Campbell, 2005; Louw & Louw, 2007). Cameras and cell phones are embedded in everyday life and used by adolescents constantly to constitute identity (Chalfen, 2009). It is precisely because adolescents have access to infinite, largely unsupervised digital spaces, that sexting is difficult to regulate and

monitor (Manzo, 2009). Today's adolescents need not negotiate their autonomy from their parents, rendering them quite insulated from any parental involvement and interference (Ling, 2007). This independence and tendency to expose every aspect of their lives online (Phippen, 2009) may enable adolescents to ignore the possible emotional and psychosocial risks of sexting (Mitchell, Finkelhor, Jones, & Wolak, 2012).

Adolescent practices “commute across online and offline borders, mixing communication from different sources and media, building a coherent experience that fuses what was once separate” (Ringrose, Gill, Livingstone, & Harvey, 2012, p. 15). Some adolescents make a distinction between *posting* a sexted image of themselves or someone else to a social media site, versus *sending* an image via their cell phones (Strassberg, McKinnon, Sustaíta, & Rullo, 2012). Whilst empirically unsubstantiated, the reasoning follows that teenagers may consider sexting via personal cell phones as a private and safe form of communication. Boys in the NSPCC (2012) sample also seemed to make a distinction between showing their friends a sexted image in person, versus actually disseminating the image digitally (i.e. mass forwarding it) – with the former regarded as innocent and acceptable behaviour. These few examples illustrate the nuances of adolescent sexting that may not always be evident to adults.

2.4.3 Demographic and predisposing psychosocial factors. Livingstone and Görzig (in press) argue that where some youth experience sexting as a positive form of intimate self-expression, others are disturbed by it. They suggest that those adolescents who seem more “at risk” of the negative consequences are likely to be psychologically or circumstantially predisposed to vulnerability in the first place. Sexting balances along a fine line of freedom of expression versus risk of exploitation (Badenhorst, 2011; Ringrose, Gill, Livingstone, & Harvey, 2012). Although some exposure to online and offline risk may build essential coping skills in young people (Coleman & Hagell, 2007), attention should be paid to the type of risk that adolescents are engaging in, and whether this inclines them to other risks, for example, does exposure to pornography increase the likelihood of sexting, and does sexting result in a greater risk of cyberbullying? The existing literature seems silent on the issue (Ringrose, Gill, Livingstone, & Harvey, 2012).

Several predisposing emotional health behaviours could increase the likelihood of teenagers' sexting, including previous suicide attempts, having experienced cyberbullying, being bullied directly, being physically hurt by a boyfriend or girlfriend, or experiencing depression indicators of sadness and hopelessness for more than two weeks within the

previous year. Increased time spent sending general text messages was also a positive identifier for students most likely to engage in sexting (Dake, Price, Maziarz, & Ward, 2012).

Race and social class also seem to impact on the conceptualisation of sexting and Karaian (2012) asserts that legislation which seeks to criminalise sexting is mostly formulated under the pretext of protecting white, middle- to upper-class, heterosexual girls from sexual predators *and* themselves. Hasinoff (2010) argues that it is precisely these girls, who are expected to set the idealised standard of sexuality, whose sexual transgressions create “juvenioia”. This refers to the paranoia adults experience around the consequences of adolescent risk behaviour, with the current fears being around their use of online digital media (Mitchell, Finkelhor, Jones, & Wolak, 2012). Chigona and Chigona (2008) consider this moral panic to be a reaction to perceived loss of control by parents and adults.

2.4.4 Mass media and hypersexual norms. Mass media, sophisticated personal technology and the proliferation of pornography seem to be significant factors in understanding why adolescents sext. The “sexualisation of youth culture” refers to the Western world becoming saturated by sexual representations (Ringrose, Gill, Livingstone, & Harvey, 2012). Pornography, celebrity porn stars and lap dancing classes have all made their way into the mainstream entertainment industry (Levy, 2005). Research suggests that youth have become desensitised to sexually explicit material (Shafron-Perez 2009; Walker, Sanci, & Temple-Smith, 2011) and Barham (2004) claims that “nothing is more responsible for the exploding volume of sex that kids see, hear and talk about than the Internet” (2004, p. 152). Abroad, 90% of young people have been accidentally exposed to pornographic images on the Internet (Lounge, 2006). It seems that exposure to sexual content is commonplace for South African teenagers too; according to Basson and Chetty (2006), in a province-wide survey of 943 adolescents (13-17 years old), 64% of learners had been exposed to pornographic images on the Internet (74% of boys and 52% of girls), mostly accidentally.

Pornography has a significant impact on young people’s social interaction, sexual activity and emotional development (Greenfield, 2004). Premature sexualisation is considered harmful to adolescents (Papadopoulos, 2010) and negative consequences could include an increase in number of sexual partners and high risk behaviours, greater acceptance of sexual promiscuity, less progressive gender role attitudes, sexual harassment by males, sexual uncertainty, uncommitted sexual exploration and earlier oral sex and sexual debut for both boys and girls (Braun-Courville & Rojas, 2009; Brown & L’Engle, 2009; Lo & Wei, 2005; Moreno, Parks, Zimmernan, Brito, & Christakis, 2009b; Peter & Valkenberg, 2006).

The NSPCC (2012) study discusses the influence of commercially produced pornographic images and adolescent-generated pictures on adolescent sexting. Boys who traded commercial pornographic images were deemed “desperate” and “inexperienced”. Higher status was given to boys who could solicit photographs from girls who were known to them; especially if the girl in question would not normally consider doing such a thing.

Adolescents’ hypersexualised culture seems to be partly fuelled by their “sexual media diet” (SMD); this refers to the unprecedented levels of sexual content to which they are exposed via television, movies, music, magazines and the Internet. SMD has been negatively related to adolescents’ sexual attitudes and behaviours; teenagers with higher SMD’s are twice as likely to be sexually active than low SMD consumers, with greater permissive attitudes to sexual experimentation (Pardun, L’Engel, & Brown, 2005). The question of whether young people have become so desensitised to erotic images as a result of their rich SMD’s, that sexting pictures of themselves seems to be inconsequential, presents a critical gap in the prevailing academic literature.

Some liberal thinkers suggest that sexting is a new form of previous youth practices around emerging sexuality, and that adolescents have always used technology in some way to express their sexuality (Chalfen, 2009; Hand, Chung, & Peters, 2009; Muscari, 2009). Contrary to media sources which seem to fuel unfounded fears around sexting, some researchers have dubbed sexting “peer-to-peer porn” (Funnell, 2011), suggesting it is a relatively harmless modern day version of “you show me yours and I’ll show you mine”.

2.5 Risks and Consequences

Dissension exists regarding the actual risks presented by sexting. Some academics argue that it is a dangerous phenomenon with significant psychosocial, educational and legal risks (Chalfen, 2009; Katzman, 2010); however, others see it as a relatively normal extension of adolescent sexuality (Walker, Sanci, & Temple-Smith, 2011).

2.5.1 Psychosocial and sexual consequences. Negative consequences of sexting can include humiliation, shame, friendship exclusion, sexual solicitation, increased risk of online sexual victimisation, scholastic suspension, school transfer, depression, anxiety and in extreme cases, suicide (Brown & L’Engle, 2009; Chalfen, 2009; O’Keefe & Clarke-Pearson, 2011). It is the mass-forwarding and uploading potential of sexted images that seems to render adolescents most at risk of exploitation; as the number of sexting recipients increases, compounding the psychosocial risks to the person pictured, so do the legal risks for those who forward or retain the image (Strassberg, McKinnon, Sustaíta, & Rullo, 2012). Sexting images “gone viral” (i.e. being widely disseminated on the World Wide Web) could further

the market for child pornography (Shafron-Perez, 2009). Some studies have also found a link between sexting and sexual violence where girls were coerced into sending naked pictures (Flood, 2007; Powell, 2009).

Sexting seems to present risks regarding adolescents' actual sexual behaviour in that some youth become more sexually aggressive than they would be in real life scenarios. According to the NCPTUP (2008) study, 38% percent of adolescents and 40% of young adults felt that sexting *increased the likelihood* of hooking up. Furthermore, 29% of adolescents and 24% of young adults felt that those who shared sexually suggestive content with one another were *expected* to hook up. In her 2011 study of 468 undergraduate students at a North American university (*M* age = 20.59 years old), Henderson found that the total number of sexual partners and the number of oral sex incidents (performed) was higher amongst those who sexted. Sexting and sexual activity therefore seem to be at least tenuously linked among young adults; however, the direction of effects is unclear. Unfortunately, evidence around similar adolescent links is unavailable.

2.5.2 Future impact: Educational and employment prospects. Adolescents seem unaware or unconcerned that their online interactions create a “digital footprint”, likely to exist in cyberspace into perpetuity (O’Keefe & Clarke-Pearson, 2011; Walker, Sanci, & Temple-Smith, 2011). One’s sexting history could therefore have unanticipated negative implications for study or career opportunities, as tertiary educational institutions and employers are known to screen their prospective candidates’ online histories before making a decision about placement (Shafron-Perez, 2009).

2.6 Education and Intervention Strategies

2.6.1 Sources of education. Phippen (2009) notes that despite the negative consequences around sexting, only a minority of young people (27%) feel that they need more education regarding the risks. Furthermore, only 24% of young people in the abovementioned study would approach a teacher, and 70% a friend, for advice if they had a negative sexting experience.

Day (2010) proposes that young people would benefit from a deeper sense of self-respect and increased resistance to peer and cultural pressure. He also suggests that parents be encouraged to engage with their teenagers around morality, respect, sexual identity, and gender relations. Other educational propositions include building skills in ethical sexual intimacy (Carmody, 2009; Katzman, 2010; Muscari, 2009). In one study where teenagers were taught relational, communication and conflict resolution skills they were 77% more

likely to consider the potential negative consequences before sexting (Mitchell, Finkelhor, Jones, & Wolak, 2012).

Education around media literacy, and developing the capacity to think critically about the content and themes portrayed in the media, have also been presented as possible sexting interventions (Batchelor, Kitzinger, & Burtney, 2004). Rather than perpetuating the silence around sexting, stakeholders could educate youth about the risks, particularly around the unsolicited distribution of images and the violation of others' privacy (Schmitz & Siry, 2011).

2.6.2 Legal and criminal consequences. The rapidly changing technological landscape has created significant problems and confusion for the criminal justice system regarding sexting (Walker & Moak, 2010). The terminology around sexting is also ambiguous and role players would do well to clarify consensual versus non-consensual sexting, and to take relational contexts into consideration before embarking on punitive or legal action against adolescents, with laws that were originally designed to keep them safe from adult sexual predators (Chalfen, 2009; Hinduja & Patchin, 2008; Boucek, 2009). These authors further argue that formal law should not be regarded as a panacea for sexting incidents, as teenagers tend not to be deterred by rules.

Many adolescents seem unaware of the criminal implications of sexting (Chalfen, 2009). In the USA, policy- and law makers have developed legal measures with which to protect the victims of sexting, discipline the offenders and curb future offenses (Zirkel, 2009). These include remanding teenagers to counselling, education and diversion programmes or community service, imposing penalties and fines, and arresting and charging teens with the possession and distribution of child pornography (Shafron-Perez, 2009). In some North American states minors currently awaiting sentencing for sexting, if found guilty, will be added to the Sexual Offenders' Register (SOR). Day (2010) argues that this course of action does an injustice to the victim, offender and community, ultimately diluting the seriousness of the SOR by adding underage sextors to it.

In South Africa, Section 19 of the Criminal Law (Sexual Offences and Related Matters) Amendment Act of 2007 provides similar guidelines (Badenhorst, 2011). A recent ruling by a South African judge declared that consensual sex between adolescents aged 12 – 16 years old can no longer be criminalised. In spite of that protection under the law, were an adolescent (under the age of 18 years) to *film* themselves engaging in such a consensual sexual act with another adolescent, they could still be charged with the creation, possession and dissemination of child pornography, and have their name added to the SOR. In fact, even

minors who know of such content on their friends' cell phones are compelled to report this under the same Act, or risk being fined, imprisoned or both. Badenhorst cautions that these austere measures may be inappropriate for minors and favours the Child Justice Act (CJA) (Act 75 of 2008) which creates a separate criminal justice system for children. Any child who commits a criminal offence (including cyberbullying and sexting) should be dealt with in terms of the CJA (Beger, Sinha, & Pawelczyk, 2012).

Some suggest that sexting incidents are best handled outside the legal system where minors are treated as special cases (Lenhart, 2009). Day (2010) proposes a civil remedy where parents are accountable for their children's actions – specifically where online content is sent or shared maliciously. He suggests that if parents are held liable for their adolescents' sexting activity they may monitor their children's online behaviour more closely.

This grey area of intervention calls for legislative change and a comprehensive plan for dealing with juvenile e-crimes effectively (McGrath, 2009; Powell, 2009). As a first line of defence, there is also a need for ongoing prevention education for youth, teachers and parents, as well as sound sexting policies within schools (Heath, Brooks, Cleaver, & Ireland, 2009; Walker, Sanci, & Temple-Smith, 2011).

2.6.3 Adolescent agency. Youth must be given a voice in designing intervention programmes around sexting (Hinduja & Patchin, 2008). This is particularly important as adult versus adolescent discourses around online technology are antithetical; where adults see risk, young people identify self-determination and sociability (Campbell, 2006) and want to decide for themselves whether to sext or not (Cox Communications, 2009). Adolescents in one study had specific opinions about what punishment should fit the sexting crime: 21% felt there should be *no consequence*; other suggestions included community service (25%), the removal of phone privileges (8%), school suspension or expulsion (4%), jail (5%) and pornography charges (2%) (Strassberg, McKinnon, Sustaíta, & Rullo, 2012).

2.7 The South African (SA) Context

As a developing nation, much of the Western research around adolescent sexting may not apply to our youth. That said, what we do know is that the proportion of sexually active adolescents in SA has increased since 1990, with a large number of learners at risk for pregnancy and sexually transmitted diseases or HIV (Flisher, Reddy, Muller, & Lombard, 2003). The SA National Youth Risk Behaviour Survey of 2008 reported that 38% of Grade 8 – 11 learners had ever had sex (Reddy et al., 2010).

SA researchers have studied relationship formation and compulsion on MXit (Bothma, 2011; Swanepoel & Thomas, 2011) and young women's sexuality construction on

Facebook (Bosch, 2011); however, there has been no locally-generated empirical research around the role of sexting within adolescent relationships. Local media sources have reported anecdotal incidents of sexting among SA youth; however, the lack of Afro-centric research compels them to use international statistics to contextualise the issue. Whilst the TIME/Qualcomm Mobility Poll (2012), canvassed adult respondents from eight countries and shed light on the domestic context (45% of South Africans between the ages of 18 - 35 years have sent a NSNI), the statistics related to the under-18 population are unknown.

Where cell phone ownership in SA used to be the domain of the privileged, today it is essential to adolescent culture and communication across all social groups (Bosch, 2011). According to the UNICEF report of 2012, SA teenagers and youth are the first adopters of mobile technology, with 72% of 15-24 year olds owning a cell phone. The UNICEF authors also note a significant digital divide regarding technology ownership, access, and use, divided by race, socioeconomics, and geography. They found that the primary risks facing SA adolescents are talking to and meeting strangers, cyberbullying, and sexting. Their report calls for urgent legislation and programmes in information and communication technology development and education, to meet the needs of SA's newly connected digital citizens (Beger, Sinha, & Pawelczyk, 2012).

Aside from Badenhorst's (2011) legal framework for sexting in SA, a comprehensive database search did not reveal a single academic article related to the prevalence of sexting among adolescents or young adults in this country. Chalfen (2009) suggests that sexting may not receive significant academic attention because home-based technologies and media usage may not be considered legitimate research topics. However, it seems that precisely because the use of home-based media is so inexhaustible, and the psychosocial and legal risks around sexting so far-reaching, that this topic deserves empirical attention.

Considering the above trends of increased sexual activity and prolific cell phone usage among adolescents, it is likely that sexting affects young people across population groups in SA. Therefore, sexting as it relates to youth sexuality is currently an important and insufficiently researched area of study in this country.

2.8 Conclusion

As this chapter has presented, sexting is a relevant and controversial youth issue. Whilst researchers dissent on the prevalence of sexting, and the reasons for engaging in the practice, gender, age and a sex-saturated society seem to be held as influencing factors. Ongoing education, intervention and research around sexting are needed, especially within the South African context.

CHAPTER 3

METHOD

This chapter will explore the methodological foundations of the present study, attending to research design, sample, measures, procedures, data analysis and ethical considerations.

3.1 Research Aims

This study endeavoured to investigate the prevalence and characteristics of sexting among a sample of high school learners, undergraduate university students and adults in the general population. Particular attention was paid to the attitudes, beliefs, risks and consequences around sexting, as well as education aspects. A further aim of the research was to investigate gender differences and the possible relationship between sexting and actual sexual behaviour. Specifically, the adolescent survey asked about technology usage and preferences, attitudes toward sexting, reasons for and behaviours around sexting, as well as input regarding interventions. Similarly, the adult survey was formulated around attitudes toward sexting; sexting behaviours, gendered trends, own teenage sexting behaviour and assumptions about current teenage sexting. The following hypotheses were also tested:

- H^1 : Sexting is more frequent among older adolescents than among younger adolescents.
- H^2 : Adolescent boys are more likely than adolescent girls to sext someone known to them only online.
- H^3 : Sexting is correlated to actual sexual behaviour (ASB) such as performing or receiving oral sex (OS), or engaging in anal (AS) and / or vaginal sex (VS).

3.2 Study Design

As little is known about sexting in South Africa this study was exploratory and descriptive in nature. As such, due attention was given to the existing distribution of variables, without regarding causal factors or manipulating the research environment (Last, 1998). This enabled naturally occurring behaviour and attitudes around sexting to be gathered and allowed the demonstration of associations or relationships between variables. Bickman and Rog (1998) propose that descriptive studies can answer questions such as “what is” or “what was” within a particular sample. Descriptive studies are often inexpensive and efficient to use as they make use of data that are already available, however, they are somewhat limited in that causal inferences may be drawn where none exist (Grimes & Schulz, 2002).

The study was furthermore geographically specific and cross-sectional in nature, as data were collected over a single point in time for each sample. The benefits of this approach include reduced time spent gathering data and lower financial costs (Heath, Brooks, Cleaver, & Ireland, 2009).

Ringrose, Gill, Livingstone and Harvey (2012) argue that quantitative research alone cannot offer insight into the complex technologically mediated sexual expression that underlies sexting. They claim that there is a disconnect between what researchers are studying and how young people are actually experiencing the phenomenon in their daily lives; in fact, most young people do not call the act “sexting” – this is a construct defined by adults in an attempt to add some shape and texture to the act. The current study design was primarily quantitative where data were gathered to extract the main concepts (Fouche & de Vos, 1998; Mouton & Marais, 1990). Limited qualitative data was collected in order to corroborate and enrich the quantitative findings, particularly around gender differences. Whilst not a true mixed method study, the small amount of qualitative data did allow for greater insight into the topic (Hanson, Creswell, Clark, Petska, & Creswell, 2005).

3.3 Sample

3.3.1 High school learners. The Western Cape Education Department (WCED) considered the nature of the study more appropriate for university students, and as such denied access to public school learners for this study. Therefore, contact was made with principals, Life Orientation (LO) teachers and school counsellors at 25 private secondary schools in the Cape Town area. After preliminary information sharing with 8 schools, 4 independent schools elected to participate. The schools were relatively diverse in terms of size, ethos and catchment areas and were located within 3 geographically distinct urban areas. All schools served predominantly middle-to-upper socioeconomic status learners.

Each school was afforded flexibility in allocating a suitable number of research participants. Two schools allowed all their Grade 9, 10 and 11 learners to participate (School A, $N = 212$; School B, $N = 72$); one school provided one class each from Grades 9, 10 and 11 (School C, $N = 46$), and the fourth school provided one class each from Grades 8 – 12 (School D, $N = 121$). In total, 451 secondary school learners participated.

3.3.2 University undergraduate students. In targeting the second sample, information regarding the online Sexting Survey was emailed to undergraduate psychology students at UCT. Participation was voluntary and in exchange students were awarded 1 point towards the Student Research Participation Programme (SRPP). Incidentally, the SRPP provides alternatives for students who do not wish to participate in research. The 319 UCT

students who completed the online survey comprised the majority of the adult sample (79.3%).

3.3.3 General adult population. In order to further broaden the sample, adults in the general population were invited to participate via online social media (OSM) platforms, i.e. Facebook (www.facebook.com/sexting_survey), Twitter (@sexting_survey) and LinkedIn. These participants ($N = 83$) comprised the third snowball sample. Strydom and de Vos (1998) claim that snowball sampling is a valuable technique when investigating a relatively new phenomenon, as it allows for greater access to a particular sample. This method of sampling did, however, present some constraints. As many participants shared the online survey link with others via OSM, it was impossible to accurately define the demographics or characteristics of this sample. Researchers have cautioned that Internet-based research tools are particularly susceptible to this issue of identification verification; in other words it is impossible to validate the identity and demographic data supplied by the participants (Heath, Brooks, Cleaver, & Ireland, 2009).

3.3.4 Inclusion criteria. Adolescent respondents fell within the Grade 8 – 12 range. Adult participants had to be at least 18 years old with access to the Internet. Participants had to be able to complete the survey in English.

The age and gender distribution of all participants is presented in Table 2.

Table 2
Distribution of Age and Gender of Participants ($N = 852$)

<i>Age</i>	Adolescents ($N = 451$)	UCT Students ($N = 319$)	Adults ($N = 82$)
Mean	16.02	20.24	31.2
Minimum	12	18	18
Maximum	19	39	64
Standard Deviation	1.49	2.37	8.36
<i>Gender</i>			
Male	228 (50.6%)	82 (25.7%)	25 (30.5%)
Female	223 (49.2%)	237 (74.3%)	57 (69.5%)

3.4 Measures

As sexting is a relatively new area of research, no reliable or validated measures currently exist (Henderson, 2011). The Sexting Survey (separate forms for adolescents and adults) was developed by drawing from the designs of similar studies (e.g. Cohn, 2009; Roban, 2002). See Appendices A and B for copies of the surveys.

The initial surveys were piloted with small groups of the respective samples (three adolescents and five adults). Feedback regarding the online and paper layouts, item

construction, user-friendliness and concerns about confidentiality and sensitivity of information was gathered, which informed the final versions.

A self-report questionnaire with anonymous, open and closed questions was utilised which allowed for quick, comparable data. There is some contention about the efficacy of self-report questionnaires. Some have found that such questionnaires are limiting in that young people may not feel comfortable disclosing highly personal behaviour such as sexting (Mitchell, Finkelhor, Jones, & Wolak, 2012). Others suggest that computer-assisted self-interviewing (CASI) instruments are appropriate for the exploration of sensitive issues as they reduce social desirability and enhance privacy and anonymity (Bergman, 2008). CASI are now the most popular means of data collection due to the widespread use of the Internet in research (de Leeuw, Hox, & Kef, 2003). Benefits of Internet-based surveys include preserving privacy whilst encouraging openness (Joinson, 2005) and being completed at a time and place convenient for the participants (Heath, Brooks, Cleaver, & Ireland, 2009).

Respondents in the two adult samples were initially contacted via the Internet with the survey link included in the invitation. Therefore, for these groups this self-administered online version proved most convenient.

School C opted for the electronic survey and as such 46 learners completed the questionnaire online. The other three schools requested hard copies which were packaged and delivered according to classes.

Apart from basic demographic information (age, gender and grade), the adolescent survey asked participants limited dichotomous questions („yes’ or „no’ responses) or to respond to statements on a 5 point Likert-type scale (Fouché, 1998). This data was captured to a spreadsheet where answers were coded, e.g. „yes=1’ and „no=2’. In the case of the Strongly Agree to Strongly Disagree options, these responses were allocated a 1 to 5 rating, allowing for the frequency and aggregation of responses.

Questions in the adolescent survey were arranged around the following themes: Technology usage, attitudes, reasons and behaviours around sexting, and ideas about education and intervention. The adult survey was formulated around attitude, own sexting behaviours, gendered trends, own teenage sexting behaviour and assumptions about current teenage sexting. Limited qualitative responses were invited on the adolescent survey with the intention of allowing learners to express opinions over and above their yes / no responses.

3.5 Procedure

Once the four schools had confirmed their participation, parents and guardians were informed in writing of the details around students’ participation and the process of passive

informed consent. Parents who did not want their child to participate were asked to complete a form and return it to school by a specific date. Where reply slips were not received it was assumed that learners had permission to participate. One parent in School B withdrew their child from the study; however, passive informed consent was obtained for all other adolescents.

The adolescent survey was administered during a single LO lesson at each school. For the sake of convenience LO teachers in three of the schools opted to administer the survey themselves, with the researcher administering at the 4th school.

Prior to commencement, learners were informed about the nature of the questionnaire, the broader context of the study, how they were to be involved and the uses to which their involvement would be put (Heath, Brooks, Cleaver, & Ireland, 2009). They were informed that they could opt out of participating, ask the researcher or administrator questions, omit question items and discontinue the survey at any time. All learners chose to participate and written informed assent was obtained; these forms were subsequently kept securely and separately from the completed questionnaires.

To mitigate any discomfort arising from the sensitive nature of the questionnaire, the learners were provided with the contact details of Life Line, a telephonic crisis counselling service, and encouraged to speak to their school counsellors in the event of distress.

In the case of the adult participants, written consent in the form of a compulsory checkbox was included in the survey. Participants were also provided with the contact details of UCT Student Wellness and Life Line.

Written instructions were provided in order to standardise the process, reduce researcher effects and increase consistency in survey administration (see Appendix C). To ensure privacy, learners were seated so that they were unable to see one another's work and most completed the survey within 20 minutes.

Peter and Valkenberg (2011) advocate the use of “forgiving introductions” to reduce intrusiveness in questions reflecting a social desirability bias. This type of introduction was used to set the context for the particularly sensitive nature of the survey (see Figure 1).

Some young people may never have sexted and others may be regular sexters. Everyone is likely to have different opinions and beliefs about this activity. This questionnaire is about what *you* think. There are no right or wrong answers – it's all about your ideas and opinions. Remember that you can choose to skip any questions as you go along and that your answers will be treated with the utmost confidentiality. Please don't even put your name on this questionnaire – we want you to remain anonymous.

Figure 1: This figure gives an example of a “forgiving introduction” used in the survey.

3.6 Data Analysis

Quantitative data were analysed using the Statistical Package for the Social Sciences (SPSS) version 20 (2011). Descriptive data took the form of frequencies and percentages of survey items. Inferential analyses employed chi-square analyses with 95% confidence intervals to examine the strength of the relationship between particular variables. Data from all participating schools were aggregated in order to minimise the likelihood of the identification of specific schools. Where qualitative comments were included, this was done to augment the quantitative findings, rather than to offer any type of formal qualitative analysis.

Although two distinct adult samples were surveyed, data from the university student and general adult groups were combined for the purpose of analyses. This was to allow for ease of comparison between overall adolescent and adult groups. As sexting is legal for anyone over the age of 18, there was no reason to keep data from the two adult samples separate, particularly as both samples were quite small.

3.7 Ethical Considerations

Ethical approval for the study was granted by the Research Ethics Committee of the Department of Psychology at UCT. School permission, parental informed consent and learner assent were obtained for adolescent participants. Informed consent was obtained for all adult respondents.

The voluntary nature of participation was emphasised and care was taken to explain and ensure absolute confidentiality and anonymity. Heath, Brooks, Cleaver and Ireland (2009) define anonymity as the protection of the specific identities of individuals, and confidentiality as the assurance not to pass on any information about an individual. While the participants' responses were used and reported on in the form of data, the specific identifiers of the participants remain undisclosed in this study.

In keeping with the stakeholders' rights to access information, the final results will be made available to the principals of the four participating schools, as well as to other interested parties and participants.

3.8 Conclusion

This chapter provided an overview of the study's methodological formulation, elucidating the design and procedures, as well as justifying the use of measures. The process of identifying and contacting the desired sample populations was explained, with the final use of one adolescent and two combined adult samples rationalised. A description of the data analysis was provided and ethical issues, with an emphasis on the voluntary nature of

participation, were explored. In Chapter 4 the focus will shift to reporting on the results generated from the Sexting Surveys.

CHAPTER 4 RESULTS

In this chapter salient findings of the Sexting Surveys will be presented. Specifically, frequencies and results of chi-square tests of the following hypotheses will be provided:

- H^1 : Sexting is more frequent among older adolescents than among younger adolescents.
- H^2 : Adolescent boys are more likely than adolescent girls to sext someone known to them only online.
- H^3 : Sexting is related to actual sexual behaviour (ASB) such as performing or receiving oral sex (OS), or engaging in anal (AS) and/or vaginal sex (VS).

Furthermore, attention will be given to the themes of technology use, attitudes, prevalence and characteristics of sexting, sexual demographics and gender expectations. Lastly the results around risks, consequences and education will be presented. Chi-square statistical tests were used with *p-values* of less than .05 considered significant.

4.1 Autonomous Technology Use

The autonomous use of cell phones and Internet-enabled devices, with little parental monitoring thereof, is part of what enables adolescents to sext. Cell phone ownership was widespread among this adolescent sample with 94.3% having Internet-enabled cell phones.

Between 91- 93% of teenagers reported that their parents neither checked their incoming or outgoing text messages, nor the photos or videos that they stored on their cell phones. Furthermore, 88% of learners claimed that their parents did not supervise or monitor their Internet activity in any way. Just 23 teenagers (5%) reported that their parents actively check their online movement.

4.2 The Prevalence and Characteristics of Sexting

4.2.1 Adolescent and adult sexting trends. The results of the participants' personal sexting behaviours are displayed in Table 3.

Table 3
Sexting Behaviour of Adolescent and Adult Respondents

	Adolescents (%)	Adults (%)
Sent SSTM ^a to someone in relationship with.	46	55
Sent SSTM to someone they wanted to hook up with.	43	27
Sent SSTM to someone knew only online.	14	14
Sent NSNI ^b to someone in relationship with.	20	36
Sent NSNI to someone they wanted to hook up with.	17	11
Sent NSNI to someone knew only online.	5	6
Experienced regret about sending a sext.	27	-
Sent a sext in the preceding month.	17	-

^aSSTM: Sexually suggestive text messages & ^bNSNI: Nude / semi-nude images

Twenty-three percent of adolescents reported that sexting happened “all the time” in their schools. They were split on whether adults made too big a fuss of sexting – 41% thought they were over-reacting, whilst 38% felt that the concern was warranted. Interestingly, 57% of adolescents thought that parents and teachers had “no idea” how much sexting was in fact going on among adolescents and 45% felt that it was quite normal for young people to sext because they are interested in sex and relationships.

The results suggest similarities between the adolescent and adult respondents' actual sexting activities. Nearly 46% of adolescents and 55% of adults sexted (SSTM) people they were in a committed relationship with. The proportion of adolescent and adults who had sent a NSNI to people known only to them online was similar (5% and 6% respectively, translating into 23 adolescents and 24 adults in the sample).

Adult participants were asked to reflect on any sexting behaviour that they might have engaged in when they were adolescents. Seventy-eight percent reported feeling little pressure to sext as a teenager. Some felt that there was media pressure to sext when they were teenagers (59%) and that sexting was quite common when they were high school learners (46%). Nearly 31% of respondents reported that they had sexted as adolescents and of those adults who did *not* have cell phones in high school, 26% said that they probably *would* have sexted, had they had the technology.

Some adult respondents were open to the idea of sending (29%) and receiving (28%) NSNIs from their romantic partners. There was some indication of pressure to sext with 35% reporting that SSTMs were expected within relationships and 34% reporting that NSNIs were

expected within the same relational context. However, 56% felt that sexting did not happen regularly among their group of friends.

Even though some adults might not engage in sexting, it seems that NSNIs can still find their way to one's cell phone without seeking it out; 30% of the adult group reported that they had received a NSNI from someone without having requested or solicited it. The majority of adult participants were also in agreement (69%) that people have always shared naked images or sexually suggestive material with others, now they just happen to do it via their cell phones.

In this particular adult cohort, it was evident that *when they were teenagers*, 64% were aware of the risks around sexting, 60% thought their parents had no idea about their online activity and 69% would have felt too uncomfortable to talk to their parents had a sexting incident arisen. These adult respondents further reported that as adolescents, girls experienced more sexting pressure than boys (57% and 22% respectively) and that they would have liked more information around sexting at the time (42%).

4.2.2 Age effect. In testing Hypothesis 1, chi-square analysis was used to investigate whether older adolescents (16-19 years old) are more likely to engage in various forms of sexting (NSNI and SSTM), than the younger cohort (12-15 years old). Relevant results are presented in Tables 4, 5 and 6.

Table 4
Crosstabulation: Age & NSNI to someone participant liked

		NSNI sent to someone liked			Total (%)
		Yes (%)	No (%)	Don't Know (%)	
Age	Older	53 (12)	192 (44)	1 (0)	246 (56)
	Younger	22 (5)	153 (35)	13 (3)	189 (43)
	Total	75 (17)	346 (79)	14 (3)	436 (100)

The above results (see Table 4) indicate that older adolescents (16-19 years old) are significantly more likely to send a NSNI to someone they liked: $\chi^2 (6, N = 436) = 21.72$, $p < .001$.

Table 5
Crosstabulation: Age & SSTM to someone participant liked

		SSTM sent to someone liked			Total (%)
		Yes (%)	No (%)	Don't Know (%)	
Age	Older	131 (29)	110 (25)	5 (1)	248 (57)
	Younger	59 (13)	116 (26)	14 (3)	189 (43)
	Total	190 (43)	226 (52)	19 (4)	438 (100)

Similarly, older adolescents were more likely than their younger counterparts (aged 12-15) to send SSTM to someone they liked: $\chi^2(6, N = 438) = 25.44, p < .001$ (see Table 5).

Table 6

Crosstabulation: Age & SSTM to someone participant was in a relationship with

		SSTM to someone in relationship			Total (%)
		Yes (%)	No (%)	Don't Know (%)	
Age	Older	132 (32)	95 (23)	3 (1)	231 (56)
	Younger	56 (14)	110 (27)	11 (3)	178 (43)
	Total	188 (47)	205 (50)	14 (3)	410 (100)

According to Table 6, adolescents between the ages of 16 and 19 years old were also more likely to send SSTM to someone they were in a relationship with: $\chi^2(8, N = 410) = 31.95, p < .001$.

4.2.3 Gender differences. A particular area of interest in this study was whether dissimilar expectations and standards existed for male and female sextors. Apart from descriptive statistics around gender and sexting, qualitative statements from adolescent participants are also presented below.

The majority of respondents agreed that females are under more pressure to sext than males (62% of teenagers and 63% of adults agreed and strongly agreed). Qualitative support for this finding is presented in the following teenage responses (M = Male; F = Female; age is noted in brackets):

"Girls are mostly pressured by boys to send naked pics (sic)." M (16)

"Girls are easily influenced into doing things that they don't necessarily want to." F (16)

"Boys put more pressure on the girls (who) don't know how to say no. Or the boys target the young girls who are naive and don't realise the consequences." F (15)

Gender differences became further apparent when asking about the reasons that males and females choose to sext. According to adolescent participants, boys are most likely to sext to be fun and flirty (67%), to show that they are sexually experienced (62%), to spice up their current relationship (56%) and to enhance their reputation (55%).

"Boys do it to boast or show off." M (13)

"Guys tend to "brag" and show off what they can get a girl to do for them." F (16)

"Boys do it for pleasure or popularity among other boys." M (17)

According to the results, girls also sext in order to be fun and flirty (70%), however, there also seem to be several negative factors influencing their behaviour. These include their partners pressuring them to send NSNIs (65%), not knowing how to say no to these requests (62%), or not wanting to risk losing their partners (65%).

"Girls don't actually like doing any of that stuff." F (16)

"Girls are doing it because they feel pressured to." M (15)

"Girls think boys will leave them if they don't sext; they'll get bored." M (16)

The majority of adult respondents agreed that men and women who sext are likely to do so in order to be fun and flirty (73% for men and 86% for women), and to spice up their current relationships (79% for men and 83% for women). For men, the remaining reasons were to initiate a relationship (71%) and to show that they are sexually experienced (68%).

The double standard of boys receiving a boost in their status or popularity from receiving a sext, and girls receiving derogatory labels as a result, was also evident.

"If a girl does it she's a slut; if a boy does it, it's cool." M (15)

"Boys think it's cool ... it only hurts the girl ... she regrets it when people find out." M (16)

"Girls are told of the dangers, yet boys have no consequences." M (16)

"Girls' reputations are at stake if they sext. Guys don't have this problem." F (17)

Adult women were assumed to sext in order to give their partner a "sexy gift" (86%), as well as due to pressure from their partners (73%) or fear of losing their relationships (70%). These reasons are similar to those noted for adolescent girls. The assumption of negative pressure to sext seemed to hold true for both teenage girls and adult female respondents.

"Girls ... find it harder to say no than boys. Some girls may like the attention." F (15)

"Boys ... manipulate girls into thinking they have to send a pic (sic)." F (16)

"Boys are more influenced to sext, whereas girls aren't put under pressure by their friends, rather their partners." M (17)

The results also seem to indicate a difference in the emotional and sexual maturity and the general sexual and sexting outlooks of boys and girls:

"Guys don't take it seriously; girls see it as private and special." M (16)

"Boys could be doing it as a practical joke yet girls take it more seriously. It is also very easy for images to be classified as sexting for girls." M (17)

Gender stereotypes, and what is acceptable for men versus women, also played out in the comments:

"It seems wrong for a guy to do it (sext)." M (16)

"Girls have more to prove because they are viewed as the inferior gender. So they feel they need to sext more to get the guy". F (17)

There was also a sense that girls needed to prove they were attractive, exciting and sexy by sending a sext. Failure to do so could see them not "getting" the guy, losing their

partner or being considered boring. However, adolescent respondents also seemed cognisant of the fact that girls seem at risk of losing the most from sexting.

“Girls do it to make themselves feel good when they get positive feedback from boys; and boys just want to see naked pictures.” M (15)

“Girls don’t want to seem boring or don’t want to lose their partners.” F (16)

“Girls are emotionally involved and trust the boy. But boys think it’s a joke and this could damage the girl.” F (16)

“For girls it’s only meant for one guy and it’s more ‘soul-bearing’.” F (17)

Using chi-square analyses it was possible to determine a statistical relationship between gender and sexting behaviour within exclusively online relationships (Hypothesis 2).

The results demonstrated that *adolescent males* are more likely than their female counterparts to send NSNI to someone known to them *only online*: $\chi^2 (1, N = 451) = 10.896$, $p < .001$ (see Table 7). H^2 “Adolescent boys are more likely than adolescent girls to sext someone known to them only online.” was therefore accepted.

Table 7

Crosstabulation: Relationship between Gender and Sending NSNI Online

			NSNI sent online		
			Yes NSNI	No NSNI	Total
Gender	Male	Count	20	208	228
		% NSNI	(8.7)	(91.2)	(100)
	Female	Count	4	219	223
		% NSNI	(1.8)	(98)	(100)
	Total (N)		24	427	451

4.2.4 Privacy and viral images. Participants provided data regarding sexted images “going viral” on the Internet (i.e. being forwarded and widely disseminated) without the subject’s consent or knowledge thereof. Fifty-six percent of adolescents and 68% of adult respondents reported knowing someone who had forwarded a NSNI, without the sender’s permission or knowledge thereof.

In the teenage group, 90 respondents reported knowing of someone whose NSNI had been posted to the World Wide Web (WWW) by someone else, and 134 learners (30%) said they knew of situations where other adolescents used sexted images to hurt or upset the person who was the subject of the image. In the adult sample, 26% of respondents reported knowing at least one person who had posted a sexted image to the Internet without the person in question’s permission.

Sexting via social networks seemed quite common among the adult sample. Sixty-nine percent of adults reported knowing people who sext via their cell phones, 38% via instant messaging (IM) programmes and 32% know others who have sexted via Facebook.

4.3 Sexual Demographics and Sexting

4.3.1 Sexual demographics. A further objective of the study was to determine whether there was a relationship between sexting and actual sexual behaviour (ASB) among adolescents. The reason that only the adolescent data were analysed for this purpose, is that sexting is only considered illegal for minors (anyone under 18 years of age), and therefore presents greater legal and psychosocial implications than for adults. Table 8 provides relevant general data regarding adolescent respondents' relationships and sexual activity.

Table 8
Sexual Demographics of Adolescents

	(%)
In committed relationships	22
In a casual "hook up"	14
Single	67
Never had sexual intercourse	46
Given oral sex	26
Received oral sex	26
Had vaginal / anal intercourse	17

In an effort to supply more detailed and empirically meaningful data, Table 9 provides insight into the specific age and gender frequencies around adolescents' actual sexual behaviour, specifically their participation in oral, anal or vaginal sexual intercourse.

Table 9
Age, Gender & Actual Sexual Behaviour (ASB) - Adolescents

Gender	Given OS(%)	Received OS(%)	Had VS/AS(%)
Male	52	55	55
Female	48	45	45
Age	Given OS (%) N = 121	Received OS (%) N = 122	Had VS/AS (%) N = 78
13	-	2	-
14	3	3	-
15	12	12	9
16	29	24	22
17	34	39	40
18	21	18	24
19	3	3	5

Key: Oral (OS), Anal (AS) & Vaginal Sex (VS)

From Table 9 it appears that similar proportions of males and females have engaged in sexual intercourse, although the prevalence was slightly higher for males. Furthermore, all categories of actual sexual behaviour (OS, VS and AS) were also more frequent among adolescents aged 16 – 18 years old. However, one of the reasons for this may have been that learners within this age range comprised the majority of the adolescent sample.

4.3.2 The Relationship between sexting and actual sexual behaviour (ASB). The question of whether sexting was related to ASB was explored (Hypothesis 3). For the purposes of hypothesis testing, ASB was defined as participation in any or all of the following sexual acts: Performing oral sex, receiving oral sex, engaging in vaginal sexual intercourse and /or engaging in anal sexual intercourse. According to this study, 31% of adolescents reported engaging in one or more of the ASB listed.

The various statistical associations between relational contexts and ASB are presented in Tables 10, 11, 12 and 13 below.

Sending a NSNI to someone the participant *liked* and *wanted to hook up with* was positively related to engaging in ASB: $\chi^2(3, N = 436) = 42.19, p < .001$ (see Table 10):

Table 10

Crosstabulation: ASB & Sending NSNI to someone participant liked

		NSNI to someone liked			Total (%)
		Yes (%)	No (%)	Don't Know (%)	
Sexual Behaviour	Yes	47 (11)	85 (20)	4 (1)	136 (31)
	No	28 (6)	261 (60)	10 (2)	300 (69)
	Total	75 (17)	346 (79)	14 (3)	436 (100)

Similarly, sending NSNI to someone the respondent was *in a relationship with* and engaging in ASB was significantly related: $\chi^2(3, N = 433) = 63.51, p < .001$ (see Table 11).

Table 11

Crosstabulation: ASB & sending NSNI to someone participant was in a relationship with

		NSNI to someone in relationship			Total (%)
		Yes (%)	No (%)	Don't Know (%)	
Sexual Behaviour	Yes	58 (13)	74 (17)	5 (1)	137 (32)
	No	29 (7)	258 (60)	8 (2)	296 (68)
	Total	87 (20)	332 (77)	13(3)	433 (100)

According to Table 12, with regard to sending SSTMs to someone the participants *liked* and *wanted to hook up with* and engaging in ASB, the relationship also proved positive: $\chi^2(3, N = 438) = 33.42, p < .001$.

Table 12

Crosstabulation: ASB & sending SSTM to someone liked / wanted to hook up with

		SSTM to someone liked or wanted to hook up with			
		Yes (%)	No (%)	Don't Know (%)	Total (%)
Sexual Behaviour	Yes	87 (20)	45 (10)	6 (1)	138 (32)
	No	103 (4)	181 (41)	13 (3)	300 (69)
	Total	190 (4)	226 (52)	19 (4)	438 (100)

Similarly, sending a *SSTM* was positively correlated to ASB for adolescents *in a relationship*: $\chi^2(4, N = 410) = 38.61, p < .001$ (see Table 13).

Table 13

Crosstabulation: ASB & SSTM to someone participant in relationship with

		SSTM – sent to someone in a relationship with			
		Yes (%)	No (%)	Don't Know (%)	Total (%)
Sexual Behaviour	Yes	90 (22)	39 (10)	5 (1)	134 (33)
	No	98 (23)	166 (41)	9 (2)	276 (6)
	Total	188 (45)	205 (50)	14 (3)	410 (100)

4.4 Sexting Attitudes

Attitudes toward sexting varied within the adolescent and adult samples. Most young people disagreed or strongly disagreed that sexting is an important part of their romantic relationships (68%), however, 37% felt that there *was* pressure on their cohort to send NSNIs. Nearly 40% of adolescents also reported there was some pressure to send SSTMs to others. Despite this perceived pressure, almost 70% of teenagers said choosing *not* to sext would not negatively impact on one's popularity. Of the adult sample, only 35% agreed or strongly agreed that sexting was an important part of romantic relationships.

Most adolescent and adult respondents (57% and 54% respectively) agreed that sexting had the potential to damage relationships. Specifically, adolescents concurred that sending a NSNI (84%) and SSTM (63%) could lead to serious consequences. A slight majority of teenagers (52%) felt that sexting was a “big deal”, with 56% of adults being of the same opinion.

In order to account for all types of sexting, different relational variables were considered. When taking place within the context of a committed relationship, 45% of adolescents and 69% of adults felt that sexting was appropriate. However, when the

relationship was defined as a casual “hook up”, the numbers dropped to 23% and 34% respectively. The majority of adolescents were strongly opposed to the idea of sexting someone who was only known to them online (77%), although in general, many still felt that it should be up to them to decide to sext whomever they wanted to (45%).

Table 14 provides an overview of adolescent and adult attitudes towards sexting. Data are represented in terms of Strongly Agree/Agree (SA/A) and Strongly Disagree/Disagree (SD/D) statements. Note that where the dash (-) is used in the table this indicates that the respondents were not asked this question.

Table 14
Attitudes towards Sexting

	Adolescents		Adults	
	% SA/A	% SD/D	% SA/A	% SD/D
People who sext are confident in their sexuality.	36	32	37	33
People who sext are promiscuous.	35	26	28	44
Sexting is risky.	-	-	89	5
Sexting is a healthy form of expression.	-	-	28	43
Sexting is immoral.	35	36	25	52
Celebrities who sext encourage others to sext.	38	21	54	17
The media encourages people to sext.	40	28	63	20
People who sext are looking for attention.	54	19	49	27
Technology has made it easier for people to sext.	84	7	97	-
I would send my partner NSNI of me.	24	52	29	56
I would like my partner to send me NSNI of themselves.	29	48	28	61
Girls are under the most pressure to sext.	62	13	63	11
Boys are under the most pressure to sext.	16	49	26	41
Teens who sext are definitely having sex in real life.	-	-	18	56
Rather sext than have sex in real life.	-	-	37	31

4.5 Risks and Consequences

Both adult and adolescent respondents noted similar risks and consequences of sexting, as reported in Table 15.

Table 15
Risks and Consequences

	Adolescent (%)	Adult (%)
Message / Image being forwarded to others	57	68
Parents / family finding out	48	57
Future university / college finding out	48	29
Damage to reputation	47	68
Criminal or legal consequences	46	25
Future employers finding out	38	51
Attempting suicide	25	34

Respondents in both groups reported being most concerned about their sexted image being forwarded to others. Adolescents were further concerned about their parents or future universities or colleges finding out about their sexting incidents. Adult participants expressed worry about their families finding out, as well as the potential damage to their reputations.

4.6 Awareness, Education and Intervention

Previous research has given little attention to understanding the knowledge bases of adolescents regarding sexting and its consequences. Table 16 gives an indication of the people or resources from which the adolescent respondents have previously received sexting information.

Table 16
Education and Intervention Received – Adolescents

Where have you previously received sexting information and education from?	(%)
Teacher / LO teacher	46
Friends	35
Parents	31
Magazines	31
TV series and movies	24
Internet	18
Guest speakers at school	12
Siblings	9
Books	9
School principal in assembly	7
School counsellor	7

Of the adolescent sample, 55% reported that they had not received any information at all about sexting. Sixty-one percent of adolescents and 85% of adult respondents agreed that young people *should* receive information and education around the consequences of sexting. Sixty-eight percent of adult respondents felt that “*most teens are sexting today*” and 62% thought that youth experienced a great deal of pressure to sext. That adolescents are likely to be sexting people they know personally was the viewpoint held by 59% of adult respondents, with 51% surmising that adolescents are sexting people whom they know only online (compared to the actual 5% of teenagers who admitted to doing so). This adult group also thought that adolescents were not aware of the risks around sexting (48%).

Forty-one percent of adult respondents reported that parents were unlikely to know if their children were sexting and that schools had an obligation to inform parents of sexting incidents (84%). It was commonly believed among this adult sample that parents had little

idea what their children were up to online (91%) and that parents themselves could benefit from information around adolescent sexting (89%).

In this study 67% of learners felt that adolescents should be involved in designing and implementing intervention programmes targeted at their cohort, and 18% ($N = 75$) reported that they would personally be interested in helping in some way.

The adolescent sample indicated which forms of education they would prefer (see Table 17):

Table 17
Preferred Sexting Education & Intervention – Adolescents

Item	%	N
Discussions in LO class	57	(235)
Talking to a teen who has had personal experience	45	(183)
TV series or documentaries	37	(147)
Small group discussion with trusted teacher	34	(134)
Pamphlet / reading material	29	(113)
Drama / play in assembly	27	(107)
Guest speakers in assembly	26	(105)
Small group discussion with an adult who is not a teacher	22	(86)
Small group discussion with school counsellor	20	(79)
Talk to parents	20	(80)
Accessing online information	19	(73)
Small group discussion with peer counsellor	13	(52)

In terms of accessing support for a negative sexting experience, adolescents reported that they would mostly likely speak to friends (49%), mothers (43%), fathers (25%), and boyfriends/girlfriends or brothers/sisters (18% respectively). Twenty-two percent of adolescents ($N = 97$) reported that they would rather handle the issue independently.

4.7 Conclusion

This chapter presented the results of the adolescent and adult Sexting Surveys. Prevalence of sexting seemed at least on par with the international studies reviewed. Adolescent and adult sexting activities were found to be associated with age, gender and ASB, with older adolescents and males more likely to engage in the practice. Relational contexts were also found to have a significant influence with hooking up, being in a relationship, or knowing someone only online, accounting for some of the variation in prevalence and type of sexting (i.e. sending a NSNI or SSTM). A thorough discussion of these results, as they relate to the existing academic research, will follow in chapter 5.

CHAPTER 5

DISCUSSION

The current study provided information about adolescent and adult sexting practices and attitudes. Results of the statistical analyses indicated that sexting is more frequent among older adolescents, that boys are more likely than girls to sext someone known online, and that sexting is related to actual sexual behaviour (ASB). Gender trends and biases were also noted. The following section discusses these results with reference to previous academic literature.

5.1 Adolescents and Technology

The vast majority of adolescents in this study reported completely autonomous use of their cell phones and unsupervised use of the Internet, which is in line with previous findings (Manning, Gjordano, & Longmore, 2006; Mitchell, Finkelhor, Jones, & Wolak, 2012). As technology becomes more advanced and integrated with all aspects of adolescent lives, sexting is unlikely to be a short-lived trend. Adolescents seem to regard it as commonplace (Phippen, 2012) and as such sexting seems set to become even more prolific in youth culture.

5.2 Prevalence

Until a standardised measure of sexting is created and comparative international studies carried out, it will be difficult to compare sexting prevalence among different populations. What can be determined, at least from the current data of this highly selective sample, is that sexting is a known phenomenon among the respondents in this study, occurring variably across age ranges and within a variety of relational scenarios, which is in line with studies abroad (e.g. Lenhart, 2009; NCPTUP, 2008). In the current study prevalence rates fell between 5% - 46% for adolescents and 6% - 55% for adults, with relational contexts and type of sexting being particularly influential.

A larger proportion of adolescents than adults reported sending NSNIs to someone they liked and wanted to hook up with. Just 5% of teenagers in this study ($N = 23$) reported sending a NSNI to someone known to them only online, therefore, the panic around adolescents' careless online behaviour may be overstated and sensationalised by the media. It seems parents should be more wary about what their children's peers are compelling them to do online in the pursuit of social approval, rather than the cyberspace stranger, which also supports previous findings (e.g. Ringrose, Gill, Livingstone, & Harvey, 2012).

It must be noted that this study has limited external validity which prevents any broad-based conclusions from being drawn about adolescents in general and adolescents in South Africa.

5.2.1 Age and gender effects. Whilst males and females across age cohorts were reported to sext for the primary reason of being “fun and flirty”, there were indications of gender bias. In the current study, nearly 62% of adolescents and 63% of adults thought that *teenage girls* experience more pressure and negative motivation to sext. In attempting to ascertain a relationship between gender and sexting to exclusively online “partners”, chi-square analyses demonstrated that *adolescent males* are more likely than their female counterparts to send NSNI to someone known to them *only online*. Whilst this result supports the NCPTUP (2008) study findings, it is contrary to some studies which found that girls are most likely to sext (e.g. Henderson, 2011). Further attention should be given to differing relational scenarios in future.

Apart from the demands from their partners, females were thought to sext because they were *not able to say no, did not want to lose or disappoint their partner*, and *craved attention*. This finding has been substantiated by other researchers (Ringrose, Gill, Livingstone, & Harvey, 2012). Adolescents’ qualitative comments highlighted the age-old double standard of boys being admired for their sexual activity and girls denigrated for the same behaviour, which is again in line with the findings of similar studies (e.g. Tyson, Dobson, & Rasmussen, 2012).

5.2.2 Sexting attitudes. In this study a number of adolescents (36%) and adults (37%) felt that people who sext could be considered sexually confident, however 54% of teenagers and 49% of adults thought that attention-seeking behaviour was also related. Where there may have been caution around one’s own practice of sexting, the consensus seemed to be that people should be allowed to sext if they so wished. Adolescents and adults alike further agreed that the media has been influential in creating some pressure to sext.

5.2.3 Sexting, relational intimacy and actual sexual behaviour (ASB). Intimacy develops faster on the Internet than in the offline world, largely due to easier self-disclosure (McKenna, Green, & Gleason, 2002). Rosen (2007) argues that feeling disinhibited online can lead to hyperarousal and self-disclosing interactions which generate a sense of emotional connection. This connection and subsequent sense of trust may cause adolescents to say things or send images under a feeling of false intimacy. This disinhibition effect can be either toxic (as in the case of sharing pornography) or benign (e.g. sharing harmless information). This may account for the number of adolescents and adults who are comfortable

sexting people they are not necessarily in a relationship with, and those known to them only online.

When considering gendered reasons for sexting in this study, the fast pace and novelty-seeking aspects of relationships were evident. For example, adolescents agree that *both* boys and girls sext mostly to *initiate relationships, flirt, enhance their popularity, show sexual experience* and *to spice up their current relationships*.

Previous studies have tentatively linked sexting to ASB (NCPTUP, 2008; Henderson, 2011), and this was supported in the current study. Among the adolescent sample it was found that sending NSNIs and SSTMs was positively linked to relationship and hooking-up scenarios among adolescents.

Regarding ASB, the results indicate the highest frequency of giving and receiving oral sex fell within the 16-17 year age range. Vaginal and anal sexual intercourse was reportedly most frequent in the 17-18 year old categories (40% and 24% respectively). This is similar to the findings of a study of 2740 grade 8 and 11 students in 39 high schools in Cape Town, where Flisher, Reddy, Muller and Lombard (2003) found that 30% of grade 11 students were sexually active (compared to 36% in the current study), with a higher proportion among males. Whilst the group of grade 11's in the current study reported a higher rate of sexual intercourse than the 2003 learners, these findings must be interpreted with caution as the two research samples differed greatly in terms of the number of participants, type of schools and demographics of the participants. The studies also differed in their operationalisation of 'sexual intercourse' with the current study utilising a broader definition.

5.3 Risks and Consequences

5.3.1 Online exposure and sexual predation. Public exposure or damage to one's reputation was of paramount concern to adolescents and adults alike in this study. Yet the act of sexting is unfavourably loaded towards this outcome: The chances are very real that one's naked image could be forwarded to others, particularly within the highly temporal, impulsive context of adolescent relationships.

Whilst online sexual solicitation of children by adults is an ongoing concern, Rickert and Ryan (2007) reported that in the USA only 3% of adolescents would respond to an inappropriate adult online demand; most had the sense to ignore, delete or report such requests. In the current study, only 5% of adolescents sexted people they knew *only* online, with the vast majority sexting (SSTMs and NSNIs) people they were involved with romantically, or would like to be involved with. The indications are thus that sexual predation by strangers online actually presents a small risk to young people. Of greater concern is the

fact that young people are disseminating self-generated NSNIs to people they know. This suggests that intervention and awareness resources should be aimed at educating adolescents around negotiating and maintaining relational boundaries and personal privacy, rather than avoiding strangers online – which most seem to be doing anyway.

5.3.2 Future prospects. The curtailment of future educational and employment opportunities is a very real sexting risk previously noted (e.g. Tyson, Dobson, & Rasmussen, 2012). In this study the majority of adolescents and adults feared damage to their educational prospects, with just more than half of the adult sample considering future employers finding out to be a significant risk.

5.3.3 Criminal and legal consequences. In spite of legislation around minors, pornography and sexting, in one USA study only half of adolescents knew about those laws (Cox Communications, 2009). In the present study, legal and criminal considerations were not even among the top three most significant consequences for adolescents (ranked 5th), which suggests that they are either unaware of these laws, or ambivalent about the seriousness of them.

5.4 Education and Intervention

As sexting is a complex psycho-social phenomenon loaded with sexualised, gendered and mass-mediated meaning, any attempt to address it should involve the following role players:

5.4.1 Young people: Developing agency. Heath, Brooks, Cleaver and Ireland (2009) speak to the importance of youth researchers engaging with young people at the operationalisation stage of study design. Involving young people early on can raise research questions which the researchers may not have thought of themselves, thus making the study more relevant to the issues affecting adolescents. Previous literature also critiques researchers for failing to acquire adolescents' input around sexting education (e.g. Hinduja & Patchin, 2008). In the current study the majority of adolescents (67%) felt that young people should be involved in designing and implementing intervention programmes targeted at their cohort, and just under a fifth ($N = 75$) answered that they would personally be interested in helping in some way.

5.4.2 Caregivers: Increased involvement. The digital world has changed adolescents' experiences of growing up, as well as the skills that parents need to help teenagers navigate this world (Cohn, 2009). Niemann, Marais and Swanepoel (2011) suggest that parents should accept that adolescents use social media to form online relationships, and

would do well to coach young people in negotiating and fulfilling these social roles safely and successfully.

Most adults in this study agreed that parents are unlikely to know if their adolescents are sexting and have little idea what their children are doing online. This likelihood was supported in that the majority of adolescents (91 – 94%) reportedly enjoyed unsupervised Internet and cell phone activity. Lynn (2010) suggests that parents who believe themselves deficient in some technological sense are likely to doubt their own skills and trust “experts” when it comes to tackling issues such as sexting. The results suggest that parents should be encouraged to remain informed about social media and become active in monitoring their children’s use thereof. Whilst the reasons for the lack of supervision are unknown among the private school families in this study, children in lower socio-economic schools and families may be even more at risk, i.e. these parents and caregivers may not have the requisite skills, (both in terms of literacy and technology) to monitor their children’s online activity at all.

Furthermore, Ringrose, Gill, Livingstone and Harvey (2012) argue that adults should be encouraged to confront their naïveté and discomfort around sex-related topics. If adults discuss sex, sexual pressure, sexuality, sexting and gendered politics in an open, factual manner, adolescents may feel confident in following suit.

5.4.3 Friends and peers: Harnessing peer learning. In terms of help-seeking around sexting, in the current study adolescents were most likely to seek support from friends (49%). Furthermore, adolescents were least likely to seek out their school- (8%) and peer counsellors (5%) for guidance. This is unfortunate as these two groups are likely well positioned and equipped to provide such assistance. Phippen (2009) emphasises the importance of peer education programmes. However, whilst Tolli (2012) concedes that peer education groups are popular for sexual health promotion, there is no clear evidence that peer-run programmes are more effective when addressing sexual health issues. Further research is therefore required.

5.4.4 Schools: Empowering educators. Intervention at a school level is not without its challenges. Once aware of a sexting incident, school administrators are required to investigate the matter and take care not to cause secondary traumatisation to the adolescents involved through judgemental, violating or voyeuristic actions (Chalfen, 2009). Hinduja and Patchin (2008) suggest that school anti-sexting policies are imperative and should include the following items: 1) possession of sexually explicit material by minors is prohibited; 2) all parties alleged to be involved in a sexting incident must immediately delete the image or face disciplinary action; 3) parents and police may be contacted to investigate further; 4) cell

phones can be searched if probable cause is established; 5) consequences and courses of action to be taken must be clearly stated and 6) harassment or bullying as a result of sexting incidences must be prohibited.

It has been suggested that effective adolescent health programmes (including those that address sexual risk behaviour) should include a combination of prevention programmes and policies which occur within children's second decade of life (Catalano et al., 2012). Furthermore, cognisance should be paid to predisposing and protective factors when designing and implementing evidence-based programmes. In other words, programmes must use what is already in a child's environment and harness the strengths and weaknesses of that system when attempting to change risk behaviour.

School sexting education strategies could include assemblies, staff development and seminars for parents; online resources could also be developed and shared via the school's website or parent/student portal (Hinduja & Patchin, 2008). These authors further suggest that the message around sexting, as with many other risk behaviours, needs to be continually driven home and learners made aware that their schools will take decisive action on sexting. Adolescents' ignorance of the criminal element of sexting could also be challenged if they were made aware of sexting policy and legislation at a school level.

Unfortunately many sexting intervention programmes have not been able to reach their intended audience (Brown, Keller, & Stern, 2009). Hinduja and Patchin (2008) advise future interventionists to target their programmes by style, content and channel, as different categories of teenagers use new technologies differently (e.g., the variable use of personal computers versus cell phones among certain groups). Cohn (2009) further suggests that education interventions that are gender-specific and discussion-based may be favourable.

5.4.4.1 Experiential learning. In this study the second most preferred intervention for adolescents was the opportunity to speak to someone who had personally experienced the consequences of sexting. Adolescents in particular are readily aroused by the emotional expressions of others and what gratifies or terrifies their models is likely to influence their own behaviour (Bussey & Bandura, 1999). This may have significance in terms of intervention strategies around sexting; if young people are exposed to the negative outcomes of sexting on their cohort (e.g. fines or public exposure) this may serve to deter them from further sexting. Allowing adolescents to engage with peers who might have experienced, and overcome, negative sexting scenarios could be immensely beneficial to youth. A type of experiential learning, where a simulation of consequences could be role played may also

present a valuable intervention strategy. It would serve the purpose of making the experience or outcome slightly more real and worthy of future caution and consideration.

5.4.4.2 Role of Life Orientation (LO) in SA. Nearly 46% of adolescents in this study had already received some information around sexting from their LO teachers, and 57% would prefer to receive future sexting education in the same manner. This finding speaks to the value of this subject in the SA education curriculum. Of course, learners in this study attend well-resourced schools, where LO is probably given due attention on the time tables and taught by specialist teachers. The same may not be true for state schools where overcrowding and poor resources are generally the norm.

The results also suggest that when it comes to sensitive topics, adolescents may prefer a relaxed, but contained environment where they can share ideas candidly. Informal class discussions, facilitated by a knowledgeable, sensitive and empathic teacher could create the kind of scenario where those who do not wish to personally contribute could still benefit from hearing the discussion unfold. As much as they live their lives online, the results also suggest that when it comes to education around such issues, adolescents may prefer face-to-face, adult-facilitated dialogue.

Unfortunately, it is unlikely that all teachers will feel comfortable discussing sexting with a class of adolescents. Where this is the case, schools should endeavour to find resources with which to engage learners about the issue. This media-driven generation might not want to seek out their own education online (only 18% in this study wanted online sexting resources); however, Internet-based resources could still be effectively used in classroom discussion and debate. Ideally, the National Department of Basic Education could direct that an evidenced-based, standardised programme be researched, designed and implemented at schools, as a compulsory part of the LO curriculum, thereby ensuring a standardised nationwide approach to the issue.

5.4.5 Mass media: Shaping accountability. Adolescent sexting tends to be an emotive issue for parents, compelling the mass media to often misrepresent empirical data in a salacious manner (Lounsbury, Mitchell, & Finkelhor, 2011). Apart from responsible reporting around the prevalence, Bailey and Hanna (2011) suggest that media should be held accountable for the excessively sexualised content made available to adolescents in general.

5.4.6 Legislation: Developing effective policy. Children have the right to privacy, the freedom of expression and the freedom to receive or impart information or ideas (Badenhorst, 2011). Whilst these ideals reflect the best of South Africa's progressive Constitution, they also pose significant difficulty in terms of dealing with adolescent sexting.

Section 19 of the Criminal Law (Sexual Offences and Related Matters) Amendment Act of 2007 provides guidelines from which action could be taken on adolescent sexting, which were thoroughly explored in Chapter 2.

In keeping with international trends (Shafron-Perez, 2009), Badenhorst (2011) suggests that in order to address the consequences of sexting for adolescents in SA, there needs to be a focus on 1) educating and sensitising the police force and legal representatives, 2) seeking alternative punishment and rehabilitation before resorting to criminal action, 3) using diversion programmes where criminal action is necessary, 4) encouraging the media to engage in prevention efforts aimed at young people, 5) compelling social networking site owners to take some responsibility, possibly by funding diversion programmes, 6) educating teachers and parents about the signs of sexting and cyberbullying, and lastly 7), encouraging children to recognise and report such incidents.

5.5 Limitations of the Current Study

5.5.1 Sample. The adolescent sample ($N = 451$) comprised a relatively homogenous group of upper-to-middle-class young people from four private high schools, where learners had the resources and skills to access the Internet and multi-media devices easily and often. This sample was not representative of the majority of the South African population and as such the results are not generalisable. The external validity of the findings may further be restricted by the limited geographic range of the sample. Furthermore, the UCT student participants also were not representative of the general population. Regarding the remaining adult participants, the Internet has no population of which to speak, as such it was impossible to verify the participation criteria of those who completed the online survey. Furthermore, those who did participate displayed “opt-in-bias” as they were a self-selecting group who were interested in the topic (Heath, Brooks, Cleaver, & Ireland, 2009; McCready, 2006). Lounsbury, Mitchell and Finkelhor (2011) criticise the use of unrepresentative and convenience samples, which may result in an increase in estimates of incidence. Unfortunately, in this case it was unavoidable as access to a larger, more representative adolescent sample was prohibited.

Adult participants in this study were required to have Internet access, which in a country like South Africa can speak to a particular demographic in terms of income, education and race. DiMaggio, Hargittai, Celeste and Shafer (2004) suggest that one’s ability to make use of new media, much like other socio-economic opportunities, is influenced by race, family, socio-economic status, education level, gender, and rural or urban residence. Again, this speaks to the homogeneity of the current sample.

5.5.2 Administration constraints. The four participating schools generously provided teaching time in which the learners could complete the survey. Due to logistical issues teachers administered the questionnaires in 3 out of the 4 schools. Whilst unavoidable, it was not ideal for teachers to administer or collect the surveys, as this could have influenced the participants' responses, particularly as the survey was of a personal nature.

5.5.3 Survey limitations. This study relied on self-reporting which may have involved exaggeration or under-reporting of sexting and sexual behaviour based on participants' perceptions of socially desirable norms or social stigma (Palen, Smith, Caldwell, Flisher, Wegner, & Vergnani, 2008).

Whilst surveys are convenient and generally quick to complete, the results provide little insight into *why* the respondents answered as they did. The brief qualitative comments obtained from the study suggest that more in-depth investigation would have allowed for richer insight into the topic.

As a cross-sectional study, the data do not allow for the temporality of observed associations. In other words, we do not know how the results may change if assessed over time.

5.5.4 Systematic response differences. The study design may have caused systematic response differences, i.e. participants might have answered differently on paper than they did online (Bergman, 2008). Mensch, Hewett and Erulkar (2003) in particular noted that there is some evidence to suggest that adolescents report different sexual behaviours according to whether data is collected electronically or via paper and pencil methods. Participants seem to consider electronic surveys more confidential and therefore more conducive to honest responses.

5.6 Recommendations for Future Research

5.6.1 Representative sample. This study has shown that sexting *is* prevalent in private schools and among adults locally; however, more research needs to be undertaken to determine the extent of the issue in the broader population. In particular, the national or provincial education officials could endorse a study which researches the sexting practices of young people across South African state and private schools.

Some writers have made a compelling argument for the incorporation of race, age, class and culture as well as gender, when researching young people's sexuality (Ringrose, Gill, Livingstone, & Harvey, 2012). This is particularly pertinent to South Africa's heterogeneous population. Given the cultural and racial diversity and socio-economic disparity in our nation, as well as gender politics (including culturally-sanctioned patriarchy

and high rates of violence against women) adolescents' approaches to using online technology and their experiences of online sexual communication are likely to be vastly different.

In general, Lounsbury, Mitchell and Finkelhor (2011) recommend that future research around sexting considers the following: 1) samples should be limited to minors, i.e. children 17 years and younger as criminalisation around sexting applies to images of this age group; 2) terminology should be consistent and focus on naked or near-naked images created, as sending sexually suggestive text messages is not illegal; they suggest the all-encompassing term "youth-produced sexual images" be employed; 3) greater emphasis should be placed on *who* youth are sexting and *why*, in order to develop a thorough understanding of motivation and causation.

5.6.2 Development of a standardised measure. It is essential that a psychometrically sound measure of sexting, with norms developed for the South African population, is developed. Dake, Price, Maziarz and Ward (2012) make a strong case for a correlation between sexting and youth risk behaviour, including emotional dysfunction, substance abuse and sexual behaviour. A focus on the correlation between sexting and emotional health issues in an attempt to identify at-risk adolescent populations would also therefore prove valuable. Researchers should determine whether sexting is in fact a healthier, safer option than engaging in oftentimes high-risk actual sexual activity. Whether sexting could actually lead to online victimisation could also be explored.

Provision should be made for participants to provide input about the positive aspects of sexting and what they gain from the practice. Popular media suggests that within adult relationships sexting opens up communication about one's sexual needs and desires. The explicit uncovering of positive sexting outcomes in both adolescent and adult samples was lacking in the current study.

5.6.3 Study design. Future research could include focus groups or structured individual interviews to allow for richer, qualitative data collection that is participant-driven.

5.6.4 Bystander sexting. Whilst this study provided a relatively clear picture of adolescents' creating, sending and receiving sexted images, it neglected to fully understand bystander involvement. Whilst bystanders do not create or solicit sexted images, they remain complicit in perpetuating this trend as they forward the sexted images they receive. When adolescents receive unsolicited sexted images (whether they know the subject in question or not), they would do well to delete it, not save or forward it. Bystander behaviour should be further investigated as it too carries criminal consequences for the minors in question.

5.6.5 Effective intervention. Future research could explore the reasons that adolescents seem unlikely to access their school- and peer counsellors for guidance regarding sexting, and how peer education could be strengthened in order to meet the sexual education needs of South African learners.

5.7 Conclusion

As far as is known, this was the first empirical study of adolescent and adult sexting behaviour in South Africa. The study was able to integrate recommendations and critiques from previous studies, including more broadly defined sexting terms (sending SSTMs and NSNIs). As preceding studies have shown that sexting takes place within a variety of relational contexts (Lenhart, 2009) it was valuable that the current study asked participants to differentiate between sexting 1) when in a committed relationship, 2) with someone they liked or wanted to “hook-up” with and 3) to someone known to them in an online capacity alone.

The overall results suggest that sexting is variably prevalent among adolescents and adults and impacted by gender, age, relational context and sexual activity of the sextor. Risks and consequences, including a strong emphasis on local and international legislation around the sexting of minors, were reviewed. An effort was made to provide detailed information that could inform educational interventions around sexting, taking into account the resources and roles of specific agents.

It is hoped that officials at the National Department of Basic Education and all school principals will acknowledge the existence and consequences of adolescent sexting and actively engage in addressing this issue. It is further hoped that the results of this study will stimulate future empirical research, debate, education and intervention among all relevant stakeholders.

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