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# Adolescents and self-taken sexual images

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# Adolescents and self-taken sexual images: A review of the literature

**Abstract:** Despite increasing public interest and concern about young people's involvement in the self-production of sexual images (or 'sexting'), there remains a dearth of research into their reasons for making and sending images, the processes involved, and the consequences arising from their experiences. This article reviews the motivational, lifestyle and personality factors influencing adolescent sexting practices and explores the research evidence within the wider context of debates around contemporary social and visual media cultures and gender. A systematic search of databases was conducted and eighty-eight records were identified for inclusion in the review. The findings reveal that sexting is remarkably varied in terms of context, meaning and intention, with the potential for consensual and non-consensual aspects of the activity. Whilst sexting can be a means of flirting or enhancing a sexual relationship, it can highlight potential vulnerabilities to victimisation or to participation in risky sexual practices. Sexting is also inextricably linked to social expectations of gendered sexual behaviours, with females often deriving less satisfaction from their experiences and being perceived more negatively by their peers. Further research linking adolescent motivations, well-being, relationships and lifestyles with the broader socio-cultural and media landscape will ultimately help drive understanding about the subject forward.

**1. Introduction**

In the last decade there have been considerable changes in the role that technology plays in young people's lives. Smartphones, in particular, enable adolescents to connect to one another, and to the world, through a range of social and visual media. Alongside the perceived benefits of online and mobile technologies, public concerns have emerged relating to young people's changing social communication practices. One adolescent practice to receive public attention is the self-production of sexual images (or 'sexting'). Sexting can be understood as the sending or posting of sexually suggestive text messages and images, including nude or semi-nude photographs, via mobiles or over the Internet. Definitions vary however and some studies may also refer to the receiving of texts and images, or explore an aspect of image content or sexting behaviour such as forwarding or sharing images (for discussion, see Klettke, Halford & Mellor, 2014; Drouin, Vogel, Surbey & Stills, 2013).

Despite an increasing number of studies aimed at identifying the prevalence of adolescent sexting, there remains a dearth of research exploring young people's motivations for sexting, along with their experiences of both making and sending images (see Klettke, Hallford & Mellor 2014, Döring, 2014). The aim of this review is to provide a clearer, more detailed summary of the existing literature by focusing specifically on research findings and discussions around young people's sexting practices and the influence of motivational, lifestyle and personality factors on their experiences. With social media providing a platform for many adolescent social interactions and, increasingly, their sexual exploration and behaviours, the review will explore these behaviours within a broader developmental framework of adolescent online and mobile practices and debates around gender and social/visual media cultures, including risk and identity creation. These issues are crucial in highlighting the contemporary cultural and technological environment within which sexting takes place and in assisting with future academic research, policy development and practice.

**2. Methodology**

Given the ever-increasing wealth of media-generated and academic literature examining young people's sexting behaviours, there is a surprising lack of quality research providing adolescents with a voice to explain their motivations and behaviours. Previous systematic reviews have detailed sexting prevalence and the factors influencing participation across the age spectrum (See Klettke, Hallford & Mellor 2014, Döring, 2014). However, as yet there has been no literature review specifically exploring the adolescent and young adult population. A decision was therefore made to generate a review focusing thematically on contemporary debates around young people's motivations for self-producing sexual images, the factors influencing their behaviours, and the potential psychological and behavioural outcomes. To move the debate beyond a more pathological focus these behaviours are explored within the literature on normative adolescent social, visual and media culture. This provides opportunities to highlight the relationships between young people's attitudes towards user-generated media, image construction, gender, and online and mobile practices.

The aim of the review was to identify articles covering both empirical studies and non-empirical research discussions relating to young people's personal motivations, perceptions and experiences of sexting – particularly in relation to the relatively unexplored area of why young people make and send images. The process of decision-making and the potential roles of gender and personality within this process are crucial in forming an understanding of adolescent engagement in sexting. Furthermore, research and discussion exploring the links between adolescent sexting and the developing media and visual culture were also included. Although the knowledge base in these areas remains comparatively weak, they are of considerable relevance to parents attempting to identify and deal with adolescent behaviours, and to practitioners working with young people who may be engaged in the activity.  Criteria for inclusion in the review were as follows:

- Research exploring the sexting behaviours of young people under the age of 25;

- Examination of young people's experiences of *sending* (rather than receiving or viewing) nude or nearly nude pictures or images via a mobile or on the internet;

- Discussions around any risks, issues or consequences related to young people's sexting practices.

A systematic search was conducted to minimise bias, thus contributing to more reliable findings and conclusions (Liberati et al., 2009) and essentially following the recommendations of systematic reviews (Centre for Reviews and Dissemination, 2008). Nine relevant databases were searched using the key words 'sexting', and 'self-produced sexual images', alongside the search terms 'adolescents', 'teens', 'young people', 'youth(s)' and 'social/visual/digital media', 'digital/sexual images', 'online/mobile technology', 'online/mobile risks' and 'cyberbullying/bullying'. The following bibliographic databases were searched: Academic Search Premier, ASSIA, ERIC, MEDLINE, PsyINFO, SCOPUS, Social Service Abstracts and Sociological Abstracts. These databases were selected to cover the broad range of research on sexting across the inter-disciplinary subject areas of psychology, sociology, health, media studies and education. A search of the 'grey literature' was also carried out using the search database ETHOS, in order to identify any dissertations or theses linked to the key topics.

In light of the extensive literature base and the continually changing nature of social and online media technology, the search was restricted to research and literature published between January 2009 and September 2014, written in English and appearing in peer reviewed journals. The search was conducted in September 2014. A visual summary of the process is presented as a flow chart in Figure 1.

**Figure 1: Flow chart of record identification, screening, selection and inclusion**
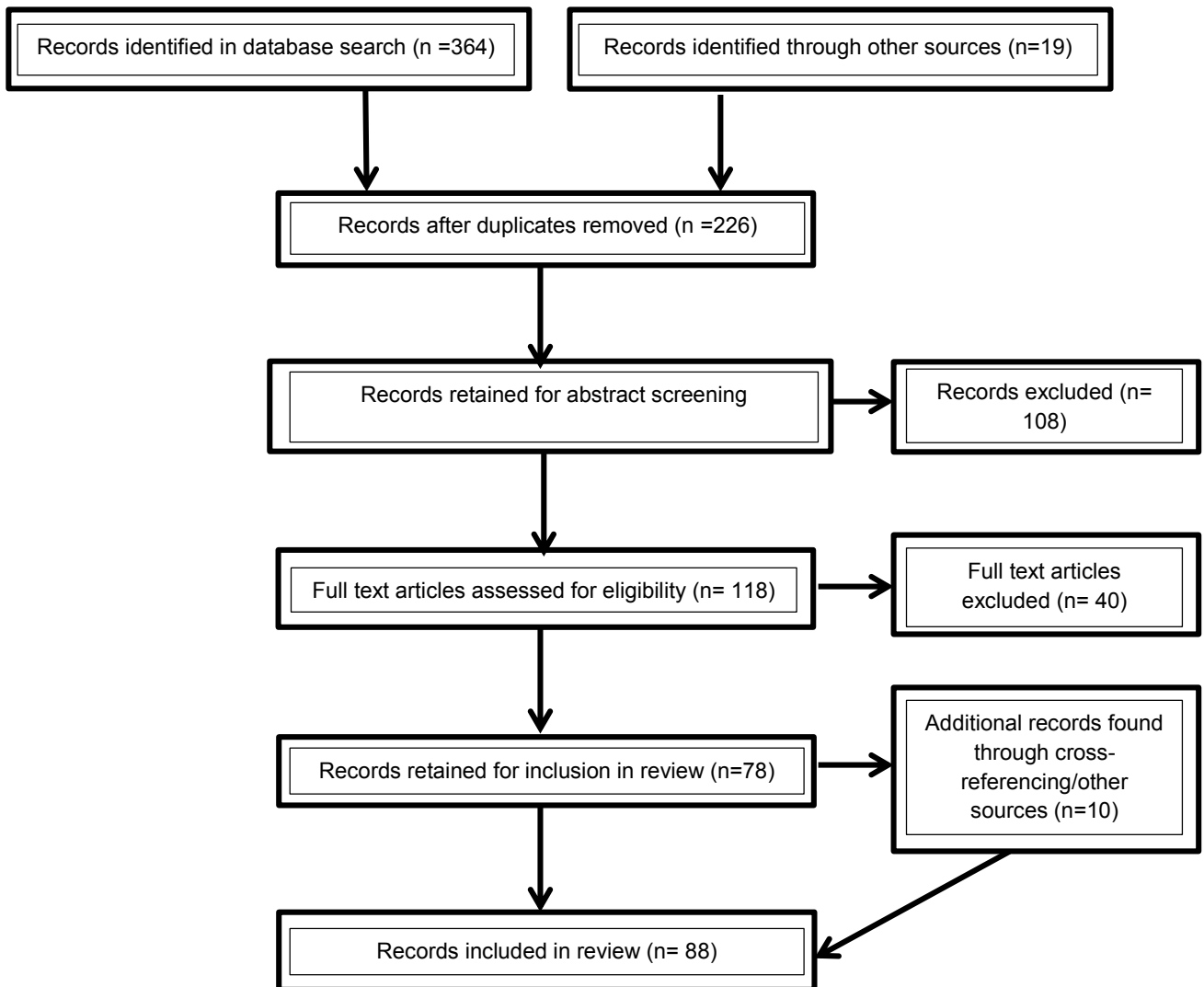


The initial bibliographic database search produced 364 articles. In addition to this, 19 articles were added following hand-searches through reference lists and further online searches. Of these 383 articles, 157 were excluded due to duplication.

The remaining 226 articles were appraised for inclusion by screening of the title and abstracts. A total of 69 these articles did not address the key areas of interest and were thus excluded. The remaining 118 articles were then assessed for eligibility on their full text. During this stage, any articles focussing on information about young people's sexual health or health promotion were excluded when not directly related to sexting experiences or the practices of self-producing sexual

images. Similarly, articles were excluded if they focused directly on information around internet or social media use, safety, and education, without specific reference to young people's sexting behaviours or concerns. Finally, given the vast international literature base on the legal aspects of sexting and debates around the law, a decision was taken to exclude this information during the search. This led to 40 further articles being excluded for not meeting the relevant research areas. The reference lists of the remaining 78 articles revealed an additional 10 relevant articles not previously captured by the online searches, including one dissertation. In total, 88 studies were identified for inclusion in the review.

As the review aimed to explore the range of existing research discussion and findings on the selected research areas, criteria were not established to rate the quality of articles, rather all material falling within the specified areas of research interest were included. Whilst these articles in no way cover the range and breadth of issues surrounding adolescent sexting, the systematic nature of the search ensures that the following results and discussion provide a comprehensive and up to date thematic organisation of the specified issues.

## 3. Results

### 3.1 Sexting Prevalence: age, gender and sexuality

In the context of this review, sexting can be understood simply as the sending or posting of sexually suggestive images, including nude or semi-nude photographs, via mobiles or over the Internet. However in light of broad and varied definitions of the activity, there have been considerable social and legal implications around sexting behaviours as well as limitations for comparative work across research articles and studies (see Drouin et al., 2013; Lounsbury, Mitchell and Finkelhor, 2011). In particular, there have been notable inconsistencies in the way that research in this area has defined the content of messages, (e.g. texts and/or images); the medium used to send them; and the relationship context within which the messages have been sent. It is also the case that many of the

definitions of sexting are dependent on a subjective evaluation, for example 'nearly nude', which again makes comparison difficult. For these reasons, estimates as to the prevalence of sexting behaviours continue to vary.

According to the Pew Research Centre study, four per cent of teenagers in the US have sent sext messages (Lenhart, 2009). Similarly, in a recent US study, Reyns, Henson and Fisher (2014) found that five per cent of respondents admitted to sending sext messages. However, further research has found that, among geographically located samples of youths, sexting estimates tend to fall anywhere in the range of 7 to 27 per cent (see for example, Dake, Price, Maziarz & Ward, 2012; Temple, Paul, Van den Berg, Le., 2012; Ricketts, Maloney, Marcum & Higgins, 2014).

Considered collectively across research studies it would seem that inconsistencies in project terminology and research aims have led to widespread variation in the estimated prevalence of sexting among young people. Yet despite differing findings, there is increasing recognition of a link between sexting and age. In the youth sexting literature, studies of adolescent samples show increasing sexting prevalence with increasing age (see for example, Strassberg, McKinnon, Sustaita, and Rullo, 2013; Lenhart, 2009; Dake et al., 2012; Cox Communications, 2009; Rice et al., 2012; Mitchell, Finkerhor, Jones & Wolak, 2012).

Findings on prevalence by gender are less clear, with some studies reporting similar rates of self-producing and sending sexual images between the genders (e.g. Lenhart, 2009; Dake et al., 2012; Rice et al., 2012) and others suggesting that either boys are more likely to engage in sexually revealing self-exposures (such as posting nude or nearly nude pictures or videos of themselves) (Jonsson, Priebe, Bladh & Svedin, 2014), or that more girls engage in sexting behaviours (Mitchell et al., 2012; Reyns, Henson and Fisher, 2014; Martinez-Prather and Vandiver, 2014). Further survey research, carried out with youths in the US, found that individuals who identified as sexual minorities (e.g. lesbian, gay, bisexual or transgender [LGBT]), were also more likely to have sexted than those identifying as heterosexuals (Rice et al., 2012).

### 3.1.1 Ethnicity and the socio-cultural aspects of sexting

Studies considering race or ethnicity as a predictor of adolescent sexting reveal mixed findings – although the activity seems to cross racial and ethnic groups (Peterson-Iyer, 2013). In a US survey of 1,289 high school students, Dake et al., (2012) found that sexting was more common among racial/ethnic minorities (African Americans 32%, Hispanics 23% versus Whites 17%). These findings are supported by other research evidence suggesting a greater prevalence of sexting behaviours amongst African-Americans (Rice et al., 2012; Winkelman, Smity, Brinkley & Knox, 2014) and Hispanic youths (Fleschler Peskin et al., 2013). In contrast however, research among college students by Benotsch, Snipes, Martin & Bull, (2013) reported that White participants had a significantly higher rate of sexting than non-White participants.

In terms of cultural factors in adolescent sexting behaviours, Baumgartner, Sumter, Peter, Valkenburg & Livingstone, (2014) examined individual/country characteristics as a means of explaining whether predictors of sexting are generalizable across countries and contexts. Using data collected from 20 countries included in the EU Kids Online Project, the authors found that traditionalism significantly predicted gender differences in sexting; with greater numbers of boys than girls engaging in sexting within more traditional countries. However, they concluded that country characteristics had no direct influence on adolescent sexting and may be less important in explaining individual behaviour than personality characteristics (Baumgartner et al., 2014:163).

In light of the various factors impacting upon young people's sexting experiences, attempts to quantify or establish prevalence rates remains inherently difficult; a fact noted in other reviews (see Döring, 2014; Lounsbury, Mitchell and Finkelhor, 2011). Variation in age groups and data collection methods, along with inconsistencies in project terminology and research aims only serve to compound attempts to establish an accurate picture of the nature of adolescent sexting at this time.

### 3.2 Research findings:  Motivations for sexting

Research to date has tended to focus primarily on sexting prevalence and participant characteristics, thereby leaving significant knowledge gaps about the nature of the activity (Walker, Sanci and Temple-smith, 2013). This has led to an absence of young people's voices on the process of self-producing and sending sexual images. However, drawing from the literature identified in the database searches, four primary motivations for adolescent sexing behaviours are apparent:

1. A form of flirting and/or gaining romantic attention.

2. Within a consensual relationship.

3. An experimental adolescent phase.

4. Pressure from partner/friend(s).

### 3.2.1 Sexting as flirting and/or gaining romantic attention

One commonly cited reason for sexting is to 'feel sexy' and excited by the 'thrill' of flirtatious behaviour (Henderson and Morgan, 2011; Dir, Coskunpinar, Steiner & Cyders 2013; Weisskirch and Delevi, 2011; Perkins, Becker, Tehee & Mackelprang, 2014; Renfrow and Rollo, 2014). According to Lenhart (2009), 66 per cent of teen girls and 60 per cent of teen boys who have sent sexual images say that they did so to be 'fun and 'flirtatious'. This may be linked to the fact that viewing sexting positively or with a favourable attitude has been positively associated with its practice (Strassberg et al., 2013; Ferguson, 2011). Richards and Calvert (2009) further found that in many instances young people seek to engage in flirtatious games and establish their own sexual agency by '…sending photographs of themselves in a playful manner – a high-tech form of flirting – using a forum that has become synonymous with their generation.' (Richards and Calvert, 2009:35)

The research also suggests that young people send self-produced images to pursue a sexual or romantic interest with someone who is not currently in a relationship with them (Englander, 2012; Lenhart, 2009; Henderson and Morgan, 2011; Kopecký, 2011). Sixty-five per cent of Englander's

(2012) sample admitted that images were sent with the anticipation of attracting 'someone they were interested in'. Additionally Temple and Choi (2014) report that young people view sending sext messages as a prelude to initiating actual sexual behaviours or a means of indicating a readiness for intimacy. Whilst a focus group study by Lippman and Campbell (2014) suggests that girls sometimes use sexting as a strategy for gaining the acceptance and attention of a potential partner, as well as a means of attaining popularity with boys.

### 3.2.2 Sexting in a consensual relationship

Within the existing literature there is evidence of an emerging 'normalcy discourse' (see Döring, 2014) that perceives consensual sexting as a normal, contemporary form of sexual expression and intimate communication within romantic and sexual relationships.

Englander (2012) found that the most common motivation for sexting, cited amongst 66 per cent of participants was 'because a date or boyfriend/girlfriend wanted the picture'. There is also a suggestion that self-producing images can be a 'pleasurable experience' (Stocker, 2014), with 52 per cent of Lenhart's (2009) sample of teenage girls who had sent sexually suggestive content admitting that they sent the image 'as a sexy present' for their boyfriend. Within a long-distance relationship sexting can also take place as a means of sustaining a level of intimate communication. In Drouin et al.'s (2013) study of motivations for sexting amongst college students, 26 per cent of those in a committed relationship cited their partner being far away as a reason for sexting, with the aim being to maintain intimacy during periods of physical separation.

Within a relationship context sexting is also frequently associated with positive expressions of mutual affection, bonding and trust as well as fun, flirting and as 'arousal' in anticipation of physical intimacy with the recipient (see Hasinoff, 2013; Karian, 2012; Lenhart, 2009; Stocker, 2014; Renfrow and Rollo, 2014).

### 3.2.3 Sexting as an experimental adolescent phase

Research suggests that some young people perceive sexting as a form of self-expression or a way of exploring and establishing their identity by experimenting with their sexuality (Dir et al., 2013; Lenhart, 2009; Henderson and Morgan, 2011). This might include, for example, spontaneous or playful instances of 'shared bravado or humour' outside of sexual contexts (Albury, Crawford, Byron & Mathews 2013; Chalfen, 2009; Lenhart, 2009). An Australian study by Goggin and Crawford, (2011) found that sexting could take place in non-sexual scenarios such as a party or workplace – often between friends of the same gender. In such instances, peer self-generated images could be taken between friends, for example, as a joke. During focus groups with young people, Bond (2011:598) further found that young people referred to sexual images as playing a potential role in 'relieving boredom, generating humour and gaining popularity' among their peers.

In other instances, young people use online activities and digital media as a developmental forum for experimenting with different types of sexual experiences (O'Sullivan, 2014), whilst simultaneously negotiating peer approval and acceptance (Vandeen Abeele, Campbell, Eggermont, & Roe, 2014). According to Chalfen (2009:263), descriptions of picture content suggest that a motivation for young people is 'looking good' and 'appearing desirable' in order to gain attention and obtain positive feedback about their looks from their peers. Such experiences have led Bond, (2011) to compare visual mobile technology to the 'bike shed' for previous generations whereby adolescents use (virtual) spaces to explore their developing sexual and romantic relationships by disclosing, sharing and exchanging sexual content.

### 3.2.4 Sexting as a response to pressure from partner/friend(s)

The AP-MTV Survey (2009) reported that 61 per cent of young people who admitted sexting said they felt pressured to do so on at least one occasion. In terms of where this pressure might come from, Walgrave, Heirman and Hallam (2013) found, in a survey of 498 adolescents aged 15-18 years, that the most important sources of social pressure were friends and romantic partners – particularly for females (see also Henderson and Morgan, 2011). Indeed, for some girls involved in romantic

relationships, consenting to 'unwanted' self-produced sexual images is a type of 'sexual compliance' or an 'undesirable price' they have to pay to maintain a good relationship (Lippman and Campbell, 2014; Drouin and Tobin, 2014; Renfrow and Rollo, 2014).

Alongside overt pressure from partners, young people's perceptions of peer norms and attitudes can also influence and drive their sexual behaviours (see Jewell and Brown, 2013). This typically involves using sexting as a means of gaining peer respect and popularity (Vandeen Abeele, Campbell, Eggermont & Roe, 2014). Boys in particular may seek to illustrate to their ability to chat to girls and to negotiate access to seeing their bodies. This includes tagging, sending and sharing pictures of girls' bodies, particularly their breasts, in order to prove their sexual activity and to gain status among their peers (Ringrose, Harvey, Gill, & Livingstone 2013). A link between sexting and 'popularity' is supported by Vandeen Abeele, Roe & Eggermont's (2012) study whereby adolescents who were perceived as more popular reported having sent (or received) sexually explicit text messages more frequently.

Taken together, the research evidence on young people's motivations suggests that despite some notable pressures and anxieties around sexting, in the vast majority of cases the process takes place within either a romantic relationship or as a means of adolescent explorations of sexuality and identity creation. These findings correspond with the 'experimental' episodes of sexting identified in Wolak and Finkelhor's typology of US law enforcement cases - wherein sexting incidents grow out of 'typical adolescent impulses' to 'flirt, find romantic partners, experiment with sex and get attention from peers' (Wolak and Finkelhor, 2011:3).

### 3.3. Personality, risk and adolescent sexting

In addition to research exploring the motivations for young people self-producing sexual images, attention has focused on the potential relevance of psychological wellbeing predictors. Researchers have questioned whether sexting may represent a marker for adolescent impulsivity, sexual risk-

taking and problematic or age-inappropriate sexual behaviours. Although findings differ widely across studies, there is some emerging evidence to suggest that individuals who report sexting are more likely to be sexually active (Dake et al.,

 2012; Rice et al., 2012; Temple et al., 2012; Dir et al., 2013; Houck et al., 2014; Sorbring, Skoog, & Bohlin, 2014; Temple and Choi, 2014); to have engaged in sexual activity at a young age (Englander, 2012; Rice et al, 2012; Temple et al, 2012; Perkins et al., 2014); to have taken part in recent high-risk sexual behaviours (e.g. multiple partners, oral and anal sex, and unprotected sex) (Benotsch et al, 2013; Dake et al., 2012; Englander, 2012; Rice et al., 2012; Ferguson, 2011; Perkins et al., 2014; Crimmins and Seigfried-Spellar, 2014). Bauermeister et al., (2014:606) further report that young men (aged 18-24) who have sex with other men, have a higher prevalence of sexting than in studies of their heterosexual counterparts. The authors nevertheless note that this may be attributable to a potentially greater use of online and mobile technologies to explore their sexuality and to meet prospective partners.

Recent research findings also suggest a link between sexting behaviours and higher rates of problematic alcohol and recreational drug use (Temple et  al., 2014;  Reyns, Henson and Fisher, 2014; Perkins et al., 2014; Benotsch et al., 2013; Dake et al., 2012; Englander, 2012; Dir et al., 2013;)), with sexting acting as a potential mediator between alcohol use and unplanned, causal sexual encounters (or 'hook ups') among college students (Dir, Cyders and Coskunpinar, 2013). Individuals who sext have also been found to have involvement in other higher risk behaviours, including interpersonal violence or tobacco/drug abuse with sex (O'Neal Hagal, Cummings, Hanse, & Ott 2013).

Alongside evidence of risk-taking behaviours, research exploring links with individual personality traits has found that young people who engage in sexting behaviours may be more impulsive; with respondents demonstrating a correlation between sensation seeking and negative urgency (Baumgartner et al., 2014; Dir et al., 2013) as well as involvement in sexually arousing

communications (Beyens and Eggermont, 2014). In a study of 'at-risk' youths aged 12-14 years, Houck et al., (2014) found that sexters had more difficulties with emotional awareness and lower self-efficacy for managing their emotions, potentially making them more vulnerable to impulsive actions driven by feelings (Houck et al., 2014). Research also suggests low self-control may be predictive of young people producing online sexual material due to a lack of thought about the potential consequences of their actions (Kerstens and Stol, 2014; Reyns, Henson and Fisher, 2014). Two further studies report links with personality traits – in a sample of undergraduate students, Dir et al., (2013) found a combination of high levels of neuroticism and low levels of agreeableness to be predictive of self-producing and distributing images (see also Delevi and Weisskirch, 2013), whilst a study of Hispanic female college students found that histrionic personality traits correlated with sexting behaviours (Ferguson, 2011).

### 3.3.1 Sexting and emotional and psychological well-being

Research has further sought to explore the relationship between young people who engage in sexting and their relationships, lifestyles and emotional well-being. Dake et al., (2012) found a correlation between self-producing and sending sexual images and being depressed, having contemplated or attempted suicide in the past year, having been cyber or indirectly bullied, and having encountered physical force within a relationship (e.g. hit by a boyfriend or girlfriend or being forced to have sexual intercourse). There is some evidence that females who experience anxious attachment are more likely to consent to unwanted sexting out of fear of losing their partners (Drouin and Tobin, 2014). In their research with Swedish adolescents, Sorbring et al. (2014) found that engaging in online sexual/romantic activities was, for girls, linked to poor relationships with mothers, fathers and peers and for boys, poor relationships with fathers. Furthermore, the authors report that females engaging in online sexual activities were more likely to have low body self-esteem. Despite these findings, other studies have noted no direct correlation between either

sexting and psychological wellbeing (Temple et al., 2014; Gordon-Messer, Bauermeister, Grodzinski & Zimmerman, 2013) or problematic family relationships (Jonsson et al., 2014).

There remains limited research exploring sexting and psychological well-being. What information does exist has tended to offer, at best, only tentative explanations for the links between sexting, risk and personality. Although sexting might be viewed as a potential indicator of other risky sexual behaviours, researchers commonly highlight the importance of additional qualitative studies to address further risk correlates and relationship dynamics as well the relevance of potential protective factors around the role of personality and emotions (see Benotsch et al, 2013; Bauermeister, 2013; 2014; Temple et al., 2014).

## 3.4. Consequences of sexting: The 'deviance discourse'

Whilst the motivations for sexting, outlined above, are in no way new to adolescence, the permanence of the images generated through the course of sexting can create long-lasting consequences (Houck, 2014). Concerns typically focus on this permanence and the corresponding 'risk of harm' on both an individual and social level (Lunceford, 2011). Although the research findings suggest that many adolescents perceive a range of positive aspects associated with sexting, media and public discourse continue to promulgate the adverse psychological and social harms to arise from sexting behaviours.

Research exploring young people's attitudes to sexting also suggests that many individuals are aware of potential adverse consequences (see Kopecký, 2011; Henderson and Morgan, 2011). Seventy-three per cent of Kopecký's (2011) sample cited possible negative outcomes, including 'exploitation or bullying', 'legal ramifications', 'disciplinary punishment from school' and 'public disgrace'. Mitchell et al., (2012) also found that individuals can experience a negative emotional impact after sexting. Twenty-one per cent of their sample reported feeling very or extremely upset, embarrassed or afraid.

### 3.4.1 Cyberbullying and non-consensual image sharing

In Lenhart's (2009) study, one common theme to emerge from focus group discussions was a concern about images being shared with others outside a consensual relationship. Goggin and Crawford (2011) reported several variations as to how material came to be shared. This included personal mobiles being accessed; unsolicited images being forwarded in order to embarrass or harass others; and circulation following the end of a relationship. There is also some evidence to suggest that sexts might be forwarded or displayed in order to gain peer approval, or for fun (Bond, 2011; Lippman and Campbell, 2014).

The psychological harm and stress to arise from the widespread purposeful sharing of private sexual images has been well documented in media commentaries. Sometimes referred to as 'revenge porn', the term describes the non-consensual distribution of intimate/sexual images. Whilst the images may have been taken consensually, distribution occurs without the other person's knowledge or consent, usually following a relationship break-up. Explicit images can be distributed via mobiles and social media, leading to concerns that such images may re-emerge in later life, for example during future searches for jobs or potential romantic partners.

The negative social stigma arising from non-consensual image sharing and the degree of 'malice' that can be involved in the activity has led many commentators to highlight links to cyberbullying. Cyberbullying refers to the use of media and visual technology to socially exclude, threaten, insult or shame another person and can include, for example, online harassment, cyberstalking, denigration and exclusion (Livingstone and Smith, 2014: 638). Unlike traditional bullying, there is no limit to the time or location of the bullying, information spreads more rapidly and it is easily accessible (Bilic, 2013). Research exploring the links between sexting and cyberbullying has found that being female and a sexter may increase the relative risk of multiple types of cyber victimization (Reyns, Burek, Henson & Fisher, 2013), whilst Jonsson et al., (2014) suggest that youths who engage in voluntary sexual exposures online may be more likely to both participate in online harassment and to be

victims of online harassment themselves; with boys in particular experiencing bullying or having sexual images of themselves spread without their consent (Jonsson et al., 2014).

In their US review of police case files Wolak and Finkelhor (2011) reported that youths could experience threats, blackmail and on and off-line abuse as a result of their sexting behaviours being made public. In a number of tragic, well-documented cases, such victimization and widespread sharing of pictures has corresponded with negative psychological outcomes including feelings of sadness, anger and anxiety disorders (Korenis and Billick, 2014; Bilic, 2013), as well as depression and ultimately, suicide (Siegle, 2010).

There remains a lack of data on the prevalence of non-consensual image sharing, particularly among adolescents. Mitchell et al., (2012) found that photographs were distributed in 10 per cent of incidents when youths appeared in or created images, and in their study of US law enforcement cases Wolak, Finkelhor & Mitchell (2012) found that in 78 per cent of cases, a cell phone was the most common form of distribution and in 63 per cent of cases the only form of distribution. The authors concluded that no online distribution appeared to have occurred. In another study of college undergraduates, Perkins et al., (2014) reported that 19 per cent ($n$ = 12) of individuals had semi-nude images forwarded and 12 per cent ($n$ = 4) had nude images forwarded.  Although the numbers are small, the findings nevertheless highlight a disconnect between some individuals' expectations about the intended recipients of the images and the actual outcome. Moreover, Powell, (2010) reports that sexual images of women and girls are disproportionately created, sent and redistributed without consent.

### 3.4.2 Sexting, sexual violence and exploitation

Within the academic and public domains, specific attention has been paid to the risks that young people - and in particular adolescent girls - may expose themselves to by engaging in sexting (see for example, Lunceford, 2011). Concerns have tended to focus on the potential for young people to have sexual communication and contact with others (McCartan and McAlister, 2012). This might

include sexual harassment, online grooming, sexual pressures and 'objectification via the creation, exchange, collection, ranking and display of images' (Ringrose, Gill, Livingstone & Harvey 2012:8). In their typology of sexting based on US case-law, Wolak and Finkelhor (2011) highlight a range of 'aggravated' sexting incidents carried out by adults and youths, with individuals intending to harm, harass or embarrass others through behaviours that include deception, exploitation and abuse.

It is nevertheless clear that not all young people who engage in sexting will be subject to negative social, emotional or legal consequences. Rather, according to Houck et al., (2014) some adolescents may be more susceptible to such consequences because of specific vulnerabilities. Sorbring (2014) suggests that certain groups of younger girls may sometimes be more negatively affected by sexual activities online (e.g. grooming or sexual abuse). This might include those who are not yet mature enough to enjoy offline sexual activities and those with low body-esteem and poor relationships who wish to explore sexual and romantic activities in a more secure, anonymised environment. Young people may have more negative experiences when they interact with people relatively unknown to them online and lack an intrinsic motivation for engaging in sexual interaction (Kerstens and Stol, 2014). In their national survey of Dutch adolescents, the authors also report a strong relationship between online sexual interactions and other negative experiences such as being cyberbullied (Kerstens and Stol, 2014). Furthermore, Dir and Cyders (2014) suggest that young people may expose themselves to potential risks when combining sexting and alcohol use. For example, the authors found that males are more likely than women to assume sex will occur following sexting and this can potentially lead to risks around miscommunication of consent and sexual violence or assault.

It is thus possible that certain groups, or sub-groups of young people, may unwillingly become the victims of unwanted sexual solicitations or exploitation. Certain characteristics and life experiences, including a history of offline physical or sexual abuse, depression, isolation or a lack of support and guidance within the family, may leave some young people more vulnerable to participating in

relationships with individuals willing to exploit or initiate sexual abuse (Mitchell, 2010:8). Additional risk factors for online sexual solicitations include young people who use chat rooms, send personal information to people they have met online, and talk about sex online (Mitchell, 2010). Gender and ethnic differences have also been cited. Tynes and Mitchell, (2013) found that girls experience significantly more sexual solicitation than boys, with Black girls in particular more likely to receive requests for sexual pictures of themselves (Tynes and Mitchell, 2013:14).

### 3.5. The cultural context: Adolescent social and visual media practices

To further understand adolescent sexting behaviours, one proposed argument is to contextualise these behaviours within the 'larger media landscape in which [young people] reside' (Lunceford, 2011:110; Van Doorn, 2011; Chalfen, 2009; Ringrose et al., 2012). Chalfen (2009) claims that young people now live at the intersection of four different sub-cultures (media, techno-culture, visual and adolescent), characterised by a multi-dimensional mediated life where wherein individuals are both media makers and consumers and digital technologies and cameras are embedded into everyday life. Within this context, young people are driven by curiosity, identity seeking and the pushing of normative boundaries (see Chalfen 2009:260).

Arguing along a similar theme, Van Doorn (2011) suggests that new technologies provide both a new form of the 'normal' for young people's cultural activities and transcend their relationships into digital spheres of reality via social media networks. As this happens, it becomes increasingly difficult to separate the materially concrete, - and instead, the 'virtual' becomes an extension of young people's everyday lives (Van Doorn, 2011; Ringrose et al., 2012). In this sense, social connections resembling the public acts of 'hanging out' in coffee shops and around shopping malls are instead built and developed online via instant messages, blog sites, websites and social and chat networks (Horst, Herr-Stephenson and Robinson, 2010).

According to Simpson, (2013) these technological advancements not only provide a new means of developing and maintaining relationships, but also provide children with greater power and opportunities to self-define themselves. This creates spaces within which to establish alternative forms of identities. Young people therefore actively engage with social and visual media in order to control their personal activities (Zemmels, 2012). Indeed, Siibak (2009) argues that contemporary media is used not only to communicate but also to create and manage visual impressions and to gain popularity among the peer group through positive self-promotion. This might, for example, involve the selection of social media profile pictures to project a desired image. Young people become very conscious and strategic in their approaches and make rational decisions by combining self-beliefs and the expectations of others to form positive self-impressions (Siibak, 2009). As King (2012) reports, 'the self' no longer needs to be constructed in real time or tied to reality, instead, young people can craft and edit fictitious images and personas. In doing so, adolescents not only shape their identities through these new media constructions but they 'simultaneously challenge conventional notions of how children develop' (Simpson, 2013:695).

### 3.5.1 Media and Sexuality

Within this new merged culture between on and offline behaviours, media and academic commentators have drawn attention to the increasing sexualised consumer culture and sexualisation of youths. In the past decade or so, young people's 'sexuality' has become increasingly visual and commercialised, becoming thematised in popular culture across, for example, social media sites, films and music videos (Van Ouytsel, Walrave and Van Gool, 2014). Furthermore, it has become progressively easy for adolescents to access sexually explicit and provocative materials via media technologies and to use these materials to aid their understanding of sexuality and the self (Korenis and Billick, 2014). Within this new cultural and sexualised landscape, activities such as sexting become part of young people's sexual culture.

Chalfen (2009) argues that sexting, like other kinds of user-generated media, might best be viewed as a new iteration of previous practices - the development of digital technology, the internet and cameras is a means of progressing communications, with the 'sexting phenomenon' perceived as a 'modern extension of previous ways of sharing words and images' (Chalfen, 2009:262). These images are constructed using a visual language not dissimilar to other images found across social media, with teens choosing to document their sexuality alongside the publicising of their daily personal lives (Curnutt, 2012). The activity thus highlights the increasing intersection between computer technology and human interaction (Dir, Cyders and Coskunpinar, 2013) and challenges distinctions between young people's public and private lives and between 'pornography and photography' and 'appropriate and inappropriate sexual intersections' (Hawkes and Dune, 2013: 623). The relative ease with which digital images can be captured and distributed not only makes sexting 'easy' but, according to McCartan and McAlister (2012), may also help to 'neutralise its consequences in the minds of those embarking on it' (2012:264).

## 3.6. The gendered nature of sexting

Within this sexualised youth culture the issue of gender has become increasingly significant to debates around sexting practices. Recent research findings suggest that females may be more likely to send self-produced sexual images than males (Mitchell et al.,2012; Reyns, Henson and Fisher, 2014; Martinez-Prather and Vandiver, 2014) whilst males may be more likely to receive sexts (Strassberg et al., 2013; Gordon-Messer et al., 2012). This difference is of significance when considering the wider social context and gendered nature of sexting experiences (see for example, Temple et al., 2014; Ringrose et al., 2012; Englander, 2012).

Two primary issues are evident within this body of literature:

### 3.6.1 Girls are viewed differently in the process of making and distributing images

Livingstone and Haddon's (2009) EU Kids Online literature review suggests that whilst technological advancements provide opportunities for enhanced social communications, they simultaneously bring a number of potential risks for females. Most evident is the widespread sexual double-standards pertaining to male and female ideas about identity and sexual regulation. According to the American Psychological Association (2010) the 'sexualization' of females in society encourages girls to see their value coming directly from their sexual appeal. Yet whilst modern culture promotes female sexiness, research suggests that girls must nevertheless contend with the fact that they can also be punished and shamed for their normal sexual expression (see for example, Ringrose et al., 2013; Angelides, 2013).

This is of particular note within the context of self-produced sexual images, whereby young people's involvement in sexting is inextricably linked to both the cultural context and the experience of peer pressure: boys may seek to be held in high regard by their peers for producing and showing off pictures of girls, whereas girls are unlikely to elicit any peer approval for producing and sending sexual image content (Ringrose et al., 2012). Rather, females may be more likely viewed as putting themselves at risk by their irresponsible behaviours and misplaced desire for male attention (see Lenhart, 2009; Hasinoff, 2013; Karian, 2012; Ringrose et al, 2012; 2013). They also face potentially harsh criticism, with sexual double standards attributing moral responsibility to the girl for sending a picture (see also Ringrose et al., 2012). This is most notable during any wider distribution of images, whereby inherent moral responsibility for the outcome is attributed to the female for self-producing the images, rather than those involved in their forwarding (Hasinoff, 2013; Ringrose et al., 2013). In their 2012 study, Ringrose et al. found that in contrast to boys often receiving praise for displaying masculinity in self-taken images, girls' behaviour was quickly judged, often being labelled by their peers as a 'sket' or a 'slut'.

From this perspective, sexting is far from gender-neutral and instead is best understood as being shaped and exacerbated by social perceptions of gendered 'norms', with girls pressured and

sexualised by a youth culture driven by a broader 'sexualised' society (Simpson, 2013). In this respect, Ringrose et al., (2012) claim that sexting might be understood as an online extension of the sexual harassment that female school students already experience in their daily lives.

### 3.6.2 Girls have more negative experiences of sexting

Although in some cases girls undoubtedly consent to taking and sending self-produced sexual images, this does not mean that the activity always occurs in a context free of coercion (Hasinoff, 2013). The research suggests that many females are not only more likely to view the potential negative consequences of sexting (Samini and Alderson, 2014), but may also be vulnerable to online and offline sexual harassment, with males more likely to coerce or put pressure on girls to produce and share images of themselves (Lenhart, 2009; Henderson and Morgan, 2011; Englander, 2012; Ringrose et al., 2012; Walker et al., 2013). As Hasinoff (2013) notes, teenage choices about how to express their gender and sexual identities occur within a social context '…in which sexual harassment from peers is ubiquitous' (2013:8).

In a study of 618 young people Englander, (2012) found coercion to be twice as common among girls as among boys. Moreover only six per cent of female and four per cent of male sexters reported that a stranger online had been the source of the pressure. Rather, the young people's peers – and most notably boyfriends – were most likely to be responsible for applying coercion to send self-produced sexual images.

Alongside the initial pressure to make and send an image, research by Temple et al., (2014) found that of those who had been asked to sext, girls were significantly more likely than boys to be 'bothered a great deal by it'. Furthermore, research by Henderson and Morgan, (2011) suggests that females are more likely to view sexting as causing serious negative consequences; with teenage girls reporting being 'disturbed' and 'traumatised' by the unauthorised distribution of their images (see Powell, 2010; Ringrose et al, 2012). For some authors, this distribution ultimately reflects another

means of controlling and exerting power over women and in this regard, girls may in some ways be 'disproportionately impacted by sexting behaviours' (Peterson-Iyer, 2013:96).

**4. Discussion and conclusions**

This review has highlighted both the range of existing research and debate around adolescent and young adult sexting and the surprising lack of quality in-depth research aimed at exploring context, personality and gender within young people's experiences and consequences of the activity. Indeed, this review supports the findings of Klettke, Hallford & Mellor (2014) whereby a number of methodological constraints are notable across the research field. These include a focus on survey data and self-selected samples, lack of validated measures and reliance on self-report data: factors which have reduced the generalizability and explanatory power of some findings and led to a largely 'disparate' literature base.

Nevertheless, by moving beyond previous systematic reviews to provide a more focused, detailed account of the existing research on young people's sexting behaviours, the present review draws attention to the complex range of motivations for making and sending self-produced sexual content. Findings suggest that sexting conduct can be remarkably varied in terms of context, meaning and intention. For some young people self-producing images is a means of flirting and teenage experimentation, or a way of enhancing a sexual relationship. For other young people however, sexting practices may be a 'marker' of further risk (Houck et al., 2014:e277), for example, in terms of engaging in early sexual behaviour and risky sexual practices or by demonstrating a potential vulnerably to victimisation, cyberbullying or exploitation.

Whilst a number of research studies highlight the potential negative outcomes of sexting behaviours, critics of a deviant discourse argue that this approach neglects to address that young people may derive pleasure from their experiences and enjoy sharing sexual images consensually. Indeed, Hasinoff (2013) points out that in order to accurately recognise non-consensual, harmful,

malicious behaviours, it is a prerequisite to understand that sexting can be consensual (2013). Powell and Henry (2014) therefore suggest that there is a need for more 'nuanced understandings of sexting' to distinguish between the 'consensual and non-consensual creation and distribution of sexual images' and to more usefully inform policy making and educational resources.

Recognising a distinction between those young people who willingly seek to make and send sexual images, and those who feel some element of coercion, is important within gender debates. Issues around female sexting are often inextricably linked to broader moral concerns about the sexualisation of girls within popular culture and the pressures they face to live up to gendered sexual ideals (Hasinoff, 2013; Karaian, 2012). There is evidence that some girls may have more negative sexting experiences, with the potential for partner and peer pressure to make and send images, and the need to negotiate the social and cultural double standards of female sexual reputation if their activities are made public. However, in contrast to these concerns, some authors have advocated sexting as an opportunity for females to embrace sexual images as a self-mediated practice of creativity and self-reflection (see for example, Hasinoff, 2013). Additional qualitative research will serve to further deconstruct the influence of relationships and social pressures on female sexting practices and consequences.

Alongside the issue of gender, the existing research provides a mixed picture regarding the potential links between sexting, young people's personality traits, lifestyle choices and their risk-taking. Although some young people may be more likely to experience negative consequences and behavioural outcomes, Sorbring et al., (2014) rightly query whether these outcomes are linked only to certain sub-groups or under certain conditions. The challenge for future enquiry will be to provide evidence-based findings on the links between context and personality and well-being factors in order to address important research questions.  For example, do some adolescents self-produce images under the influence of substances that impair their judgement, making them less inhibited and concerned about the consequences? Are there individuals more likely to actively seek out 'risk-

taking' opportunities for sexting? And where vulnerabilities exist, do young people self-produce sexual content as a way to derive attention and enhance low self-esteem or, alternatively, are their insecurities derived from negative online experiences? Moreover, as Sorbring et al., (2014) conclude, any discussions aimed at driving discussion of the topic forward also require attempts to understand the direction of the links between specific factors.

Contextualising young people's experiences within a broader socio-cultural and contemporary media landscape further highlights the importance of recognising sexting behaviours as part of the visual, image-saturated media culture within which young people conduct their daily online and mobile activities. According to Dir, Cyders and Coskunpiner, (2013) it is also necessary to reconcile young people's actions with the changing perceptions around adolescent sexual identity, risk and sexualisation and the increasing intersection between on and offline behaviours. Only within this broad framework of understanding will it be possible to better understand the 'very different kinds of concerns, ethics and aesthetics that pertain to different sexting scenarios' (Albury and Crawford, 2012:468).

**4.1 Conclusions**

Further consideration of the various factors influencing young people's experiences of self-produced sexual images is undoubtedly required; including more theoretically informed research and in-depth qualitative exploration of potential links with adolescent motivations, lifestyle and relationship factors. Indeed common to a number of research findings is not only the ongoing gap in rigorous and theoretically-informed research about sexting (Reyns, Henson and Fisher, 2014; Walker, Sanci and Temple-Smith, 2011) but the need for recognition of both the multifaceted nature of sexual interactions and the importance of further unpicking these complex interactions to reveal what sexting means to young people, their reasons for sexting, the specific contexts in which the activity occurs, and the consequences that follow on from their sexting experiences.

Going forward, the review illustrates the importance of utilising a more psychopathological approach to understand adolescent behaviours within a developmental framework of normative and often gendered online behaviours. Doing so will promote understanding about the significance of sexting to young people, whilst still recognising the risks, pressures and vulnerabilities that some adolescents face.  Acknowledging the ever-changing sexualised media landscape within which young people conduct their daily activities is also vital to aid comprehension and support around child protection and the policing of online images. Further evidence-based findings aimed at recognising the multiplicity of personal, lifestyle and socio-cultural factors influencing sexting behaviours will not only enhance existing knowledge but ultimately lead to more appropriate and relevant ways of educating parents and professionals working with young people.

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