# REVENGE PORN: THE PREVALENCE AND CHARACTERISTICS OF PERPETRATORS AND VICTIMS OF NON-CONSENSUAL IMAGE SHARING

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## Thesis Abstract

This thesis explores research evidence for when sexting goes wrong. More specifically, it investigates the prevalence of when sexual images are forwarded to those not originally intended for, and the characteristics of those who forward images, and those who have their images forwarded on to third parties. A systematic review examined research investigating the prevalence of the sharing of sexual imagery with third parties. This found that the majority of research has been carried out on student populations, with females accounting for a significant proportion of the participants. Sexting as a research area is receiving an increasing amount interest. Too broad or too narrow definitions make establishing a base rate prevalence difficult to ascertain. In addition, a lack of standardised questionnaire to establish prevalence compounds this further. Furthermore, in completing this systematic review it was revealed that a further identification the characteristics of those who forward images (perpetrators), and those who have images forwarded to third parties (victimised) is required to gain a further understanding of potential risk factors involved in this. Further analyses using the data within systematic review revealed that there is no correlation between the year of publication and the prevalence of forwarding images.

An empirical research study explored the problem-solving ability, impulsivity and self-esteem of individuals who had forwarded a sexual image of another without the consent of the individual depicted in the image/video. Using the Social Problem Scale-Revised (SPSI-R; D'Zurilla, Nezu Maydeu Olivares, 2002), perpetrators were found to have significantly higher scores on the impulsivity and carelessness subscale, and the positive problem orientation scale than those who had not shared an image. Perpetrators were also found to have significantly higher levels of impulsivity using the The Barratt Impulsiveness Scale-11 (Patton, Stanford, & Barratt, 1995). It further explored the impact of coping and levels of shame experienced by those who had been threatened or had a sexual image of them shared. Levels of shame and coping were found to be similar within those who had been threatened and those who had an image of them shared.

A critical analysis is presented of the SPSI-R (D'Zurilla et al., 2002), a widely used psychometric tool within forensic populations. It has good validity within multiple areas, although it may be necessary to consider impression management when using it due to its high face validity. Caution must be used when applying it within forensic populations due to a paucity of normative data for this specific population.

Finally, a media analysis sought to examine cases where an individual has been found guilty of sharing or threatening to share a sexual image without the consent of the individual depicted. Characteristics including the gender of the offender/victim, prior intimate relationship history, any additional offences, whether or not a motive was financial gain, as well as the law used to prosecute the case were considered. The afore mentioned characteristics reported within the media analysis did not appear to be associated with the sentence given to the perpetrator. This thesis provides a further understanding of the non-consensual sharing of sexual images, and implications are discussed.

## Thesis Overview

The present thesis aims to explore the area of non-consensual image sharing and revenge pornography. More specifically, it aims to gain further understanding of those at risk of engaging in the sharing of images without consent, and those who are victimised by it.

Chapter two systematically reviews the current literature to date on the topic of non-consensual image sharing. The aims of the systematic review are to identify and synthesise findings from previous research that have explored the prevalence and attributes of individuals who share sexual images of others, and the prevalence of those who are victims of having sexual images of them shared with a third party.

Chapter three is an empirical research study exploring the prevalence of non-consensual image sharing. In addition to this, the problem solving ability, impulsivity levels and self-esteem in perpetrators of this act are explored, as well as the self-esteem, coping strategies and experienced shame in victims who have had this happen to them. This allows for a better understanding of this research area.

Chapter four provides and overview and critical evaluation of a popular psychometric tool used within numerous populations; the Social Problem Scale Inventory-Revised (D'Zurilla, Nezu, & Maydeu-Olivares, 2002). Multiple measurements of validity are considered, including face, concurrent, predictive, construct and content validity, as well as the reliability and overall utility of the use of the tool within forensic populations. The limitations of the tool are also discussed.

Chapter five is a media analysis which explores the characteristics of cases where non-consensual image sharing has been proved within the United Kingdom's court system. It seeks to explore common themes and characteristics of cases where this has occurred as well as the sentences and methods of disposal that perpetrators in these cases have received.

Finally, Chapter six concludes this thesis by initially providing an overview and discussion of the preceding chapters and the findings in relation to the aims of this thesis: 1) To gain an understanding of the prevalence of non-consensual sharing of sexual images; 2) to understand some of the characteristics of individuals who engage in this behaviour; 3) to understand the experiences of victims of non-consensual image sharing; 4) to critically evaluate the SPSI-R (D'Zurilla et al., 2002) and its application within forensic populations, and finally, 5) to gain an understanding of the characteristics and sentence disposals in cases of revenge pornography that have been proved within the British court system. Consideration is paid to future directions of research in this area.

## Authorship Declaration

During this period of study I have been supervised by Dr Ruth Tully and Professor Kevin Browne. Dr Ruth Tully supervised the psychometric critique included within this thesis (Detailed below), and Professor Kevin Browne supervised the systematic review. Joint supervision was provided for the media analysis and the primary research study.

The following co-authorship declaration concerns the critique of The Social Problem Solving Inventory that is presented in Chapter 4 of this thesis.

Chapter 4 has been published in the International Journal of Offender Therapy and Comparative Criminology. Dr Ruth Tully supervised and contributed to this chapter and is a co-author of this.

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I did it.

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# CHAPTER 1

## Introduction to thesis

### Sexting

Sexting is the act of "sending, receiving, or forwarding of sexually explicit messages, images, or photos to others through electronic means, primarily between cellular phones" (Klettke, Hallford & Mellor, 2014 p.45). The rapid development of mobile phones and social media appears to have thrust the issue of sending sexually explicit messages into the media in recent years, with this area gathering research interest and exploration. The current research around sexting has included understanding sexting and related behaviours and understanding the motivations behind sexting. Furthermore, researchers have sought to understand the psychological, emotional and social consequences of sexting as well as seeking to develop guidelines that aim to increase our understanding of dealing with disclosures of sexting in different contexts (i.e. schools, judicial system). Klettke et al.'s research (2014) indicates that for sending sexts with photo content the prevalence rate differs between adolescents and adults; with the average rate for adolescents aged between 10 and 19 being 11.96%, and the average prevalence rate for adults being 48.56%. This implies that prevalence rates appear to correlate with an increase in age. In relation to gender, females have been found as more likely to send a sext (AP-MTV, 2009) and males are more likely to receive a sext (Strassberg, McKinnon, Sustaíta & Rullo, 2013). Furthermore, the majority of young adults use a form of social networking application and therefore the introduction of such is bound to play a key role in the social communication between individuals (Hampton, Goulet, Rainie & Purcell, 2011). Van Ouytsel, Van Gool, Walrave, Ponnet and Peeters (2016) further considered the most common social media networks for sending sexual photographs, and indicated that Snap Chat and WhatsApp were the most popular platform for sending sexual photographs (due to the control the sender has over how long the photo is viewed for on the former, and the instantaneous nature of sending it via WhatsApp). In terms of the motivations for sending sexual messages, Jonsson, Bladh, and Priebe (2015) reported that overtime the use of the internet has become intrinsic to everyday life, and that being online is a natural part of life. This means that many individuals have

unlimited internet access and coupled with owning a mobile phone this means that individuals may be spending increasing periods online and texting. Furthermore, remaining in contact with others is by nature important to individuals that exchanging sexual images may trigger a response, be it a negative or positive reaction. There are a number of motivations for engaging in sexting that have been identified by researchers and outlined by James, Sargant, Bostock and Khadr (2017); to flirt with a partner/potential partner, because they are in a trusting relationship, to show off, to maintain a long distance relationship, to peer pressure (from friends or partner). Drouin, Vogel, Surbey, and Stills (2013) identified further reasons that individual's send sexual images to partners (including committed partner, casual sex partner and cheating partner) and these reasons include to flirt, it was requested, too shy to say/do face to face, as a precursor to sex, and boredom. In addition to this, the exploration of sexuality and identity is an important aspect of life, and technology and the internet just enable this facet to be explored in another arena (Jonsson et al., 2015).

**The Legal Framework and the Police response**

It is important to understand differences between consensual sexting, and sexting where consent is not present, and which is illegal. This very much is dependent upon what the sext (sexual image) is of, and who it is sent between. The Crown Prosecution Service (2015) defines a sexual image/video as one that depicts *"an individual's exposed genitals, or a picture of someone who is engaged in sexual behaviour or posing in a sexually provocative way, if what is shown is not of a kind ordinarily seen in public*" (p.12). In England and Wales, it is illegal to take, make or distribute images of individuals under the age of 18, as this would be considered an indecent image of a child which carries with it the possibility of imprisonment. Key policies that relate to this are The Criminal Justice Act (1988), and The Protection of Children Act 1978, and the Sexual Offences Act 2003. This would mean that children and adolescents who engage in the sexting of images may be committing a criminal offence. Considering the volume of individuals under the age of 18 sending and receiving sexual images (as discussed above), the police response has required consideration and the decision to prosecute is made on a case by case basis. The National Police Chiefs

Council, the Home Office and the Disclosure and Barring Service has developed a superior way of recording the outcome of an investigation into Youth Produced Sexual Imagery, named "Outcome 21" (UK Council for Child Internet Safety (2017). Whereby negative repercussions of children having a criminal record may be avoided because prosecution is not in the public interest. In relation to adults, consensual sexting is legal, however, difficulties arise when images are unwanted, further forwarded, or used for purposes different to that intended (for example, blackmail, monetary gain). It is important to highlight that the disclosure of a sexual image with the purpose of causing distress is now a crime and has been captured within the Criminal Courts and Justice Act (2015).

**Explanations for Sexting**

Though sexting may be a relatively recent phenomenon, theorists sought to explain it using existing frameworks and applying them to the act of sexting. Gottfredson and Hirschi's (1990) Self-Control Theory is one such theory that originally intended to explain crime and delinquency and has now been applied to sexting. Self-control refers to the ability to control one's desires, where individual's with higher levels of self-control consider the consequences of their actions (consequential thinking) and those with low self-control may not. Multiple factors account for a lack of self-control; impulsivity, risk seeking, lack of diligence, low tolerance for frustration, self-centredness, and preference for physical activity this theory posits that individuals who have lower self-control are more likely to engage in delinquent acts. Reyns (2014) puts forward a strong argument of how sexting can be explained using this theory, where individuals may not think of the potential unintended consequences of sending images and instead will live in the heat of the moment and behave impulsively. Furthermore, individuals may engage in sexting for the purposes of excitement, as well as the possibility of a positive or negative response to the image sent. Reyns (2014) argues that this is indicative of individuals engaging in an element of risk taking, where the sender risks a negative response (i.e. rejection) or the gamble pays off and they receive a positive response.

Reyns (2014) finally argues for a more theoretically informed research approach to sexting, where it is possible to test the application of theories to the

act in addition to identifying other correlates that may be significant in the sending of sexual imagery.

A further theory that may account for the sending of sexual images and which accounts for the use of technology to facilitate this is Suler's Online Disinhibition Effect (2004). Suler (2004) purports that there are six factors which contribute to this effect; 1) 'dissociative anonymity' (separation of online actions from 'real' life), 2) 'invisibility' (individuals are not seen even though they may be present i.e. on chat rooms), 3) 'asynchronicity' (not interacting with others in real time, and therefore not having to cope with an immediate reaction) 4) 'solipsistic introjection' (lack of face to face cues can in addition with text communication helps to create a character in our heads); 5) 'dissociative imagination' (refers to the ability to split the online life with offline reality) and 6) 'minimisation of status and authority' (the absence of status and power cues decreases influence of their authority) (Suler, 2004). These contribute to the online disinhibition effect and lessens the restrictions of face to face inhibitions. This also explains the reasons some individuals may engage in this behaviour irrespective of the potential risks involved (Delmonico, Putney, & Griffin, 2017).

Another theory that has been applied to adolescent sexting is the Social Learning Theory (Akers & Jennings, 2009). Van Ouytsel, Ponnet, Walrave and d'Haenens (2016) have applied the components of this theory to sexting. There are four areas that make up this theory; Definitions, Differential Association, Differential Reinforcement, and Imitation. Youth may be more likely to engage in sexting if they believe that it is justifiable and favourable for them (definitions). Van Ouytsel et al., (2016) identified a relationship between engagement in sexting and attitudes; individuals are more likely to engage in sexting within and outside of a romantic relationship when they hold positive attitudes to it. Differential association refers to an individual's associations with others who hold positive opinions about an act or engage in a deviant act (Akers & Jennings, 2009; Van Ouytsel et al., 2016). The argument here is that exposure to other peoples' values and behaviours on sexting (through peers/siblings for example) will impact on the likelihood of an individual engaging in the behaviour. The penultimate component for this theory is 'differential reinforcement', whereby this aspect includes the perceived outcomes of engaging in a certain behaviour

and these perceived rewards and punishments will influence the decision to engage or not in a behaviour (in this case sexting). Finally, the engagement in a behaviour occurs through imitation of another individual either directly through peers/siblings/role models, or indirectly, for example through the media (Van Ouytsel et al., 2016). The application of this theory, similarly to the self-control theory is persuasive and appears strong.

A final explanation for sexting in relation to adolescents is Erikson's stage Theory (1959) and is explained within a paper by Kane (2013). This posits that between the ages of 12 and 18 adolescents are going through a transitional stage between adolescence and adulthood and that between this age they are becoming more independent, and looking to the future in terms of their own roles in life. Importantly, during this stage, children are searching for belonging and ways in which they feel like they can achieve a sense of belonging, at the same time as exploring their own sexuality, sexual experiences and personal values. Given this, the role of sending and receiving sexual images may be a method in which they can explore and achieve this, which may be considered a societal norm.

**A current problem**

It is important to note that not everyone who engages in sending sexual images will experience negative consequences of doing so. However, as Gregg (2016) highlights; everyone who engages in sexting is at risk of others seeing intimate images of them through further dissemination of the intimate images. Therefore, understanding the risks and consequences of sexting may be of primary importance within research, as this may help inform us of the complexities of communication processes within individuals. Whilst the motivations for sending the original sexual image may be positive, and a positive outcome be achieved, it is important to stress that there are many negative consequences that may occur as a result of sending a sexual image. A study by McAfee (2013) found that 13% of adults have had intimate images leaked. The National Campaign to Prevent Teen and Unplanned Pregnancy (2008) reported that 29% of teenage participants and 32% of adult participants had received nude or semi-nude images originally meant for someone else shared with them

suggesting that almost one third of individuals who send images could have these images forwarded. Furthermore, there is also the possibility of being threatened, blackmailed or harassed with the release of an image for purposes such as revenge or perhaps monetary gain. This is likely to have an impact on the victim's emotional wellbeing and health. McAfee (2013) also reported in their research that one in ten adults have been threatened with the release of intimate photos. It is concerning that of those who have been threatened, 60% of the threats were carried out. This indicates that there is a strong possibility that senders may lose control of the sexual images that they send. Revenge Pornography is defined by UK Parliament as the distribution of "*private sexual photograph or film...without the consent of an individual who appears in the photograph or film, and with the intention of causing that individual distress*" (2015, p.34-35). Between 2012 and 2014 there were 149 recorded reports of revenge porn, resulting in six individuals receiving a caution/charge. This crime has been recently legislated for, and in the six months to April 2015, there were 139 allegations of revenge porn made to the police with 13 of these incidents resulting in an individual being charged (Guardian, 2015). Between April 2015 and December 2015 (the first six months of this legislation being introduced) there were 1160 incidents of revenge porn reported to the police, with 39% (n=452) of these resulting in a caution/charge (BBC, 2016). In 2016/17 the number of allegations of revenge porn made to the police and the number of cautions and charges made are unclear. However, as the number of prosecutions of revenge porn was 465 (BBC, 2018) the number of cautions and charges must have risen. These figures indicate that an increasing number of people are reporting their victimisation to the police, and there is an increase in the number of individuals being cautioned and charged. However, whilst this may be the case, it has recently been reported that one third of victims of revenge porn who have reported to the police choose not to support the charges and since its legislation 2813 of 7806 reported cases have been dropped (BBC, 2018). The BBC (2018) cites that whilst there may be many reasons for this, one such reason is the lack of anonymity that victims are afforded throughout the case, as complainants are not automatically granted anonymity. It is reasonable to suggest from this that the fear of being further victimised can be attributed in part for the withdrawal of complaints, meaning that victims often may not see justice.

**Effects of forwarding sexual imagery to third parties**

A key consideration of this topic is that it can be argued that the harm does not take place when the initial sexual image/video was sent, rather it is what the receiver does with the image that is significant (Bridgewater, 2013). Dependent upon what happens after the initial image/video is sent the impact of further dissemination could be devastating. Incidents of 'sexting gone wrong', has been associated with suicide, attention being paid particularly to teenagers. Bridgewater (2013) reported that 13% of teenagers that had sexted reported a suicide attempted. This is in comparison with only 3% of teenagers reporting suicide attempts who had not engaged in sexting behaviours. As mentioned within the opening paragraph, the internet has enabled much broader communication with hundreds, if not thousands of other individuals. Therefore, if posted online, images have the potential to be viewed by multiple people and once there it may be incredibly challenging to remove. Cecil (2014) points out that due to this the negative effects can be long lasting in victims with victims often being self-isolative by removing their social media profiles (and thus positive support networks) as a protective measure. Besides the privacy invasion, effects can vary and include physical, mental, social and financial consequences of being victimised (Citron & Franks, 2014). Removing anything from the internet can be extremely challenging, and therefore increasing numbers of people may view the image. Furthermore, images created by individuals under the age of 18 are illegal and therefore individuals under this age risk a possible criminal record. This suggests that effects may be cumulative and can be long lasting and have reaching implications.

Post-traumatic stress symptoms have been recorded in victims, as well as increasing levels of anxiety depression, and issues surrounding trust (Bates, 2017). Moreover, individuals have generally utilised negative coping mechanisms to dealing with their experiences in the immediate aftermath. In addition, feelings of shame, humiliation embarrassment and betrayal have all been used by individuals when describing their victimisation, suggesting the effects are severe and very damaging and have implications on an individual's self-esteem and confidence (Bates, 2017). Bates (2017) also suggested that the

effects of being victimised in this way are similar to those found in victims of sexual assault, which again highlights the devastating consequences that this may have on individuals. It is noted that Bates (2017) conducted in depth interviews with 18 female revenge porn survivors and explored the impact of revenge porn on victims in terms of mental health and coping. Qualitative research, such as this is "*used to capture expressive information not conveyed in quantitative data about beliefs, values, feelings, and motivations that underlie behaviors"* (Berkwits & Inui, 1998, p.195). Bates (2017) research offers a solid foundation for larger quantitative research studies which may seek to explore some of the characteristics and findings from the study. Essentially, qualitative studies may lead to testable hypotheses (Testa, Livingston, & VanZile-Tamsen, 2011). Quantitative research in this area may make the findings more generalisable to wider populations. In turn this may be helpful when attempting to understand the impact on victims, identifying those who may be more likely to have difficulty coping, as well as inform procedures and strategies that could be put in place to offer support and mitigate against potential distress.

However, it is important to stress that those effects occur when the original images were forwarded to those that it was not originally intended for by the recipient, indicating that the issue of consent is the essential component of this behaviour. It would therefore be reasonable to infer that if the image had remained with the original recipient then negative effects may not occur. It is also relevant to further highlight that potentially despite knowing that sexual images could be passed on, individuals continue to engage in this behaviour for multiple reasons (See Drouin, 2013). Considering this, it may be necessary to turn our attention not only to the perpetrators of this behaviour, but also to consider the frequency of it so that efforts can be made to prevent the further dissemination of images by targeting those at risk of forwarding the images.

## CHAPTER 2

## The prevalence and characteristics of individuals who forward private sexual imagery onto third parties; a systematic review.

### Abstract

*Sexting and surrounding issues are currently being explored, though there remains a paucity in the literature. One such paucity is the issue of forwarding sexual images of someone onto third parties without the person appearing in the image's consent. This current systematic review considers the prevalence of perpetration and victimisation within student and non-student populations, and other factors that may be associated with this. Five databases were systematically searched, four experts were contacted, two relevant websites were searched, two e-thesis portals were scanned in addition to hand searches of relevant papers. After applying inclusion/exclusion criteria, 34 papers were identified and synthesised narratively. Large differences in research methodologies were reflected in the differing victimisation and perpetration prevalence rates. Differences in prevalence rates according to age, gender, sexual orientation, and relationship characteristics were found. Further analyses indicated no correlation between perpetration or victimisation prevalence rates and year of study publication. Implications for further research are considered.*

## Introduction

This systematic review examined the research literature on the forwarding of sexual imagery onto third parties without the consent of the individual portrayed in the image.

Within the past decade there has been a large shift in the social communication of individuals (Drouin, Vogel, Surbey & Stills, 2013), perhaps in part due to the developing technology facilitating this move, and potentially away from more conventional forms of communication such as phone and email. The introduction of much social networking, for example Facebook and Twitter, has played a key role in the social communication between individuals, with a majority of young adults using these forums (Hampton, Goulet, Rainie, & Purcell, 2011). To iterate the popularity of social media, Statistica (2017) estimates that in the United States of America, 81% of the population have a social network profile and the tool most used for accessing this is a mobile phone. By 2021, the number of individuals worldwide using social networking is expected to be 3.02 billion (Statistica, 2017), which will equate to approximately one third of the entire world population. The development of internet based social media has meant that one individual can communicate with hundreds or even thousands of people (Mangold & Faulds, 2009); suggesting that a substantial amount of communication is made through these outlets.

Though it is gaining increasing attention, something that remains unclear is the sexual communication via various forms of digital media, including social media, text messaging and other mobile phone applications. Research appears to have centred around two aspects of sexual behaviour using these devices; 'Sexting' or 'Revenge Pornography'. Where 'Sexting' is the "*transmission of sexual material via phone or internet*" Drouin et al., 2013, p.25), 'Revenge Pornography' is the disclosure of a "*private sexual photograph or film...without the consent of an individual who appears in the photograph or film, and with the intention of causing that individual distress"* (UK Parliament, 2015, p. 34-35). Whilst these two behaviours both involve the sharing of sexual imagery, the fundamental difference is that Revenge Porn is executed without the consent of the individual in said image. It is also important to highlight that in cases of revenge porn the intention of the perpetrator is mostly to cause the individual

within the photo distress. The motivations for sharing sexual imagery in cases where the intention is not primarily to cause distress may include financial gain, for social status, or blackmail, although distress may be caused to the victim in any case. It has been reported that the majority of sexual behaviour and sending of sexual content to others is completed via text message compared with any other media (Drouin, Vogel, Surbey, & Stills, 2013).

The forwarding of sexual photographs or films may be important when characteristics of the individual's, both within the image and those who share the image are considered. For example, if the individual within the image is under the age of 18, then irrespective of whether the image is forwarded on to further audiences, and irrespective of the motivations for forwarding the image if done so, the image could be classed an indecent image of a child. Should this be discovered by authorities then it is possible that those involved could be charged with aspects of possession, making, or distributing indecent images of children. least one incidence which indicates a level of coercion in sending self-produced sexual images. This bears significance if we consider findings from a study carried out by the media investigating sexting and related behaviours (AP-MTV, 2009). In a sample of 1,247 individuals aged between 14 and 24, 24% of participants aged 14-17 years old admitted to having engaged in naked sexting. These findings highlight that children are engaging in these behaviours. Of the total sample (participants aged between 14 and 24) females are more likely to have engaged in sexting than males; 13% and 9%, respectively. In addition to the above, 61% of those aged 14-24 who have engaged in sexting have felt pressured into sending a sexual image in at least one incidence which indicates a level of coercion in sending self-produced sexual images. More recent research supports the fact that many adolescents have been involved with sexting; Turner-Distin & Browne (2018, in submission) found that 46.8% of participants engaged in some level of sexting (i.e. sent/received). Drouin, Ross and Tobin (2015) reported similar findings in college students, with 47% admitting to sending a sexually explicit image. These findings indicate that it is becoming a more frequent occurrence, which may be due to multiple factors including the development of technology, social media, and effectively a change/development in the way individuals communicate and relate to one another. Within the United Kingdom, despite the new Crown Prosecution Guidance (CPS, 2016) that

indicates caution should be taken when considering sexting cases and children should not routinely be prosecuted, there is a general consensus that laws to protect children are being used inappropriately to prosecute individuals for this under the guise of sexting (Youth Justice and Legal Centre, 2016). Such guidance is key when it considered that the prevalence of sexting in youth (youth produced sexual images, aged 17 or younger, Wolak & Finkelhor, 2011) has been reported as high as 24% (AP-MTV, 2009). Alarmingly, and of concern is the recent finding by Turner-Distin and Browne (2018, in submission), that 26.4% of participants admitted to sending sexts to online strangers, with adolescent participants more likely to engage in this behaviour.

An important aspect to consider is that the sending of intimate photographs and/or films often takes place within some of relationship, whether that be a committed and trusting long term relationship, or a sexual relationship of a more casual nature (Drouin et al., 2013). In terms of frequency Drouin and Landgraff (2012) found that 67% of respondents reported sending sexually explicit texts and 54% had engaged in the sending of sexual images/videos to their partners, suggesting that it is common practice. It is important to note that the motivations to send intimate images/films has not been explored in any great depth, and Drouin et al. (2013) argue that motivations may differ dependent on the context of the relationship. However, it is fair to say that at the very moment the image is shared with someone who is significant within your life, it is done so with some form of implicit trust that only the person it is intended for will view it.

In addition, Bryan and Jae (2008) report that the social value of the internet is of key importance and argue that viewing general pornography may provide individuals with an "*opportunity to become closer socially*" (p.196). The same could be said with sending and receiving sexual imagery of someone known to you, that it provides an opportunity for social development. Drouin et al., (2013) have also purported to this notion, that sexting could help to initiate or maintain relationships. With regards to the prevalence of sending intimate photos or videos to an individual, Woolard (2011) reports that 75% of a sample of a college student population reporting having engaged in this, to varying degrees of frequency. It is of interest that within this group, 54.7% of

individuals believed that these intimate messages did not always remain private, suggesting that there is an awareness that the content may potentially be forwarded, however this may not prevent people from engaging in this behavior in the first instance. In cases where an individual has distributed an image with the intent of embarrassing or causing distress to the individual depicted, Gámez-Guadix, Almendros, Borrajo, and Calvete, 2015 reported this as 1.1% The notion that this awareness does not always prevent individual's from sending a partner/potential partner intimate images is of significance when considering the effects when said image is forwarded without consent.

**Scoping Exercise and Summary of existing Reviews**

A scoping search was conducted between 09th November 2016 and 8th December 2016 to identify existing systematic reviews in relation to this research area. The Cochrane Library and Campbell Collaboration Library was searched to inform the scoping brief. The following search terms were used when searching these databases:

(Sext* OR Revenge Por* OR Sex* Photo* OR Sex* Imag*) AND Systematic Review

Google Scholar was also searched to identify previous systematic reviews. The following search terms were used:

"Sexting", "revenge porn", "forwarding sexual images", and "systematic review"

Three systematic reviews were identified that have considered similar themes relevant to this review. The first review reports findings around sexting behaviour. Klettke, Hallford and Mellor (2014) carried out a systematic review highlighting findings and prevalence around sexting behaviours, forming a synthesis of findings in relation to sexting. They concluded that it was difficult to identify the true prevalence of sexting due to differences in sampling techniques and definitions of the behaviour, however it was clear that adults both send and receive significantly more than adolescents. In addition, females are more likely to send sexts than males, and males more likely to receive them. This was

partially attributed to experiences of pressure and coercion towards females to engage in this. With regards to the characteristics of individuals who engage in sexting, those sexually active, those engaging in sexually risky behaviour, and those in a romantic relationship were more likely to have engaged in sexting. Furthermore, factors including positive attitudes towards sexting, higher psychological distress and lower well-being indicate a higher likelihood of engaging in sexting behaviour.

A further systematic review completed by Gomez and Ayala (2014) looked at the behaviours and attitudes relating to sexting. They concluded that the number of studies are increasing, and that it is important to identify factors relating to sexting behaviour. They found that impulsiveness, and higher risk taking tendencies to be related to sexting behaviours. Furthermore, they postulated that insecure emotional attachment styles may be indicative of sexting behaviours and that individuals with insecure emotional attachment styles engage in sexting. Within this systematic review, two studies identified insecure emotional attachment styles as having a role in sexting related behaviours. Weisskirch and Delevi (2011) found that insecure attachment, specifically, an anxious attachment was predictive of positive attitudes towards sexting held by participants. The positive attitudes included accepting sexting as normal, and holding a belief that it will improve relationships. Weisskirch and Delevi (2011) suggested that sexting may be a new way of expressing an anxious attachment style. Following this, further research confirmed the findings by Weisskirch and Delevi. Drouin and Landgraff (2012) found that texting (no sexual content) was associated with a secure attachment, and sexting (sexual imagery or text) was associated with an insecure attachment. The systematic review by Gomez and Ayala (2014) conclude that sexting may be a method by which individuals with insecure emotional attachment styles find love, or feel loved by someone. They also highlight that sexting may be associated with individuals who score higher on impulsiveness and risk taking tendencies. Increased risk taking tendencies have been found to be associated with insecure attachment style (i.e. Paulk and Zayac, 2013). This systematic review considered sexting behaviours, and within the study there is no report on the prevalence or characteristics of individuals that have forwarding images without the consent of the individual within the photo.

The final systematic review conducted by Sleath and Walker (2016, unpublished) was an overview of literature in relation to revenge porn, incorporating general aspects of image sharing. The author's conceived that the concept of revenge porn has been marred by inconsistencies in measuring techniques, wording within questions and timescales. It also concluded that more males engage in this act than females, with females being victimised at a higher rate (0.8%-42%). In addition, the authors of this paper identified the theoretical papers that have discussed revenge porn, and indicate that it may be an extension of domestic abuse.

Considering the effects that have been found to be associated with images being forwarded onto third parties without consent, it is necessary to identify the occurrence and also those who are at risk of engaging in this behaviour, as it is distinctive from sexting given the consent issues discussed above. To date there has not been a sole focus on establishing the prevalence and characteristics of those who engage in the sharing of sexts with third parties. This systematic review will aim to do this.

**Aims of Systematic Review**

From the scoping exercise it appears that there is a paucity of research in relation to the prevalence of individuals who forward sexual images that they have received onto third parties. Furthermore, there is a paucity of research into the characteristics of individuals involved in forwarding sexual images onto third parties. Therefore, the aim of this systematic review is to identify and synthesise findings from research studies that have explored this area. This may help to provide an assessment of these behaviours with a view to gaining a more in depth idea of the risk factors of individual's involved, and provide implications where further research may be required.

## Method

### Search Strategy: Sources of Literature

In order to identify research relevant to this systematic review an extensive search of the literature was conducted between the period of 8th August 2017 and 12th August 2017 The sources of literature are outlined in Table 1.

**Electronic Databases:** Electronic databases searched were PsycINFO, PsycARTICLES, OVID Medline, the Applied Social Sciences Index and Abstracts (ASSIA) and The Cochrane Library.

**Grey Literature sources:** The following electronic thesis websites were searched on 10th August 2017 due to the numbers of forensic doctoral students submitting theses annually: University of Birmingham; The University of Nottingham.

Two relevant websites were searched to further identify relevant research. The Cyber Civil Rights Initiative website was searched because it appears to be prominent in campaigning against revenge pornography and therefore may contain references of relevant studies. The National Society for the Prevention of Cruelty to Children (NSPCC) website was also searched as it is a leading charity in the prevention of child abuse.

**Experts Contacted:** To compliment the systematic review, four experts were contacted via email on 8th August 2017 because of their knowledge and expertise within this research area. Experts contacted were Dr Sleath (Coventry University, Dr Walker (Coventry University), Dr Klettke (Deakin University), and Dr Gomez (Universidad de Almeria). Three responded and three provided helpful articles.

**Reference Lists:** The reference lists of the following three systematic reviews were scanned and relevant studies were identified; Klettke, Hallford and Mellor (2014), Gomez and Ayala (2014), and Sleath and Walker (2016).

Studies that were unpublished were also included within this review in addition to published research to ensure that this systematic review captured relevant studies and reduce the potential for publication bias. Similarly, there was no time limit placed on the search strategy. Whilst it is felt that relevant studies may have been completed within more recent times, it is important to capture all potentially relevant research.

Table 1: Literature Sources

| **Source** | **Database** | **Date Search Completed** |
|---|---|---|
| **Electronic bibliographic databases** | OVID: PsycINFO (Dates: All years to 10th August 2017) | 10th August 2017 |
| | OVID: PsycARTICLES (Dates: All years to 11th August 2017) | 11th August 2017 |
| | OVID: MEDLINE In process and other non-indexed citations (Dates: All years to August 11th 2017) | 11th August 2017 |
| | ProQuest: Applied Social Sciences Index and Abstracts ASSIA (Time Span: All years to 12th August) | 12th August 2017 |
| | Cochrane Library (Time Span: All years to 12th August 2017) | 12th August 2017 |
| **E Thesis Portals** | University of Birmingham<br>University of Nottingham | 10th August 2017 |
| **Grey literature sources** | Cyber Civil Rights Initiative Website<br>NSPCC website | 10th August 2017 |
| **Contact with Experts** | Dr Sleath (Coventry University)<br>Dr Walker (Coventry University)<br>Dr Klettke (Deakin University)<br>L. Gomez (Universidad de Almeria) | 8th August 2017 |
| **Hand Search** | Reference lists of previous systematic reviews identified in scoping exercise | 10th August 2017 |

**Search Strategy: Search Terms**

The search strategy included all study designs and therefore was not restricted to a single type of study. Search terms were adjusted dependent upon the database being searched. Full details of search terms used for each database can be viewed in Appendix A. An example search term guideline is provided below:

(porn* OR pornography OR erotic* OR image* OR photo* OR nud* OR obscene* OR priva* OR sex* OR intim*) AND (message OR text messages OR social media OR social networking OR internet) AND ("online bullying" OR "cyber bullying" OR revenge* OR veng*) OR ab("revenge porn" OR sext OR sexting OR "sext text" OR risk-taking)

The term "prevalence" was not included within the search terms. It was felt that including this term would result in fewer studies captured and exclude potentially relevant studies.

**Data Management**

Mendeley (bibliographic software) was used during the review process to manage the data.

**Study Eligibility (Inclusion and Exclusion Criteria)**

Identifying study eligibility took place in multiple stages. Initially, all irrelevant studies were removed through initial screening within each database. Irrelevant studies at this stage were identified through title and abstract. Remaining studies were transferred into the bibliographic software program Mendeley and duplicates were removed. A further review of the abstracts was completed at this point determine suitability using inclusion criteria; unsuitable studies were removed. Full papers were obtained for the remaining studies and the inclusion criteria was applied. See Appendix B for the Inclusion/Exclusion criteria forms. At this point, references that did not meet the inclusion criteria

were excluded and their details are recorded alongside reason for exclusion (See appendix C).

Due to time constraints, only papers written in English will be included. Case studies, practice notes and qualitative only studies were excluded from this review. See Table 2 for inclusion/exclusion criteria.

Table 2: Inclusion Criteria

| | **Inclusion** | **Exclusion** |
|---|---|---|
| **Population** | General population<br>Any age<br>All genders | |
| **Exposure** | Individuals who have forwarded sexual images of others onto third parties. | |
| **Comparator** | Individuals who have not forwarded sexual images of others onto third parties. | |
| **Outcome** | Characteristics of perpetrators and prevalence of perpetration/victimisation<br>Characteristics: including (but not limited to)<br>Physical – gender, age.<br>Psychological – attitudes, sexual behaviours. | |
| **Study Design** | Randomised Control Trials<br>Cohort Studies<br>Case Control<br>Case Series | Qualitative only,<br>Practice notes,<br>Case Studies |
| **Region** | This systematic review is international. | |
| **Language** | Material published in English will be included. | Papers written in Other languages |

Studies that did not meet the inclusion criteria were excluded. A flowchart of study selection can be viewed in Figure 1.

## Quality Assessment

An assessment of quality is critical within any systematic review (Whiting, Rutjes, Reitsman, Bossuyt & Kleijnen, 2003). All studies that have been included in this review were assessed using a pre-defined quality appraisal tool. This has been adapted from the Critical Appraisal Skills Programme (CASP; 2013) and can be viewed in Appendix D. The purpose of the quality assessment stage is to identify the strengths and weaknesses of studies, and therefore to identify their susceptibility to bias and identify the methodological quality (Sanderson, Tatt, & Higgins, 2007). Six areas were reviewed within the quality assessment and these were the inclusion and selection bias, performance bias, measurement bias, attrition bias, and a review of the quality of results reported.

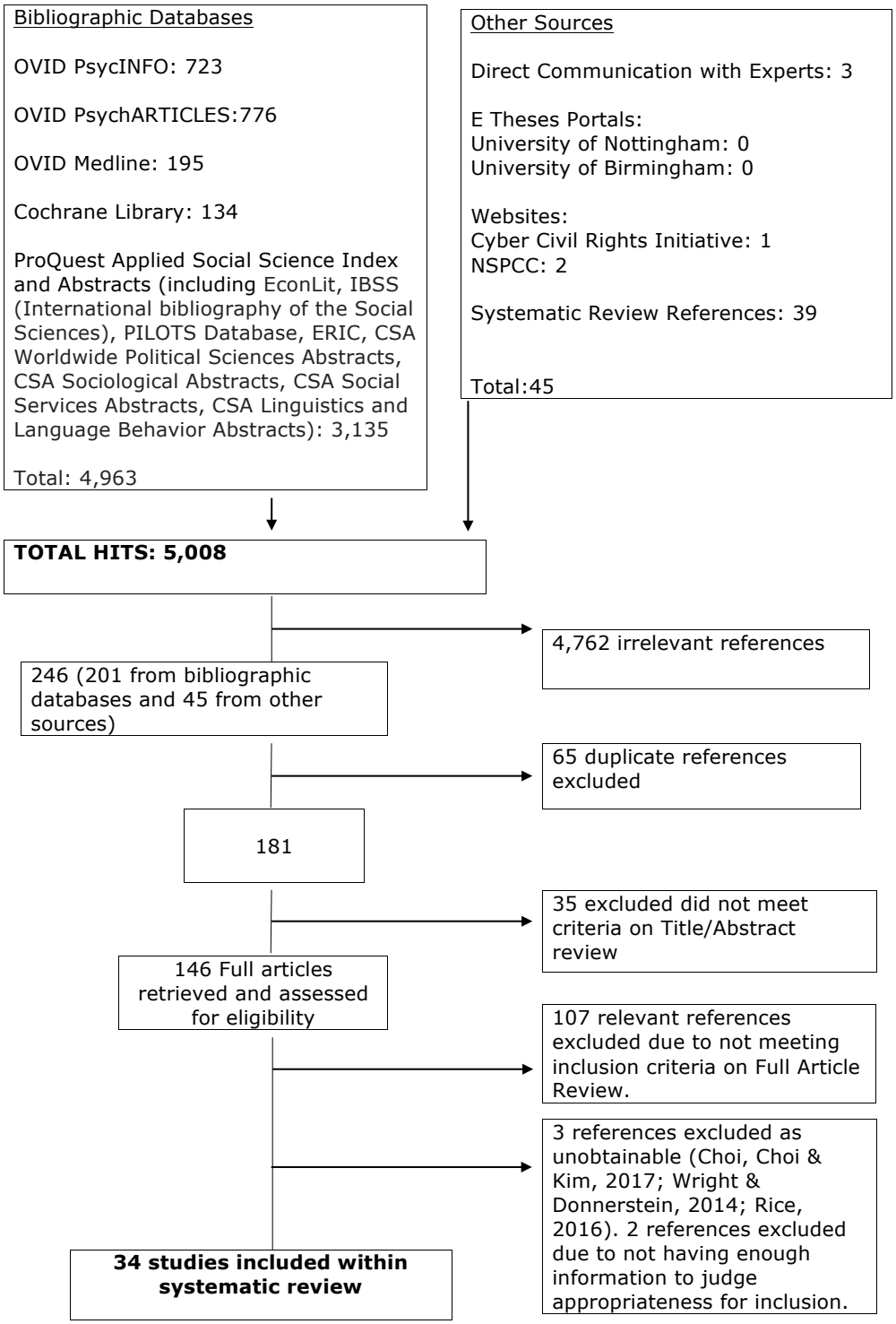
Within the quality assessment checklist, each item considered was coded either Yes (Y), Partial (P), No (N), or Unclear (U). This allowed for the rater to assess the overall quality of the study and identify sources of bias effectively.

The author assessed the quality of all included studies. In order to ensure the consistency of quality assessment, 20% of the included studies were re-examined by a second reviewer. The second reviewer was a colleague who has sufficient knowledge of systematic reviews and this was completed to identify how robust the study included was.

## Data Extraction

A predefined data extraction pro-forma was used to elicit details of included studies. This can be viewed in Appendix E. Due to time constraints it was not possible to contact the authors with the view of requesting missing information.

Figure 1: Search and Study Selection Process



# Results

## Description of studies

The search yielded 5008 publications. 4762 references were excluded, and 65 duplicate references were removed. A further 35 publications were removed after a review of the abstract. Full texts were obtained for the remaining 146 publications. 107 references were excluded due to not meeting the minimum threshold for inclusion after a full review of the article. Three references were excluded as they were unobtainable despite attempts to locate the texts. A further two references were excluded due to not having enough information to apply to PECO. The remaining 34 publications were included in the review.

## Characteristics and risk of bias within included studies

The total sample size considered within this review of 34 studies was 34,712. Each study was treated as separate, however it is of note that one study was a follow up comparison of sexting rates after a four-year period (Strassberg, Cann, & Velarde, 2017). The follow up sample was different to the original sample and therefore this has also been treated as a separate study within this review. Table 3 outlines the characteristics and results for the included studies.

A second independent reviewer assessed the quality of 20% of the included studies (n=7) using the adapted CASP quality assessment form (2013). The studies included aimed to explore sexting and therefore the further forwarding of sexual images onto third parties formed a part of the research, and was not the sole focus of the research. Once the second reviewer had applied the quality checklist to the papers, the author checked for any discrepancies between author and second reviewer scoring. Agreement rate was calculated as 95.4%. Where discrepancies occurred the author and second reviewer discussed the issue and identified the reasons for the discrepancy. Following this a mutually agreed outcome was recorded (100%).

The sample sizes within each study were large, with the exception of one study (Crimmins, Seigfried-Spellar, 2014; n=88). Participant numbers ranged from n=88-3432 (Crimmins & Seigfried-Spellar, 2014 and Priebe & Svedin, 2012, respectively).

The countries that the studies originated from were worldwide; USA (25 studies), Australia (2 studies), Italy (2 studies), UK (1 study), Africa (1 study), Spain (1 study), Sweden (1 study), Europe wide (1 study).

The majority of the studies carried out were completed on student populations (including high school, college, university; n=24). There were two studies carried out on a mixture of students and members of the public (Morelli et al., 2016a; Morelli et al., 2016b). One study was carried out on each of the following; internet users (Eaton, Jacobs & Ruvalcaba, 2017), members of the public (Boulat, Caddaye, D'Souza, Glyde, Hatwal, Jansz, Stephens, & Zoppos, 2012), data from law enforcement agencies (Wolak, Finkelhor, & Mitchell, 2012), adults only (Gamez-Guadix, Alemendros, Borrajo, & Calvete, 2015), teens and young adults (The National Campaign to prevent teen and unplanned pregnancy, 2008), young adults (Stocker, 2014), members of the public (AP-MTV, 2009) and youth (Mitchell, Finkelhor, Jones & Wolak, 2012).

In relation to participant genders the majority of studies incorporated both males and females. However, Thompson & Morrison (2013) research was carried out on male students and there were no gender demographics reported for Wolak, Finkelhor, & Mitchell's (2012) study.

The design of the 34 studies included in this review were all cross sectional. The sample within Fleshler Peskin, Markham, Addy, Shegog, Thiel and Tortolero's (2013) and Dick et al.'s, (2014) study were recruited during opportunistic sampling of participants taking part in a randomised controlled trial into although the reported studies design was cross sectional. Due to the nature of this systematic review this study design was expected.

The studies identified a prevalence rate for the forwarding of sexts onto third parties (either perpetration, victimisation or received a third party image). A number of studies ran further statistical analyses to identify characteristics of individuals/factors that may or may not be associated with engaging or refraining from engaging in this behaviour (Brenick, Flannery, & Rankin, 2017; Dir & Cyders, 2015; Drouin, Vogel, Surbey, & sills, 2013; Englander, 2012; Gamez-Guadix, Alemendros, Borrajo, Calvete, 2015; McCue, 2016;Morelli, Bianchi, Baiocco, Pezzuti, & Chirumbolo, 2016a; Eaton, Jacobs, Ruvalcaba, 2017; Wood, Barter, Stanley, Aghtaie, & Larkins, 2015; Strassberg, Rullo, &

Mackaronis, 2014). Characteristics measured by these were age, gender, adult attachment, rejection sensitivity, levels of impulsiveness, relationship conflict and sexism.

In terms of the definition of sexting the majority of studies reported the incidents of forwarding sexual imagery onto third parties. However, 6 studies included written text messages as well as images and videos within the definition of sexting (Strohmaier et al., 2014; Dir & Cyders, 2015; Hudson et al, 2014; Makgale & Plattner, 2017; Thompson & Morrison, 2013; Brenik et al., 2017).

The studies within this systematic review used self-report questionnaires to measure the frequency of forwarding of images (with the exception of Wolak, Finkelhor & Mitchell, 2012 whose study consisted of gathering data from law enforcement agencies). To gather this data many of the studies developed their own questionnaires about sexting and forwarding of images. A number of scales to determine the prevalence of forwarding images had been adapted from previous questionnaires to measure sexting behaviours (Dir, 2012; Alderson & Samimi, 2014; Ferguson, 2011; Drouin et al., 2013; Lenhart, 2009; Drouin & Landgraff, 2012; National Campaign, 2008). Where studies have measured characteristics of individuals who have forwarded sexual images of a third party, these psychometrics have been previously validated.

Multiple methods of recruitment and survey distribution were utilised within the studies. The majority of studies included within this review were conducted using online surveys (Phippen, 2011; Brenick et al., 2017; Crimmins & Seigfried Spellar, 2014; Dir & Cyders, 2015; Drouin et al., 2013; Gamez-Guadix et al., 2015; Marganski & Melander, 2015; McCue, 2016; Morelli et al., 2016b; Perkins et al., 2014; Eaton et al., 2017; Stocker, 2014; Boulat et al., 2012; National Campaign 2008; Strohmaier et al., 2014). Paper surveys were the next most common method of distribution (Hudson et al., 2014; Makgale & Plattner, 2017; Priebe & Svedin, 2012; Reed et al., 2016; Strassberg et al., 2013; Strassberg et al., 2017; Woodward et al., 2017; Thompson & Morrison, 2013), followed by a mixture of methods (Morelli et al., 2016a; Wood et al., 2015; Wolak et al., 2012; Patrick et al., 2015), telephone (AP-MTV, 2009; Mitchell et al., 2012), audio assisted computer survey (Fleschler Peskin et al., 2013; Dick et al., 2014). The methods for the remaining three studies were

unclear (Englander 2012; Strassberg et al., 2014; and Zemmels & Khey, 2015).

Approximately half of the papers identified to some degree the survey response rates/attrition rates for the sample (n=19). Rates of attrition and survey response rates were not discussed in the remainder of the papers (n=15). It is noted that Wolak, Finkelhor and Mitchell's (2012) provided a very thorough breakdown of participant response/attrition rate presented in a diagram.

The main findings for each study was clearly explained within each paper. It is important to note that this systematic review represents a small part of the included study's findings and therefore the papers report these in a great depth.

Overall, 11 papers had a strong overall risk of bias (indicated by at least three areas identified as having three areas of high risk of bias). The remaining 23 papers had a moderate risk of bias. This can be viewed in Table 4. A summary of quality characteristics can be viewed in appendix F. As previously mentioned, the most prominent risk of bias came from the study design, as the papers were cross sectional in nature, and therefore had no control group. Cross sectional studies provide an idea of what is happening at a snapshot in time and do not indicate causality (Levin, 2006). The inclusion/selection section was a further source of bias, as many of the studies were carried out on students. Multiple studies used sampling from a smaller sub-section of students, for example, students studying a particular course, or excluded participants based on relationship status.

This topic has only recently been explored and as such many of the measurements used within the studies have not been previously validated, thus providing a further source of bias. The measures used therefore have been scored as a low source of bias if the measures have been previously validated, or there is an indication that reliability/validity had been established through the study. They were scored as a moderate risk of bias if questionnaires used had been used/adapted from previous studies, and high risk of bias if the questionnaires had been developed by authors without any mention of reliability/validity. All papers were analysed appropriately and reported detailed results which limited the possibility of bias in this area.

Table 3: Characteristics of included studies

| Study number | Author, year of publication & location | Sample size | Population | Age and gender | Measures |
|---|---|---|---|---|---|
| 1 | Phippen (2011)<br>United Kingdom | 535 | School Children | 11-18 | Prevalence<br>Self-developed questionnaire on sexting behaviours |
| 2 | AP-MTV (2009)<br>USA | 1,247 | Members of the public. Randomly recruited via Random Digital Dial | 14-24 | Online PERvictimisation Prevalence |
| 3 | Brenick, Flannery, & Rankin (2017)<br>USA | 169 | University Students | 18-25 (M=20.7, SD=.96)<br>79.8% Female | Revised Adult Attachment Scale (Collins, 1996)<br>Adult Rejection Sensitivity Questionnaire (Downey & Feldman, 1996)<br><br>Subsample of Alderson and Samimi's (2014) Sexting experiences questionnaire |
| 4 | Crimmins, Seigfried-Spellar (2014)<br>USA | 88 | Undergraduate students | Over 19 years old<br>61% Female | Risky Behaviours Sexting (questionnaire taken from National Campaign, 2008)<br>Experienced Peer Relationships Scale (Ševcíková, 2012; Širu˙cek, 2008) |
| 5 | Dir & Cyders (2015)<br>USA | 611 (255 for analysis) | Undergraduate students | 18-45 (M=21.4, SD=4.18)<br>70.6% Female | 10 Item Sexting Behaviours Scale (Dir et al., 2013)<br><br>Sexting Outcomes Questionnaire (Self-developed)<br><br>UPPS=P Impulsive Behavior Scale (Lynam, Smith, Cyders, Fischer, & Whiteside, 2007) |

| | | | | | |
|---|---|---|---|---|---|
| 6 | Drouin, Vogel, Surbey, & still (2013)<br>USA | 253 | University Psychology students | 18-26 (M=19.47, SD 1.54)<br>58.5% Female | Sexting Behaviours<br>Motivations<br>Risks with sexting |
| 7 | Englander (2012)<br>USA | 617 | University students (Freshman) | 18 year olds | Sexting behaviours<br>Mental health (depression/anxiety/ substances/ Self-harm)<br>Victimisation |
| 8 | Fleschler Peskin, Markham, Addy, Shegog, Thiel, Tortolero (2013)<br>USA | 1,034 | School Students 10th Graders (recruited during 7th grade for RCT) | 98% under 18 years old (M=16.3 (SD=.68)<br>62.6% Female | Sexting behaviours (taken from the National Campaign, 2008).<br><br>Internet related behaviours questionnaire (adapted from The San Jose Mercury News/Kaiser Family Foundation survey, 2012) |
| 9 | Gámez-Guadix, Alemendros, Borrajo, Calvete (2015)<br>Spain | 873 | Spanish Adults | 18-60 (M=31.11, SD=9.58)<br>64% Female | Self-developed Sexting Behaviours Questionnaire<br><br>Self- developed 10-item Online victimisation Questionnaire |
| 10 | Hudson, Fetro, & Ogletree (2014)<br>USA | 697 | Students | 58.5% participants were 18/19 year olds<br>50.2% females | Sexting behaviours (National Campaign, 2008 Sex and Tech Survey Questionnaire)<br><br>Attitudes |
| 11 | Makgale & Plattner (2017)<br>Botswana | 309 | Undergraduate students | M=20.3<br>64.5% female | 4 items measuring Sexting behaviours (adapted from Ferguson, 2011).<br><br>2 items measuring addressees of sexting and motivations (adapted from Henderson & Morgan, 2011). |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | 1 item measuring forwarding of sexts (adapted from Drouin et al., 2013).<br><br>1 item measuring risk of sexting (Adapted from Drouin et al, 2013)<br><br>Further self-developed items measuring alcohol use and risky sexual behaviours. |
| 12 | Marganski & Melander (2015)<br>USA | 844 (Analysed sample 540) | College students within a relationship over last 12 months | 18-25 (M=19.5), SD=1.6)<br>73.1% female | 18 item self-developed questionnaire on Cyber aggression<br><br>Modified version of the Conflict Tactics Scale (Straus et al., 1996) |
| 13 | McCue (2016)<br>USA | 167 | College students studying Criminal Justice | 18+ (M=22.35)<br>60% female | Self-developed questionnaire on Sexting behaviours |
| 14 | Mitchell, Finkelhor, Jones, & Wolak (2012)<br>USA | 1,560 | Youth | 10-17<br>50% Female | Sexting behaviours |
| 15 | Morelli, Bianchi, Baiocco, Pezzuti, & Chirumbolo (2016a)<br>Italy | 715 | Students and public. All participants in a romantic relationship | 13-30 (M=22.01)<br>71.7% Female | Sexting Behavior Scale (Dir, 2012)<br><br>Conflict in Adolescent Dating Relationships Inventory (Wolfe, Scott, Reitzel-Jaffe, Wekerle, Grasley, & Straatman, 2001)<br><br>Ambivalent Sexism Inventory (Glick & Friske, 1996) |

| | | | | | |
|---|---|---|---|---|---|
| 16 | Morelli, Bianchi, Baiocco, Pezzuti, & Chirumbolo (2016b) Italy | 1,334 | Adolescents and young adults | 13-30 (M=20.8, SD=4.3) 68% Females | Kinsey scale (sexual orientation; Kinsey, 1948)<br><br>Sexting Behaviors Questionnaire<br><br>Conflict in Adolescent Dating Relationships Inventory (Wolfe et al., 2001)<br><br>General Health Questionnaire (Goldberg & Hillier, 1979) |
| 17 | Perkins, Becker, Tehee, & Mackleprang (2014) USA | 287 | University students | 18-24 (M=18.97, SD=1.09) 66.9% female | Self-developed questionnaire on sexting behaviours<br><br>Hostility Toward Women Scale (Check, 1985; Malamuth et al., 1995)<br>Adversarial Heterosexual Beliefs Scale (Lonsway & Fitzgerald, 1995). |
| 18 | Priebe & Svedin (2012) Sweden | 3,432 | Students (High school seniors) | 16-22 (M=18.3) 53.6% female | Questionnaire developed for study. 88 items on relationships, lifestyle, love and consensual sexual experiences, emotional sexual and physical abuse, sexually coercive behaviour, use of internet and mobile phones, problematic sexual meetings, selling sex, pornography, support seeking.<br>SCL-25 (psychiatric symptoms)<br><br>Rosenburg Self-Esteem Scale (Rosenburg, 1965)<br><br>Sense of Coherence Scale (Antonovsky, 1987) |
| 19 | Eaton, Jacobs, Ruvalcaba (2017) USA | 3,044 | Internet users | 18-97 (M=40.31, SD=19.02) 53.8% Female | Self- developed questionnaire for this study. |

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| 20 | Wood, Barter, Stanley, Aghtaie, & Larkins (2015) Europe | 4,564 (3,299 for analysis) | Young people who reported having been in a relationship (school students) | 14-17 (M=14.73 England-15.29 Italy) | Questionnaire on young people's experience interpersonal partner violence and abuse (IPVA; items based on previous studies, i.e. Barter et al., 2009 & Radford et al., 2011). |
| 21 | Stocker (2014) USA | 409 (366 completed) | Young Adults | 18-26 (M=22.3) 88.44% female | 54 item self-developed questionnaire on Sexting behaviours |
| 22 | Strassberg, McKKinnon, Sustaita, & Rullo (2013) USA | 606 | Private high school students | 32.2% freshmen, 18.4% sophomore, 24.9% juniors, 24.6% seniors. 45.87 female | Self-developed questionnaire sexting behaviours |
| 23 | Strassberg, Cann, Velarde (2017) USA | 656 (analysis on 622) Follow up/ Comparison study on Strassberg et al., (2013) | Private High school students | Freshmen, sophomore, juniors, and seniors. 45.98% female | Self-developed questionnaire about sexting behaviours. |

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| 24 | Strassberg, Rullo, & Mackaronis (2014)<br>USA | 1,130 | Undergraduate students | 59.2% female | Self-developed questionnaire on experiences of sexting whilst in high school. |
| 25 | Wolak, Finkelhor, & Mitchell (2012)<br>USA | Sample of 2,712 agencies. 1,029 cases within sample. Further interviews with 675 | Law enforcement agencies | No further demographics | Questions on youth produced sexual image cases handled by law enforcement agencies 2008/09. |
| 26 | Woodward, Evans, & Brooks (2017)<br>USA | 548 | Rural high school students | M=15.9 SD1.24. 58.21% female | Questionnaire developed on behavioural, social and psychological correlates of sexting:<br>Depression<br>Self-esteem<br>Social skills (items modified from Horowitz and Stecker, 2007),<br>Alcohol and cannabis use<br>Bullying and victimisation<br>delinquency |
| 27 | Zemmels & Khey (2015)<br>USA | 108 | Undergraduate students | 18-27 (M=19.43) 75.9% female | Modified questions from Scale of Consumer Trust (Pan & Zinkhan, 2006)<br><br>Privacy related attitudes items drawn from Buchanan, Paine, Joinson, & Reips (2007)<br><br>Items from Identity Disclosure Scale (Stutzman, 2006). |

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| | | | | | Questions drawn from PEW Internet survey to measures sexting behaviours. |
| 28 | Boulat, Caddaye, D'Souza, Glyde, Hatwal, Jansz, Stephens, & Zoppos (2012) Australia | 1,102 | Public | <10->26<br>49.9% participants aged 10-15.<br>60.67% females. | Developed a survey about sexting behaviours and attitudes |
| 29 | The National Campaign to Prevent Teen and Unplanned Pregnancy (2008)<br>USA | 1,280 | Teen and young adults | 13-19 (N=653 teens)<br>20-26 (N=627)<br>627 young adults | Self-developed questionnaire |
| 30 | Dick, McCauley, Jones, Tancredi, Goldstein, Blackburn, Monasterio, James, Silverman, & Miller (2014)<br>USA | 1,008 | Youth (students) seeking care at school based health centers | 14-19<br>14/15 34.3%<br>16/17 56.1%<br>18/19 9.6%<br><br>76% female | 7 items adapted from Ybarra t al (2007) and Bennett et al., (2011) to measure cyber dating abuse and frequency<br><br>Item to measure request for sexual images<br><br>3 items from Conflict Tactics Scale-2 (Straus et al., 1996) and the Sexual Experiences Survey (Koss et al., 1985) to measure victimisation and sexual violence.<br><br>Single developed item to measure Pregnancy Risk |

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| | | | | | 10 items to measure reproductive coercion (developed by investigative team and tested in previous clinic samples (Miller et al., 2010)<br><br>Items taken from the Sexual Experiences Survey (Koss & Gidycz, 1985) |
| 31 | Reed, Tolman, & Ward (2016)<br>USA | 365 | College students enrolled in an introductory psychology course | 17-22 (M=18.66)<br>57% female | Social media use<br><br>Developed a 38-item questionnaire about digital dating abuse and informed by other surveys and the Psychological Maltreatment Inventory for Adolescents (modified from the Psychological Maltreatment of Women Inventory; Tolman, 1999)<br><br>Dating Violence – Conflict Tactics Scale-2 (Straus & Douglas, 2004).<br><br>PMI-A (modified from the PMI-W, Tolman, 1999) |
| 32 | Patrick, Heywood, Pitts, & Mitchell (2015)<br>Australia | 2,114 | Secondary school students | Year 10 42.8%<br>Year 11 29.9%<br>Year 12 27.3%<br><br>61.6% females | Sexting behaviours (adapted from Lenhart, 2009 and Drouin & Landgraff, 2012)<br><br>Sexual attraction<br><br>Sexual experiences<br><br>Use of alcohol/marijuana |
| 33 | Thompson & Morrison (2013)<br><br>USA | 1,472 (analysis on 571 who completed | Male University students | 18.56 (SD=0.51) | 5 items measuring engagement in cyber based sexual behaviours (derived from Finkelhor, Mitchell & Wolak, 2000; Wolak, Mitchell & Finkelhor 2007, and Ybarra et al., 2007; National |

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| | | Wave 4 survey) | | | Campaign to Prevent Teen and Unplanned Pregnancy, 2008). Measure showed good internal consistency a=.77. |
| 34 | Strohmaier, Murphy, & De Matteo (2014) USA | 228 (analysis on 175) | University students | 18-22 (M=19.54, SD=1.35) 61% female | Developed a questionnaire on sexting behaviours |

Table 4: Risk of Bias

| Study number | Study | Design | Inclusion/ selection | Measures | Attrition | Analysis/ Results | Overall risk (strong/moderate/weak) |
|---|---|---|---|---|---|---|---|
| 1 | Phippen (2011) United Kingdom | High | Medium | High | High | low | Strong |
| 2 | AP-MTV (2009) USA | high | Low | High | High | low | Strong |
| 3 | Brenick, Flannery, & Rankin (2017) USA | high | Medium | Low | high | low | Moderate |
| 4 | Crimmins, Seigfried-Spellar (2014) USA | high | high | Medium | low | Low | Moderate |
| 5 | Dir & Cyders (2015) USA | high | Medium | Low | high | Low | Moderate |
| 6 | Drouin, Vogel, Surbey, & still (2013) USA | high | Medium | high | medium | Low | Moderate |
| 7 | Englander (2012) USA | high | Medium | high | high | Low | Strong |

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| 8 | Fleschler Peskin, Markham, Addy, Shegog, Thiel, Tortolero (2013) USA | high | High | medium | low | Low | Moderate |
| 9 | Gámez-Guadix, Alemendros, Borrajo, Calvete (2015) Spain | high | Medium | Low | medium | Low | Moderate |
| 10 | Hudson, Fetro, & Ogletree (2014) USA | high | Medium | Low | low | low | Moderate |
| 11 | Makgale & Plattner (2017) Botswana | high | Medium | Medium | low | Low | Moderate |
| 12 | Marganski & Melander (2015) USA | high | High | Low | high | Low | Strong |
| 13 | McCue (2016) USA | high | High | High | medium | Low | Strong |
| 14 | Mitchell, Finkelhor, Jones, & Wolak (2012) USA | high | low | High | low | low | Moderate |
| 15 | Morelli, Bianchi, Baiocco, Pezzuti, & Chirumbolo (2016a) Italy | high | High | Low | high | Low | Strong |
| 16 | Morelli, Bianchi, Baiocco, Pezzuti, & Chirumbolo (2016b) | high | Medium | Low | high | Low | Moderate |

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| | Italy | | | | | | |
| 17 | Perkins, Becker, Tehee, & Mackleprang (2014) USA | high | Medium | Medium | high | Low | moderate |
| 18 | Priebe & Svedin (2012) Sweden | high | Medium | Medium | high | Low | Moderate |
| 19 | Eaton, Jacobs, Ruvalcaba (2017) USA | high | Low | High | high | Low | Strong |
| 20 | Wood, Barter, Stanley, Aghtaie, & Larkins (2015) Europe | high | High | Medium | medium | Low | Moderate |
| 21 | Stocker (2014) USA | high | Medium | High | medium | Low | Moderate |
| 22 | Strassberg, McKKinnon, Sustaita, & Rullo (2013) USA | high | Medium | high | medium | Low | Moderate |
| 23 | Strassberg, Cann, Velarde (2017) USA | high | Medium | high | low | Low | Moderate |
| 24 | Strassberg, Rullo, & Mackaronis (2014) USA | high | Medium | high | high | Low | Strong |
| 25 | Wolak, Finkelhor, & Mitchell (2012) | high | Low | low | low | Low | Moderate |

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| | USA | | | | | | |
| 26 | Woodward, Evans, & Brooks (2017)<br>USA | high | Medium | high | high | Low | Strong |
| 27 | Zemmels & Khey (2015)<br>USA | high | Medium | medium | medium | Low | Moderate |
| 28 | Boulat, Caddaye, D'Souza, Glyde, Hatwal, Jansz, Stephens, & Zoppos (2012)<br>Australia | high | Low | high | high | Low | Strong |
| 29 | The National Campaign to Prevent Teen and Unplanned Pregnancy (2008)<br>USA | high | Medium | high | high | Low | Strong |
| 30 | Dick, McCauley, Jones, Tancredi, Goldstein, Blackburn, Monasterio, James, Silverman, & Miller (2014)<br>USA | high | High | medium | medium | Low | Moderate |
| 31 | Reed, Tolman, & Ward (2016)<br>USA | high | high | medium | medium | Low | Moderate |
| 32 | Patrick, Heywood, Pitts, & Mitchell (2015)<br>Australia | high | Medium | medium | medium | Low | Moderate |

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|---|---|---|---|---|---|---|---|
| 33 | Thompson & Morrison (2013) USA | high | high | low | medium | Low | Moderate |
| 34 | Strohmaier, Murphy, & De Matteo (2014) USA | high | medium | high | low | Low | Moderate |

## Descriptive data Synthesis

The main findings for the studies within this review are described below. For reader ease, they have been split into main themes that are representative of the findings within the studies. These categories are the perpetration of forwarding sexual images in student population and non-student-only populations, the victimisation of having sexual images shared within student populations and non-student-only populations, receivers of forwarded images, and other characteristics. Corresponding tables to victimisation and perpetration in student and non-student populations can be found in Tables 5 and 6.

## Prevalence of forwarding/sharing a sexual image of someone to a third party

### Student populations.

Fleschler Peskin et al. (2013) found that 8.8% of their participants had shared sexts originally meant for them with a third party and constrained to a subsample of those who participated in sexting the figure of those who had shared a nude/semi-nude image with a third party was 36.5%. Interestingly, Fleschler Peskin et al (2013) also identified varying rates amongst different ethnicities who shared sexts originally meant for them; 7.6% black females, 6.4% Hispanic females, 12.6% Black males, and 11.4% Hispanic males. Patrick et al. (2015) reported that 8.6% of their sample of secondary school students had sent a sexually explicit nude or nearly nude photo/video of someone else (males=13.9% and females=5.3%).

In a sample of undergraduate students, Makgale and Plattner (2017) found that among sexters, 30.2% had forwarded sexts to third parties. Strohmaier and Murphy (2014) reported comparable findings in university students; 26% of participants had forwarded/shared a sext with others as a minor. Similarly to this, in their sample of university students, Perkins et al (2014) found that of those who had indicated they had engaged in sexting, 22% have forwarded semi-nude sexts they received, and 20% reported forwarding nude sexts.

In McCue's (2016) sample of college students the majority of participants who indicated that they had received a sext or taken an image of someone had

kept it to themselves. In identifying the recipients of forwarded images, 27% stated that they had forwarded it to someone that they were sexually/romantically involved with, 8% forwarded it to a potential partner, and 5% sent it to someone who they were not in any sexual/romantic relationship with.

Strassberg et al. (2014) found that overall 7.8% of their sample of undergraduate students had forwarded an image to at least one other person. When this was restricted to students who had reported receiving a sext, 18.7% forwarded the picture. In their sample of rural high school students, 7% of participants in Woodward et al.'s (2017) reported having forwarded nude messages.

Thompson & Morrison (2013) found that 16.3% of their sample of male university students had shared a sexually suggestive message or picture with someone other than the person it was originally meant for.

**Gender differences in student populations.**

Gender differences have also been explored within student populations. A study covering five countries across Europe (Bulgaria, Cyprus, England Italy and Norway) by Wood et al. (2015) found that males shared images of a partner at a higher rate than females, with these gender differences being significant in Bulgaria ($X2(1)=4.107$, $p<.05$). Similarly, Stocker (2014) found that males showed pictures they received of someone they knew at higher rates than females (27.78% vs 10.69%). Strassberg et al. (2013) reported gender rates similar to those mentioned in their sample of private high school students, with 27% of males reporting having shared an image and females reporting sharing an image of someone 21.4%. During their 2017 study on private high school students, Strassberg et al. found the prevalence rates had significantly decreased in comparison to their 2013 study, with 12.2% of males reporting forwarding a sexually explicit picture (compared with 27% in 2013, $x2(1)=11.37$, $p<.001$) and 7.6% females reporting sharing a sexually explicit image (compared with 21.4% four years previous, $x2(1)=8.2$, $p<.005$). Again, gender differences in a third paper by Strassberg et al. (2014) fell along the same lines as those previously reported, with males three times more likely to forward sexual images than females (12.3%; 4.7%, $p<.001$). When analysis

was restricted to participants who had reported receiving a sext, 24.2% of males and 13% of females reported forwarding the image (overall 18.7%). This gender difference was again significant. In their sample of college students, Reed et al. (2016) found that 1.1% of females and 0.7% of men had shared a sexually suggestive image of their partner without permission, with 0.5% females and 0.7% males reporting threatening to share a sexually suggestive image of their partner.

**Non student-only populations**

The AP-MTV (2009) study on members of the public found that 17% of recipients of a naked image had further shared the image with a third party, and 55% of these had shared it with more than one person.

In a study of youth, Mitchell et al. (2012) found that 3% of their participants reported forwarding received sexual images onto others. Boulat et al. (2012) reported that the prevalence of individuals forwarding a sext of any nature was 2.15%.

Morelli et al. (2016b) found that 12.59% of adolescents and young adults reported that they had shared sexts about someone else without his/her consent on at least one occasion. Similarly, Stocker (2014) found that 14% of young adult participants had shown a "*nude or semi-nude picture that was sent to them of someone they knew to others when it was meant to be confidential*". When the time frame was restricted to the last year this figure was 6%.

**Gender differences in non-student only populations.**

Gender differences and perpetration have also been explored. Eaton et al. (2017) reported that overall 5.2% of their sample of male and female internet users had shared a sexually explicit image without their consent. Males were significantly more likely to report perpetration than females (males 7.4%; females 3.4%). Furthermore, participants between the ages of 18-25 reported the highest levels of perpetration (8.2%).

**International differences in perpetration and victimisation prevalence**

As part of this review, prevalence rates according to the country that the

study took place in were looked into. Overall, 74% of the studies included in this review took place in the USA, and therefore a large proportion of the data is from one area. The remainder of the studies were from Australia (2 studies), Italy (2 studies), UK (1 study), Africa (1 study), Spain (1 study), Sweden (1 study), Europe wide (1 study). The prevalence rates were looked into according to the location that studies took place in. In student populations, prevalence figures vary significantly, both within and between countries, for example student perpetration rates in the USA range from 0.7% for male perpetrators (Reed et al., 2016) to 35.2% of total sample (Hudson et al., 2014). Perpetration rates for student samples in countries outside of the USA ranged from 8.6% (Patrick et al., 2016) to 30.2% for student sexters in Africa (Makgale et al., 2017).

The wide variance of figures appears similar when looking at perpetration rates in non-student only populations between countries. For example, in the USA, prevalence rates in this systematic review are found to fall between 3% (Mitchell et al., 2012) and 17% (AP-MTV, 2009). Findings also appear dissimilar when identifying rates outside of the USA; Boulat et al., (2012) found prevalence to be 2.15% in Australia, and Morelli et al., 2016b) found perpetration rates to be 12.59%. Given these range of figures, it appears that sexting rates may vary due to extraneous variables which may make identifying similarities and differences of rates between countries problematic.

Similarly, the rates of victimisation in student samples between countries appear different. For example, in the USA, rates of student victimisation fall between 1.5% (Dick et al., 2014) and 26% (Englander, 2012). In non-student-only populations the rates of victimisation within this review are between 2.39% (Sticker, 2014) and 14% AP-MTV (2009) in the USA. There is one study (Gamez-Guadix et al., (2015) outside of the USA which reported victimisation rates and this figure was 1.1%. Given these range of figures, it appears that sexting rates may vary due to variables including measurement, definitions of sexting used by researchers and the populations studied. This may make identifying similarities and differences of rates between countries difficult to establish.

Table 5: Prevalence of Perpetration/victimisation/third party/other characteristics in student only populations

| Study no | Author, year of publication & location | Perpetration of forwarding image prevalence | Victimisation prevalence | Third party receivers/Awareness of images | Other findings |
|---|---|---|---|---|---|
| 1 | Phippen (2011) United Kingdom | | Incidence Estimate: Participants asked whether they are aware of any times where such a picture/ video was shared further than just the person it was sent to. 56% participants answered yes. Results constrained to children who have had personal contact with sexting (n=202): 73% indicate an awareness that the images have been passed on to a third party. | | 23% indicated an awareness that the images shared were to upset someone |
| 3 | Brenick, Flannery, & Rankin (2017) USA | | | | Multiple regression showed gender and relationship status to be predictive of sharing sexts ($F(2,158)=8.70$, $p<.001$). Gender: Males more likely to share |

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| | | | | | received sexts with others.<br>Relationship Status: Single individuals are more likely to share received sexts with others.<br><br>Participants believe sharing a sext of a known individual than an unknown individual significantly worse ($F(1,153)=22.75$, $p<.001$; ηp2=.13)<br>Females believe it to be significantly worse to share a sext than males ($F(1,153)=18.47$; $p<.001$; ηp2=.10). |
| 4 | Crimmins, Seigfried-Spellar (2014)<br>USA | | 11% (n=6) of sexters were aware a *semi-nude* photo/video had been shared with third parties without their consent.<br>7% (n=4) aware a *nude* photo/video had been shared without consent | | |

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| 5 | Dir & Cyders (2015) USA | | Of 175 participants reported sexting 12% reported their sext being forwarded by the recipient to others (friends and school). | 42% of participants knew of a friend whose sexts had been sent to other people. | Neither gender or impulsivity significantly correlated with experience of negative sexting consequences. Negative sexting consequences significantly related to mobile phone sexting (r=.40, df=248, p=.001) and social networking site sexting (r=.18, df=248, p= .004). |
| 6 | Drouin, Vogel, Surbey, & still (2013) USA | Real forwarding: 3% committed partner; 15% casual sex partner' 21% cheating partner. | | | Perceived risk and real risk of forwarding images according to type of relationship. Of subsample who indicated they had sent sexually explicit pictures: Feared forwarding: 26% committed partners; 53% casual sex partners; 46% cheating partners.<br><br>Casual sex partners and cheating 2 x |

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| | | | | | likely to fear images being shared compared with those in committed relationships.<br><br>Casual sex partners 5 x likely to forward pictures. Cheating relationship's 7x likely to forward pictures partners sent them. |
| 7 | Englander (2012) USA | | 26% of participants who reported sexting also reported image was shown to third party (14% non-pressured sexters, 36% pressured sexters). | | Participants reporting pressure to sext significantly more likely to report having image seen by 1 or 2 other people, or by 3 or more compared with non-pressured sexters (X2=632.31,p<.000). 13% of sexters reported problems with other children at school seeing the image(s). |
| 8 | Fleschler Peskin, Markham, Addy, | OVERALL SAMPLE: Shared Sexts originally meant for them: 8.8% (black | | Of 246 participants, 35% had semi-nude image shared with | |

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| | Shegog, Thiel, Tortolero (2013) USA | female 7.6%, Hispanic female 6.4%, black male 12.6%, Hispanic male 11.4%)<br><br>Subsample of those who participated in sexting: of 126 participants 36.5% shared a semi-nude/nude image with a third party. | | them (originally meant to be private).<br><br>Had nude/semi-nude image (originally meant to be private) shared with them: Overall 18.2% (black female 17.9%, Hispanic female 11.8%, black male 30.5%, Hispanic male 20.3%) | |
| 10 | Hudson, Fetro, & Ogletree (2014) USA | "*shared a sexy message/picture/video with someone other than the one(s) originally meant*" – lifetime 35.2%; last 30 days 14.9%. | | Lifetime: "*had a sexy message/picture/video (originally meant to be private) shared with me"* – lifetime - 63.7%; last 30 days - 23.7%. | |
| 11 | Makgale & Plattner (2017) Botswana | Among sexters, 30.2% had forwarded sexts to third parties. | | | 36.7% worried about sexts (images or messages in this instance) being forwarded. Those who had forwarded sexts were significantly more likely to be worried about theirs being |

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| | | | | | forwarded ($\chi 2$ (1) = 32.1, p = .000) |
| 12 | Marganski & Melander (2015) USA | | Sample of 540: Has partner "*sent others a private, intimate picture, or video that you shared with him or her without your permission*"? 6.3% indicated yes. | | |
| 13 | McCue (2016) USA | 5% - sent it to someone who they did not have sexual interest in/relationship with.<br>8% forwarded it to potential boyfriend (sexual interest no relationship)<br>27% forwarded it to someone they were sexually and/or romantically involved with<br>5% contacted the person in the image/video.<br>0% put it on social media. | (3%) participants stated an image had been shared of them. | | Majority of sext receivers/or reported taking image of someone else kept image to themselves.<br>Influencing factors for not sharing the image would be:<br>Fear of being caught 44%<br>Fear of hurting a friend 54%<br>Fear of becoming a registered sex offender 41%<br>Money 5%<br>Fear of being dismissed from school 35%<br>Awareness of the effects it may have on individual in image 75% |

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| | | | | | Other 15% |
| 17 | Perkins, Becker, Tehee, & Mackleprang (2014) USA | Of those who indicated they had engaged in sexting, 22% of participants have forwarded semi-nude sexts they have received. 20% reported forwarding nude sexts. | Victimisation: 19% of participants reported having their semi-nude sexts forwarded and 12% reported having their nude images forwarded | | |
| 18 | Priebe & Svedin (2012) Sweden | | Participants asked in the past year have you "*found that others disseminated sexual pictures/films of you electronically or digitally*"?<br>Males: Heterosexual – 2.0%; sexual minority – 10.4% (5.7% 95% CI)<br><br>Female: Heterosexual – 1.5%; sexual minority - 3.3% (2.3% 95% CI)<br><br>Total male sample (1,578) - 2.6% | | Males higher rates than females of victimisation.<br><br>Sexual minority higher rates of victimisation that heterosexual. |

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| | | | Total female sample (1,827) – 1.7% | | |
| 20 | Wood, Barter, Stanley, Aghtaie, & Larkins (2015) Europe | Perpetration: You shared an image you received from your partner<br>Bulgaria – female 18%; male 30%<br>Cyprus – female <5; male 28%<br>England – female 13%; male 15%<br>Italy – female 12%; male 18%<br>Norway – female 11%; male 16% | Victimisation: Partner shared an image you sent<br>Bulgaria – females 9%; males; 12%<br>Cyprus – less than 5 (cell counts too low)<br>England – females 42%; males 13%<br>Italy – female <5; male 9% (cell counts too low)<br>Norway – females 27%; males 12% | | Significant Victimisation gender difference between males and females in England (X2(1) = 22.135, p < .001).<br><br>Significant victimisation gender differences in Norway (X2(1) = 4.827, p b .05)<br><br>Significant perpetration gender differences in Bulgaria significant difference (X2(1) = 4.107, p < .05) |
| 22 | Strassberg, McKKinnon, Sustaita, & Rullo (2013) USA | Of those who had received a sext, rates of forwarding:<br>Males – 27%<br>Females – 21.4% | | | Higher perpetration rates in males. |

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| 23 | Strassberg, Cann, Velarde (2017)<br>USA | Males 12.2%<br>Females: 7.6% | | | Rates of forwarding sexually explicit cell phone pictures – males 12.2% (vs 27.2% four years previous when surveyed. Significant difference X2[1]=11.37, p<.001)<br>Females 7.6% (vs 21.4% four years prior, significant difference X2[1]=8.2, P<.005).<br>Pattern of sext forwarding has changed considerably. |

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| 24 | Strassberg, Rullo, & Mackaronis (2014) USA | Total: 7.8% (Males 3 x more likely to forward than females).<br><br>Stated another way, of the 411 students reported receiving a sext, 18.7% forwarded the picture males= 24.2%; females=13% | | | Males 3x more likely to forward than females. (12.3%; 4.7%). This is significant. X2 (1, N = 1053) = 20.48, p < .001.<br><br>Of those who have received a sext, males significantly more likely to forward (X2 [1], N = 411 = 8.42, p < .005). |
| 26 | Woodward, Evans, & Brooks (2017) USA | Forwarded nude messages – 7%. Forwarding messages excluded from other analyses due to low frequency. | | | |
| 27 | Zemmels & Khey (2015) USA | | | Free text box: two respondents wrote that they received images forwarded from others (4.57%). | |
| 30 | Dick, McCauley, Jones, Tancredi, Goldstein, Blackburn, | | Cyber dating abuse perpetrated by a partner: *"posted or publicly shared a nude or seminude picture of you"* | | |

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|---|---|---|---|---|---|
| | Monasterio, James, Silverman, & Miller (2014) USA | | Total – 1.5%<br>Male – 2.1%<br>Female – 1.3% | | |
| 31 | Reed, Tolman, & Ward (2016) USA | Perpetration (Women;men)<br>*"shared a sexually suggestive image of my partner(s)without permission"*<br>Ever: (1.1%;0.7%)<br>Past year: (0.5%;0.7%)<br><br>*"Threatened to distribute an embarrassing/sexually suggestive image of my partner(s)"*<br>Ever: (0.5%'0.7%<br>Past Year: (0.5%;0.7%) | Victimisation (women; men)<br>*"shared a sexually suggestive image of me without permission"*<br>Ever: (1.6%;2.9%)<br>Past year: (1.6%;2.9%)<br><br>*"threatened to distribute an embarrassing/sexually suggestive image of me"*<br>Ever: (1.6%;1.5%)<br>Past year: 1.6%;1.5%) | | |
| 32 | Patrick, Heywood, Pitts, & Mitchell (2015) Australia | Participants asked whether they had *"sent a sexually explicit nude or nearly nude photo/video of someone else"*<br>Male - 13.9%<br>Female - 5.3%<br>Total - 8.6% | | | |

| | | | | | |
|---|---|---|---|---|---|
| 33 | Thompson & Morrison (2013) USA | Participants asked whether they had "*shared a sexually suggestive message or picture with someone other than the person it was originally meant for".* – 16.3% yes. | | | |
| 34 | Strohmaier, Murphy, & De Matteo (2014) USA | 26% of participants reported that as a minor they had forwarded/shared a sext with others. | 11% reported having a sext that they had sent being forwarded with others by intended receiver. | | |

## Prevalence of victimisation

### Student Populations.

Dick et al., (2014) found that 1.5% of their sample of youth students had experienced a partner posting or publicly sharing a semi-nude/nude picture of them (males= 2.1%; females= 1.3%). Reed et al. (2016) reported comparable prevalence rates of victimisation, with 1.6% of women and 2.9% of men reported having someone sharing a sexually suggestive image of them without permission ever. Interestingly they identified participants in which had been threatened with the sharing of their images in their lifetime (men= 1.6%, females= 1.5%).

Marganski and Melander (2015) found that 6.3% of participants indicated that their partner has previously "*sent others a private intimate picture or video*" without their consent.

In their sample of university students, Perkins et al (2014) found that 19% of participants reported having their semi-nude sexts forwarded, and 12% reported that their nude images had been forwarded. In Strohmaier and Murphy's (2014) study, 11% of participants reported knowing a sext they had sent had been forwarded with others by the intended receiver.

### Non-student populations.

Victimisation in non-student only populations has been explored. Figures for this range from 1.1% (Gámez-Guadix et al. 2015) to 14% (AP-MTV, 2009).

Table 6: Prevalence of Perpetration/victimisation/third party/other characteristics in non-student-only populations

| Study no | Author, year of publication & location | Perpetration of forwarding image prevalence | Victimisation prevalence | Third party receivers/Awareness of images | Other findings |
|---|---|---|---|---|---|
| 2 | AP-MTV (2009) USA | 13% females 9% males had sent a naked image. 17% of recipients indicated they had further shared the image received. 55% of participants who had shared an image reported sharing it with more than 1 person. | 14% of participants who had sexted believe the image was further shared. | | Reasons for forwarding:<br>- other people want to see them (52%)<br>- desire to show off (35%)<br>- boredom (26%)<br>- as a joke (31%)<br>- to be funny (30%) |
| 9 | Gámez-Guadix, Alemendros, Borrajo, Calvete (2015) Spain | | Prevalence of others "*disseminating or uploading to the internet photos or videos of you with erotic or sexual content without your consent*". Overall 1.1%, males (1.8%) females (0.8%).<br>Age groups:<br>18-24 - 1.2%<br>25-34 - 1.5%<br>35-44 - 0.7% | | No significant difference between age or gender in victimisation. |

| | | | | | |
|---|---|---|---|---|---|
| | | | 45-60 0.0% | | |
| 14 | Mitchell, Finkelhor, Jones, & Wolak (2012) USA | 3% reported forwarding received images. | | | |
| 15 | Morelli, Bianchi, Baiocco, Pezzuti, & Chirumbolo (2016a) Italy | | | | Younger people showed higher levels of 'not allowed sharing of sexts' than older participants ($p < .01$). Gender positively correlated with not allowed sharing of sexts ($p < .01$) . Sexual orientation not related. Not allowed sharing of sexts significant predictor of dating violence perpetration $B = .08$, $p < .05$). Interaction between not allowed sharing of sexts and benevolent sexism significant predictor of dating violence ($B = -.12$, $p < .001$). When benevolent sexism low, there is a |

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|---|---|---|---|---|---|
| | | | | | positive relationship between not allowed sharing of sexts and dating violence perpetration (B = .30, t = 4.74, p < .001). Interaction between not allowed sharing of sexts and high hostile sexism was significant. When hostile sexism is high there is a positive correlation between not allowed sharing of sexts and dating violence (B=.19, t=4.25, p< .001). |
| 16 | Morelli, Bianchi, Baiocco, Pezzuti, & Chirumbolo (2016b) Italy | 12.59% of participants reported that they had shared sexts of someone else without his/her consent on at least one occasion. | | | |
| 19 | Eaton, Jacobs, Ruvalcaba (2017) USA | Perpetration *Have you ever knowingly shared a sexually-explicit image or video of someone without his/her consent? 5.2%* | Had image/video Shared: 8% (males 6.6, females 9.2)<br><br>Threatened but was not distributed: 4.8% | | Men significantly more likely to report perpetration than females.<br><br>Females significantly more likely to have been victims of non- |

| | | | | | |
|---|---|---|---|---|---|
| | | Gender perpetration: males 7.4%; females 3.4%. | (males 2.6, females 6.6)<br><br>Total: 12.8% (males 9.3, females 15.8) | | consensual pornography than males.<br>Ages 18-25 show highest levels of NCP perpetration (8.2% perpetration rate)<br><br>Ages 34-41 report highest levels of NCP victimisation (12.4%). |
| 21 | Stocker (2014) USA | Non-malicious intent Perpetration: *"Shown a nude or semi-nude picture that was sent to them of someone they knew to others when it was meant to be confidential" – 14% yes. 62% indicated this occurred 1-2 times.*<br>*95.83% indicated no malicious intent.*<br>*Gender: 10.69% females and 27.78% males showed a picture they received of someone they knew to others. Figures for* | Non malicious intent Victimisation "*sent someone a nude or semi-nude picture of themselves in the last year...control lost and more people than intended saw it*" - 2.39% yes. Of those, 40% reported it happened 5-6 times, 20% reported it happened 3-4 times, and 40% reported it happened 1-2 times.<br>Gender: 7.58% females and 5.56% males had send picture of themselves | *Asked if participants "had been sent a nude or semi-nude picture of someone they did not know and showed it to others when it was meant to remain private within the last year" – 6% yes. 81% stated it occurred 1-2 times. 81.82% indicated no malicious intent.* | |

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|---|---|---|---|---|---|
| | | *showing a picture to others that they had received of someone they did not know was 11.11% of males, and 5.39% of females.*<br><br>Malicious intent Perpetration: "*within the last year…asked someone to send them a nude or semi-nude picture of themselves with the intent to share it with others*" – 1.80% yes. | where control was lost.<br><br>Malicious intent: Victimisation: *"in the last year someone had asked them to send them a nude or semi-nude picture of themselves…believed that the other person had the intent to hurt them by showing it to others"* – 9% yes (6.57% did then send the image). | | |
| 25 | Wolak, Finkelhor, & Mitchell (2012) USA | Of cases handled: Images were forwarded by recipient according to case type:<br>Adult involved/aggravated – 8%<br>Youth-only aggravated - 54%<br>Experimental - 0<br>All cases – 20% | | | |
| 28 | Boulat, Caddaye, D'Souza, Glyde, Hatwal, | Perpetration: Forwarded a sext of any nature – 2.15% of respondents. | | | |

| | | | | | |
|---|---|---|---|---|---|
| | Jansz, Stephens, & Zoppos (2012) Australia | | | | |
| 29 | The National Campaign to Prevent Teen and Unplanned Pregnancy (2008) USA | | | Participants as receivers:<br>Total=29%<br>Teen girls=25% Teen boys=33%<br>(have received nude or semi-nude images originally meant for someone else shared with them)<br><br>Young adult females=24%<br>Young adult Males=40%<br>Total 32% | Higher percentage of males receive nude or semi-nude images originally meant for someone else and have been shared with them than females. |

**Awareness of images shared/Third Party Receivers**

The National Campaign to Prevent Teen and Unplanned Pregnancy (2008) found that 25% of teen girls and 33% of teen boys received a semi-nude/nude image originally meant for someone else (29% overall). This figure was similar for young adult women and men (24%; 40%, respectively and 32% overall). Phippen's (2011) research indicated that 56% of respondents were aware that an image had been shared with more than the person it was intended for, with 23% of these indicating that the images were shared to upset someone. When the results were constrained to children who have had personal experience of sexting this figure rose to 73%. Dir and Cyders (2015) found that 42% of participants knew of a friend whose sexts had been forwarded to others.

In a sample of 10$^{th}$ grade students, Fleschler Peskin et al. (2012) found that 35% had semi-nude images shared with them that were originally meant to be private. Similar to this, Hudson et al. (2014) found that in a lifetime 63.7% of student participants had received a *"sexy message/picture/video"* that was originally meant to be private. This figure was 23.7% when the time frame was reduced to the last 30 days.

Zemmels and Khey (2015) provided a free text box for participants and 4.57% participants wrote that they had received images forwarded from others.

Wolak et al. (2012) conducted a study using data provided from law enforcement agencies of youth produced sexual imagery in 2008/09 and found that 20& of the cases handled involved the forwarding of a sexual image.

**Other characteristics**

**Relationship characteristics.**

Brenick et al (2017) found within university students, gender and relationship status to be predictive of sharing sexts, $F(2,158)=8.70$, $P<.001$, with males more likely to share received sexts with others and single individuals more likely to share received sexts with someone else. Drouin, Vogel, Survey & Still's (2013) research on university psychology students found that casual sex partners and cheating partners were twice as likely to fear images being shared

than those in committed relationships. In terms of actual forwarding of images, casual sex partners were five times as likely to forward pictures, and those in cheating relationships were seven times as likely to forward pictures that their partner had sent them in comparison to those in committed relationships.

**Impulsivity.**

Using the Impulsive Behavior Scale (UPPS-P; Lynam, Smith, Cuders, Fischer, & Whiteside, 2007), Dir and Cyders (2015) found that neither gender or impulsivity significantly correlated with experience of negative sexting consequences (image being shared).

**Social Networking.**

Dir and Cyders (2015) found that negative sexting consequences such as images being shared were significantly related to mobile phone sexting ((r=.40, df=248, p=.001) and social networking site sexting (r=.18, df=248, p= .004).

**Sexual Orientation.**

Morelli et al. found that sexual orientation had no relationship with the not allowed sharing of sexts. Contrastly, Priebe and Svedin (2012) found sexual minorities have higher rates of victimisation that heterosexual participants. The rates of sharing of sexual pictures according to sexual orientation and differences, with 2% of heterosexual males and 10.4% of sexual minority males indicating that they found that others had "*disseminated sexual pictures/films"* of them (5.7% average, 95% CI). For females these figures were 1.5% (heterosexual) and 3.3% sexual minority (2.3% average, 95% CI).

**Pressure to Sext and victimisation.**

Englander's (2012) study on 18-year-old students found that 26% of participants who reported sexting indicated that the picture was shown to a third party. Interestingly the rates were higher for participants who described not being pressured to sext compared with those who reported being pressured to sext (14% and 36%, respectively; X2=632.31, p<.000).

**Motivations for forwarding.**

Reasons for forwarding images were explored in the AP-MTV (2009) research study. Reasons for forwarding include a desire to show off, boredom, to be funny and because other people want to see them. Phippen (2011) indicated that of the participants who had an awareness that an image was shared, 23% highlighted that they had an awareness that the purpose was to upset someone. Interestingly, McCue (2016) explored reasons why an individual would not forward sexts onto third parties. These reasons included fear of being expelled/suspended from school, fear of being caught, and having an awareness on effect it may have on the individual in the image.

Table 7a: Overview of upper/lower figures for prevalence rates

The table below outlines the figures for perpetration and victimisation according to population.

| Population | Perpetration | | Victimisation | |
|---|---|---|---|---|
| | Lower figure | Upper figure | Lower Figure | Upper figure |
| Students | 0.9% (Reed et al., 2016) | 35.2% (Hudson et al., 2014) | 1.6% (Reed et al., 2016) | 26% (Englander, 2012) |
| Non student-only | 2.15% (Boulat et al., 2012) | 17% (AP-MTV, 2009) | 1.1% (Gamez-Guadix et al., 2015) | 14% (AP-MTV, 2009) |
| All sexters | 3% (Drouin et al., 2013) | 36.5% (Fleschler Peskin et al., 2013) | 14% (AP-MTV, 2009) | 73% (Phippen, 2011) |
| Total sample | 0.9% (Reed et al., 2016) | 35.2% (Hudson et al., 2014) | 1.1% (Gamez-Guadix et al., 2015) | 6.3% (Marganski & Melander, 2015) |

Table 7b: Overview of prevalence rates for all studies

| Authors | Mean age in years (Where reported) | Perpetration prevalence figure | Victimisation prevalence figure |
|---|---|---|---|
| *STUDENT POPULATIONS* | | | |
| Phippen (2011)<br>United Kingdom | - | - | 73% |
| Crimmins, Seigfried-Spellar (2014)<br>USA | - | 7-11% | |
| Dir & Cyders (2015)<br>USA | M=21.4 (SD=4.18) | 12% | |
| Drouin, Vogel, Surbey, & still (2013)<br>USA | M=19.47 (SD 1.54) | 3%-21% | |
| Englander (2012)<br>USA | 18 | - | 26% |
| Fleschler Peskin, Markham, Addy, Shegog, Thiel, Tortolero (2013)<br>USA | M=16.3 (SD=.68) | 36.5% | |
| Hudson, Fetro, & Ogletree (2014)<br>USA | - | 35.2% | - |
| Makgale & Plattner (2017)<br>Botswana | M=20.3 | 30.2% | |
| Marganski & Melander (2015)<br>USA | M=19.5 (SD=1.6) | - | 6.3% |
| McCue (2016)<br>USA | M=22.35 | 5%-27% | 3% |
| Perkins, Becker, Tehee, & Mackleprang (2014)<br>USA | M=18.97 (SD=1.09) | 20-22% | 12-19% |
| Priebe & Svedin (2012)<br>Sweden | M=18.3 | - | 1.7-2.6% |
| Wood, Barter, Stanley, Aghtaie, & Larkins (2015)<br>Europe | (M=14.73 England & 15.29 Italy) | 12%-30% | 9%-42% |
| Strassberg, McKKinnon, Sustaita, & Rullo (2013)<br>USA | - | 21.4%-27% | - |
| Strassberg, Cann, Velarde (2017)<br>USA | - | 7.6%-12.2% | - |
| Strassberg, Rullo, & Mackaronis (2014)<br>USA | - | 7.8% | - |

| | | | |
|---|---|---|---|
| Woodward, Evans, & Brooks (2017)<br>USA | M=15.9 (SD=1.24) | 7% | - |
| Dick, McCauley, Jones, Tancredi, Goldstein, Blackburn, Monasterio, James, Silverman, & Miller (2014)<br>USA | - | - | 1.5% |
| Reed, Tolman, & Ward (2016)<br>USA | M=18.66 | 0.9% | 1.6% |
| Patrick, Heywood, Pitts, & Mitchell (2015)<br>Australia | - | 8.6% | - |
| Thompson & Morrison (2013)<br>USA | M=18.56 (SD=0.51) | 16.3% | |
| Strohmaier, Murphy, & De Matteo (2014)<br>USA | M=19.54 (SD=1.35) | 26% | 11% |
| *NON STUDENT-ONLY POPULATIONS* | | | |
| AP-MTV (2009)<br>USA | - | 17% | 14% |
| Gámez-Guadix, Alemendros, Borrajo, Calvete (2015)<br>Spain | M=31.11 (SD=9.58) | - | 1.1% |
| Mitchell, Finkelhor, Jones, & Wolak (2012)<br>USA | 10-17 | 3% | |
| Morelli, Bianchi, Baiocco, Pezzuti, & Chirumbolo (2016b)<br>Italy | 20.8 (SD=4.3) | 12.59% | |
| Eaton, Jacobs, Ruvalcaba (2017)<br>USA | M=40.31 (SD=19.02) | 5.2% | 4.8-8% |
| Stocker (2014)<br>USA | M=22.3 | 14% | 2.39% |
| Boulat, Caddaye, D'Souza, Glyde, Hatwal, Jansz, Stephens, & Zoppos (2012)<br>Australia | - | 2.15% | |

**Spearman's Rank Correlation**

A Spearman's rank correlation was carried out using all prevalence data from studies that had identified perpetration of sharing images and the year of publication (Appendix G). This was carried out to explore the data initially. There was a negative but not significant correlation between prevalence rate and year ($p>.05$) for sexters and entire sample.

A Spearman's rank correlation was also carried out using victimisation data provided in Appendix G, and no significant correlation was found ($p>.05$) within sexters or the entire sample. It is possible that no correlation was found due to the different methodologies and definitions used within the studies. As a result of this, all further meta-analyses were deemed inappropriate.

## Discussion

The main aims of this systematic review were to determine the prevalence rates of sexual images that are forwarded onto third parties. This was in addition to synthesising the findings from previous research studies that have explored this area.

Ultimately, the aim is to prevent the non-consensual sharing of sexual images to third parties, and be able to intervene appropriately in such cases that have occurred to prevent further damage. Currently, this issue appears to be gaining momentum in research and attention is being paid to establishing its occurrence. This is an integral step in being able to mitigate against future risk of it occurring.

### Overall Prevalence Rates

Within the results, it is considered that there are large discrepancies in the prevalence rates for perpetration and victimisation and these can be viewed in Table 7a and 7b. The prevalence rates of forwarding a sext onto a third party ranged between 3% (for those in committed relationships, Drouin et al., 2013) and 36.5% for participants involved in sexting (Fleschler Peskin et al., 2013). This indicates a large discrepancy between rates. In terms of victimisation, the prevalence rates of having an image forwarded to a third party within total samples fall between 1.1% (Gamez-Guadix et al., 2015) and 6.3% (Marganski & Melander, 2015) suggesting that the prevalence rates of total samples are similar. However, when confined to individuals who have had involvement in sexting, the prevalence rates of having a sext forwarded range between 14% (AP-MTV, 2009) and 73% (Phippen, 2011). This is a very large difference in prevalence rates and the large variance in prevalence rates has been previously highlighted (i.e. Strassberg et al., 2017). The majority of the research included within this review was carried out using opportunistic sampling, on students.

This is an important issue to raise because this may not be representative of the general population. In addition to this, those students have been predominantly female and therefore this sampling bias may have had a bearing on the overall findings that may or may not be a true representation of the general public. Therefore, it remains difficult to draw any comparisons in prevalence rates due to the inconsistency in the methodologies used by researchers.

**Gender Differences**

A number of studies have explored to some degree gender differences. Priebe and Svedin (2012) found that males have higher rates of victimisation in males than females. Wood et al., (2015) found that females significantly higher rate of victimisation than males in England and Norway.

In terms of perpetration, Wood et al., (2015) found higher rates of male perpetrators than females. These gender differences have also been found by Strassberg et al., 2013, 2017) and in 2014 Strassberg et al. found that males were three times more likely to forward a sexual image/video than females. Males were found to commit higher rates of perpetration than females in Patrick et al.'s (2015) and Fleschler Peskin et al.'s (2013) research. Gamez-Gaudix et al (2015) found no significant gender differences. Eaton et al. (2017) found that males were significantly more likely to report perpetration than females, and females were significantly more likely to be victims of non-consensual pornography. Similar gender difference were found in Stocker (2014) research, with males reporting higher levels of perpetration and females showing higher levels of victimisation. The National Campaign to Prevent Teen and Unplanned Pregnancy (2008) explored gender differences in those who had been the third party receivers of non-consensual pornography (receiving images originally meant for someone else). They found that in comparison to females higher percentages of males receive nude or semi-nude images originally meant for someone else. This review has also highlighted some other characteristics that may be factors associated with the forwarding of sexual images. There is some support for gender differences, with many studies findings that males are at a higher likelihood of forwarding sexual images onto third parties, and females are at a higher rate of being victimised from this (i.e. Dick et al, 2014; Eaton et al., 2017, Stocker, 2017).

**Age Differences**

In addition to gender, age differences have been explored. Gamez-Gaudix et al., (2015) found higher rates of victimisation in individuals aged between 25-34 but these were not significant when compared with other age groups. Morelli et al., (2016a) found that younger people showed significantly higher levels of perpetration than older participants. Similarly, Eaton et al. (2017) found that younger individuals aged between 18-25 showed the highest levels of perpetration and those aged between 34-41 reported the highest levels of victimisation.

When looking at age differences across the studies included within the systematic review (Table 7b) it appears that the majority of research has been carried out on younger populations who are in education. Where the individual studies have identified the mean age of participants, the majority of participants fall between the ages of 15 and 25. Despite this, the prevalence figures for perpetration and victimisation still vary considerably and are difficult to compare. This may again be due to the definitions of sexting used, or methods used to recruit participants. Furthermore, Eaton et al.'s (2017) study is the only study that has identified the mean age of participants being over 40. Given this, any comparisons between this and younger samples is not appropriate. It may therefore be important to research this further due to the potential for the findings within studies to not be generalisable to wider populations.

The findings suggest that it is adults too who are experiencing the effects of having sexual images of them shared without their consent. However, what is important to note is that whilst many sexting may have historically been viewed as something that young people engage in, the rates of forwarding images, and non-consensual pornography appears to be similar between adults and younger individuals. Currently, there are campaigns to educate young individuals and students about the dangers of sexting (i.e. NSPCC, 2018) and this systematic review supports the need for this. However, it is also important to recognise that the victimisation extends beyond young people and so it is vital that all ages are receiving education about sexting and the implications of engaging in sexting.

Whilst one of the primary aims of this review was to establish prevalence

rates, it appears that the prevalence rates within this review appear to differ between studies. It is possible that there are reasons for this beyond the gender, age and population of the participants included. Strassberg et al (2017) point out within their study that the definition of sexting varies within different studies. Within this systematic review question, the definition of forwarding sexts, varied terms have been utilised to describe the forwarding; such as 'sexual', 'private' and 'provocative'. Therefore, this leaves an element of interpretation by the participant, which is important to highlight and may affect the overall prevalence rate responses.

There are further reasons that prevalence rates may vary and these in part may be due to the issue gaining momentum within research and bringing attention to this act, fostering an awareness of it. Alongside the awareness of sexting, the awareness of the risks and potential hazards in engaging in it may be highlighted to people, and this education and awareness may prevent people from sexting to avoid any of the associated negative consequences such as having images forwarded. Furthermore, factors such as use of social media, and developing smartphone technology may have a role to play in the prevalence rates, although the degree of which this may be the case falls beyond the scope of this review. The method of transmission is also an important element for consideration, where prevalence rates may vary according to the mode of dissemination, and the paucity of research within this area requires attention.

In addition to the above, in relation to the differing prevalence rates, many of the research studies utilised questionnaires that they had either developed themselves, or have adapted from previous questionnaires. Whilst this is helpful, the many different variations of essentially the same question may have a bearing on the responses. As sexting is a relatively recent research area, it is understandable that the standardisation of questionnaires to measure variants of sexting is recently being developed (i.e. Sexting Behaviors Scale, Chacón- López, Romero Barriga, Carretero & Jesús Caurcel, 2016).

In addition to this, relationship status has been found to be a potential influencing factor in the forwarding of sexual images to third parties, with those who are single, in casual sexual relationships or those who have been unfaithful in relationships more likely to engage in the forwarding of sexual images (i.e.

Brenick et al, 2017; Drouin et al., 2013).

### Limitations

This systematic review was carried out using rigorous methods described above. However, despite this, it was not possible to include literature written in other languages and as such, studies written in foreign languages were excluded. There were also two papers which despite extensive attempts to source them (contacting authors, University of Nottingham Library, and The British Library) were not possible. These papers may have otherwise been included within this review.

A further limitation of this review is that the studies included were cross sectional in nature and therefore are representative of a data taken at one point in time. Therefore, any findings are indicative of associations with the forwarding of sexting. Furthermore, the majority of samples were students, and females which may not be representative of a general population. However, what can be drawn from this systematic review is that there is a deeper level of understanding of prevalence of forwarding sexts within student populations, and this is helpful.

## Conclusion and recommendations

This review has highlighted the prevalence rates within different populations, and the discrepancy within those, but particularly within student populations. It is therefore suggested that future research be focused on establishing further prevalence rates across other populations as well as paying further attention to the difference contexts in which the forwarding of images takes place. Further research into standardisation of tools used to measure prevalence and characteristics within this area is required.

Furthermore, this review has also highlighted the limited knowledge that we have on the personality traits and characteristics within individuals who further share texts with third parties without consent. In addition, there is a paucity of research in relation to the characteristics of individuals who have their image shared without their consent, such as sexual orientation, and relationship characteristics. Furthermore, it is important to acknowledge that the papers

within this review have highlighted some factors that may be associated sharing sexual images with third parties (for example age, gender). However, there appears to be a paucity of research examining more psychological characteristics of individuals who may engage in the forwarding of images. Few studies within this review have highlighted some characterological factors and therefore it may be important to further research this area. This may include such characterological factors such as the attachment style, particularly as an anxious attachment has been linked to sexting (Weisskirch and Delevi (2011). Further areas may include an individual's problem solving style and levels of impulsivity. As many individuals in relationships use sexting as a method of maintaining their relationship, it is fair to say that a portion of those may further images on. Brenick et al., (2017) and Drouin et al., (2013) found relationship characteristics, specifically those not in a committed relationship to be associated with sexting. However, given that the forwarding of sexual images may still occur within romantic relationships, it is reasonable to suggest that motivations for forwarding images also be looked into. This may also warrant further research due to the paucity of research into revenge porn, where the motivation to forward sexual images in this circumstance is to cause distress to the individual in the image. The malicious intent in such cases, supports the need for research into personality characteristics that may be associated with intimate partner violence due to the relational nature of forwarding images. This may include characterological factors such as jealousy and self-control within individuals, hostility, and level of antisocial personality traits which have been found to be related to intimate partner violence (i.e. Rakovec-Felser, 2014).

In addition, the situational characteristics that may act as a trigger for engaging in the forwarding of sexual images also warrants further exploration. This may include researching whether certain situations may make it more likely for an individual to forward sexual images than other situations.

It is therefore suggested that future research explore this area with a view to understanding some of the potential risk factors of individuals involved in the sharing of sexual images.

## CHAPTER 3

## A study investigating the prevalence and characteristics of perpetrators and victims of non-consensual image sharing.


### Abstract

*The aim of this study was to establish the prevalence of revenge porn in individuals aged over 16. In addition to this, problem solving skills, impulsivity and self-esteem was explored in perpetrators of non-consensual image sharing. Coping and levels of shame were explored in individuals that identified as having been either threatened with, or victimised by an act of revenge porn. In total, 388 participants took part in this online study and 4.9% (n=19) indicated that they had shared an intimate photo/video of a current partner without their permission (revenge porn). Overall, 7.2% (n=28) indicated that they had been threatened with revenge porn, and 5.4% (n=21) indicated that they had experienced having a private sexual image shared of them. Using the Social Problem Scale Inventory Revised (D'Zurilla, Nezu & Maydeu-Olivares, 2002), perpetrators of revenge porn were found to have significant higher scores on the impulsivity/carelessness and positive problem orientation subscales than individuals that had not engaged in revenge porn. The Barratt Impulsiveness Scale-11 (Patton, Stanford, & Barratt, 1995) also indicated that perpetrators had significantly higher levels of impulsivity. Levels of shame and coping strategies were similar in participants that had been threatened and victimised by an act of revenge porn. No differences were found in levels of self-esteem. These findings add to the understanding of revenge porn and provide some insight into characteristics of the perpetrators and victims. Implications of this research are discussed in relation to the findings.*

## Introduction

Revenge Pornography is defined by UK Parliament as the distribution of "*private sexual photograph or film...without the consent of an individual who appears in the photograph or film, and with the intention of causing that individual distress*" (2015; 34-35). As of 2015 this act is deemed a crime in the UK and now carries a sentence of up to two years in prison (UK Parliament, 2015). An example case of revenge pornography, colloquially referred to as 'revenge porn', would be a person sharing private photos of a sexual nature via the internet, with the intent of causing the individual appearing in the photo/video distress and or humiliation. The person may have been a past partner of the victim, although this may not always be the case. It is important to note that revenge pornography does not have to occur in the context of internet/online based sharing, and the law stipulates that more traditional ways of sharing pictures (i.e. text messaging/printing) is also included.

Since being legislated for, a number of allegations have been successfully prosecuted, with perpetrator's receiving a range of sentences for commission of this crime. This includes the first woman to be convicted for revenge porn, Paige Mitchell, who received a 6-week sentence, suspended for 18 months after pleading guilty to disclosing private sexual photographs of her ex-partner via social media (CPS, 2015), and Simon Humphrey, who was given a four-month prison sentence, suspended for 18 months, and a restraining order (CPS, 2015).

In relation to the publics understand of revenge porn, Bothamley and Tully (2017) found that the public mostly recognise that this act constitutes a crime. However, as this crime is in its infancy, information about its prevalence is scarce, and difficulty in assessing its prevalence is inevitable. This is because prevalence estimation depends on victims reporting the crime to the authorities or it depends on victim surveys, and even with these, the reporting may also be an issue for many reasons, including embarrassment to victims. As such, the prevalence of revenge porn remains largely unknown, and in studies where it is reported, the population may be unrepresentative of a wider population. For example, McCue (2016) sampled a population of university students and found that out of 167 participants, nobody identified as a perpetrator of revenge porn,

therefore it was difficult to establish any conclusions. Other research into the prevalence of revenge porn was carried out by the Cyber Civil Rights Initiative (2013). It was found that 23% of 1606 participants identified as victims of revenge porn, with 90% of victims being female. It is important to note that these figures may be over-representative of the general population because individuals whom feel that intimate photos are safe in the hands of partners may be more likely to send photos, which may ultimately increase the chance of them becoming a victim of revenge porn. As revenge pornography has been recently legislated for, and the prosecution of this new crime has received much media attention, it is inevitable that the public will have an increasing awareness of this crime. Now that the public are more aware of this specific crime, it is important to gather data on this in order to establish its prevalence, and increase awareness so that the true extent of its nature can be identified, and interventions to help perpetrators and victims can be developed.

**Motivators of revenge pornography**

It has been suggested that revenge pornography can be viewed as an extension of domestic violence, with both current and former intimate partners suffering threats of image distribution as a means to keep control and harass them (Henry & Powell, 2015). With regards to the perpetrators of such crime, there is little research into the characteristics of those who have committed this act with regard to motivation and personality profiles. This is in contrast with other areas of offending which have been studied in depth, such as the development of criminality, (i.e. Farrington, 2001), and personality and violence (i.e. McMurran, Blair & Egan 2002).

In terms of the treatment of offenders there are specific principles that clinicians need to have considered. It is important that clinicians assess the risk, and associated treatment needs of individuals, which are encapsulated in the "Risk, Need and Responsivity Principle" by Andrews and Bonta (1994). An assessment of 'risk' will determine which participants take part in an intervention, and incorporate their risk of re-offending (low/medium/high). The assessment of 'need' determines the content of the intervention, and the

assessment of 'responsivity' will ensure that the intervention is matched to the participant in terms of abilities and learning styles (McGuire, 2002).

In order to treat offenders on this basis it is important to know some of the reasons and motivations for engaging in certain behaviours in the first instance. For example, there is evidence to support the notion that poor problem solving skills increase the likelihood of re-offending, and that interventions aimed at targeting problem solving skills is "*associated with substantial reductions in recidivism*" (McGuire, 2002, p. 22). The lack of understanding of motivations for revenge pornography perpetration warrant research, as it may have implications for the rehabilitation of these offenders. For example, one of the key motivations and precursors for domestic violence is jealousy within the relationships (Puente & Cohen, 2003) and so the psychological treatment of this type of violence involves targeting this problem specifically. McMurran and Gilchrist (2008) note that when there is a problem in any given relationship, one of the ways to alleviate the situation, and repair it is through interpersonal problem solving, where dysfunctional problem solving is a risk factor for dating violence and distress (Lewis & Fremouw, 2001). As revenge porn has been linked to domestic and interpersonal violence in aspects such as control and harassment it is of importance to look at whether such a pattern of poor social problem solving is a risk factor for revenge porn. Certainly research has indicated that offenders may be less capable at successful problem solving that non offender counterparts (for example, Platt, Spivack, Altman, Altman, and Peizer, 1974). Furthermore, improving problem solving skills have implications for behavioural changes (Guerra & Slaby, 1990). Therefore, attempting to understand the problem solving abilities in individuals who commit revenge porn doing it may inform interventions for perpetrators and ensure that they receive the relevant intervention.

A further concept that has been researched in terms of its links to domestic violence is impulsivity. Cohen, Brumm, Zawacki, Paul, Sweet and Rosenbaum (2003) conducted a study and found that higher levels of impulsivity may be a factor associated with domestic violence, although not the sole determinant, which is a contrast to other researcher's findings regarding the element of control in domestically violent relationships. Furthermore, as revenge

pornography can be carried out on a digital forum (i.e. internet) it is important to note that higher levels of impulsivity have been linked to offenders who commit crimes via the internet (Elliott, Beech, & Mandeville-Norden, 2008). Pina, Holland, and James (2017) researched personality characteristics of individuals who have committed revenge porn. They found the endorsement of psychopathy including traits such as impulsivity predicted revenge porn proclivity. Their research implies that there may be personality types that increase the likelihood of engaging in this crime. As revenge porn can be linked to similar functions as domestic violence, for example, elements of control and harassment, (Henry & Powell, 2015) it is important to consider if similar dysfunctional interpersonal problem solving and impulsivity underlies revenge porn by examining whether problem solving and impulsiveness differs between those who have and have not engaged in it.

When looking specifically at typologies of domestic violent offenders it is important to consider how they may relate to revenge pornography. Holtzworth-Munroe and Stuart (1994) identified three subtypes of domestic violent offenders; the family only offender, the borderline/dysphoric offender, and the generally violent/antisocial offender. The family only offender would engage in low levels of violence within the family only. The borderline/dysphoric offender was described as having a dependency on their partner, and they would be emotionally volatile and experience high levels of jealousy. This typology of offender was described as being insecure within relationships and may become volatile if they perceived a sense of threat or abandonment by their partner. Finally, the generally violent/antisocial individual who committed domestic violence was described as being fundamentally antisocial whereby violence within their relationship was one of multiple facets of their behaviour. Their violence would extend outside of the family and they may have criminal peers, and be involved in misusing substances. They would have antisocial personality characteristics, and moderate levels of anger. A fourth typology of a domestic violent offender was identified by Johnson, Gilchrist, Beech, Weston, Takriti, and Freeman (2006) which resembled previous findings. This narcissistic type of offender presents in a socially desirable manner and uses others to meet their needs. They believe they are entitled to be treated well by others and is

suggested that these narcissistic typology of domestically violent offenders may present as very self-involved.

In relating these typologies to the crime of revenge porn it is possible that the potential control and harassment mentioned within revenge porn and mentioned above may be related to the narcissistic and borderline/dysphoric typology of domestically violent offender. As discussed, impression management is important for the narcissistic offender and this suggests that they want to present in such a way that is socially desirable to others. A level of self-control is required to do this and within relationships this may extend to controlling a partner through any means necessary to manage impressions. The threat of, or the sharing of a sexual image may be one method of exercising control.

Jealousy is a characteristic of the borderline/dysphoric typology of offender, and the threat of abandonment is a motivator in their violence towards their partner. In the case of revenge porn, sharing a sexual image of their partner to others, or the threat of doing so may be a controlled way which may be carefully planned in which to avoid feelings of rejection or abandonment. Furthermore, with this typology it could be that there is an increased desire to inflict harm to others when the perpetrator senses threat (i.e. rejection, embarrassment, abandonment). The sharing of sexual images on platforms such as social media is a method to achieve maximum psychological harm including humiliation and distress to the victim.

It is important to relate the findings that impulsivity traits have been found to be related to revenge pornography (Pina et al., 2017) to the domestic violence offender typologies. Higher levels of impulsivity may be more indicative of the generally violent/antisocial offender. As mentioned, their violence and antisocial behaviour is a feature throughout many facets of their lives which may be indicative of higher levels of impulsivity and acting without a consideration of the consequences.

Finally, in discussing and relating the typologies of offenders to the crime of revenge porn, it has become apparent that there may be some individuals who share images of others who are more impulsive and rush into acts without

thinking. In addition, offenders with egocentric or narcissistic personality traits may not appreciate the level of stress they are causing their victim as they find it difficult to understand another personas perspective. There may also be another set of individuals who may be more considered in their approach, and are deliberately causing distress in their victims. Therefore, there may be more than one type of individual who engages in revenge porn.

A further concept which has been extensively researched in this field is the level of self-esteem in offender samples. Self-esteem is a term used to define your beliefs about your own personal self-worth (Robinson, Shaver & Wrightsman, 2013). Offenders have been found to have difficulties with problem solving (as mentioned above), as well as other skill deficits. These skills deficits could serve to undermine their self-confidence (Marshall, Anderson & Fernandez, 1999) which would have a negative impact on self-esteem. Moreover, researchers have also suggested that individuals with low self-esteem are more likely to become romantically involved with partners who also have low self-esteem (Byrne, 1971), and this relationship may foster feelings of jealousy, which as Puente and Cohen (2003) have highlighted, is a primary motivation for domestic violence. Furthermore, Garafalo (2015) found that in a comparison sample of offenders and non-offenders, that the non-offenders had significantly higher levels of self-esteem than offenders, suggesting that generally offenders have a lower concept of self-worth than other populations. As the act of revenge porn is an offence, and has been linked to specific types of offenders, the level of self-esteem in those who have committed revenge pornography therefore warrants further exploration. This exploration would also help towards the decision making in the perpetrators of revenge porn's rehabilitation. Furthermore, as highlighted, self-esteem is an important factor in offending, and domestic violence (Byrne, 1971). As revenge pornography can occur in the context of a relationship, it is important to explore the role of self-esteem in the offending and victimisation of this act. This can also help to inform the interventions that may help the victims after their experience.

**Revenge pornography: victim impact**

The crime of revenge pornography has been described as akin to "*cyber rape*" (Mathen, 2014, p.542), and its effects on victims have been noted on websites aimed at supporting victims of revenge pornography, for example www.endrevengeporn.org, and www.revengepornhelpine.org.uk. Victim effect's that have been noted as a result of revenge pornography crimes are not confined to one domain, with emotional, employment, and educational opportunities thwarted as a result of victimisation (Franks, 2015). Franks further argues that revenge pornography victims experience a level of shame having been victimised; similar findings have been found in cases of sexual assault, where victims feel experience shame having been victimised, even believing they are to blame (i.e. Weiss, 2010). This in itself is a strong argument that victim impact of this relatively new crime warrants careful exploration, yet to date there is a paucity of literature exploring coping strategies of those who are victimised in this manner. More recently, Bates (2017) conducted interviews with 18 female survivors of revenge porn, and reported on the mental health effects that they had suffered following victimisation. This included post-traumatic stress symptomology, decreased levels of self-esteem, in addition to significant anxiety and depression as a consequence. Bates (2017) goes on to explore the negative coping mechanisms utilised by victims in the aftermath of their victimisation, which included alcohol misuse, avoidance and denial. Individuals have highlighted that being a victim of revenge porn has impacted on their relationships with family and friends, impeded romantic relationships, have indicated that they have been subject to harassment and stalking both online and offline as a consequence of their victimisation, and it has had marked effects on their social and occupational and education functioning (Cyber Civil Rights Initiative, 2013). These findings suggest that being a victim of revenge porn may have significant and potentially far reaching effects across multiple life domains that could impede on the individual's ability to function effectively, certainly in the immediate aftermath of victimisation.

As mentioned above, it has been suggested that revenge porn can be viewed as an extension of domestic violence/intimate partner violence, with the element of control and power a prominent feature in domestic violence literature

(i.e. Duxbury, 2014). There are many types of abuse related to domestic violent relations including emotional, and sexual. Revenge porn has been found to bear similarities to sexual victimisation (i.e., Bates, 2017) with victims' experiences and emotional effects documented on websites mentioned above (i.e. endrevengeporn.org). Given these links it is reasonable to suggest that revenge porn may share elements and characteristics of domestic violence. When the general literature into domestic violence perpetration is considered, the use of avoidant coping strategies has been linked with the experiencing of trauma-related guilt by these victims (Street, Gibson, & Holohan, 2005). Further, survivors of domestic violence who use problem focused coping strategies are more likely to seek support from formal organisation's (Zakar, Zakar & Kramer, 2012), thus suggesting that choice of coping strategy can aid recovery and importantly the finding that problem focused coping can link victims to professional support lends to the conclusion that coping style of revenge pornography victims is worthy of examination. It appears that the public do have some awareness of the distress that being a victim of revenge porn can include, with fear and psychological harm being considered to be likely consequences of victimisation (Bothamley & Tully, 2017), however research into the direct consequences of victimisation and how victims cope is lacking. Through such research, recommendations could be made about how to help victims of revenge porn and how to help increase the likelihood of them contacting organisations for support. Currently however, the victims exact needs and responses are unknown.

**Aims and objectives**

The aim of this research is to identify the prevalence of revenge pornography, and examine the characteristics of those who engage in this act and its effect on victims. Specifically, the following questions will be addressed:

- What is the prevalence of revenge pornography?
- Is there a difference in levels of impulsivity associated with those individuals who have shared a sexual image of another individual in comparison to those who have not done so?

- Do perpetrators have different problem solving abilities compared to those who have not shared a sexual photo of another individual?
- Do individuals that have been threatened with revenge porn and individuals that have had an image shared experience different levels of shame and coping?
- Are there significant differences in self-esteem between those who have shared a sexual image of another individual and those that have not?

## Methodology

### Study design

A cross sectional independent groups design was employed. An online questionnaire was designed using Bristol Online Survey platform. The first part of the study requested participants to indicate whether or not they have committed or been victimised by revenge pornography. Participants were then directed via skip logic to answer further questions about attitudes around the sharing of intimate photographs and personality traits. Based on time constraints and in an attempt to yield as many participants as possible, sampling was opportunistic.

### Participants

In total, 388 individuals aged over 16 took part in the study. Males accounted for 40.2% (n= 156) of the sample, and females accounted for 59.8% of the sample (n= 232). The mean age of participants was 26.68 (SD= 10.16)

Members of the public who have reached the age of consent for sex in the U.K were invited to participate.
Participants were recruited between July 2016 and July 2017. A link to the questionnaire was placed on social media (Facebook, Reddit and Twitter) to gather participants, in addition to an advert being placed on the 'Call for Participants' platform. This is designed for UK Universities to recruit for the study. In addition to this, 15 posters were placed around the University of

Nottingham (Appendix I). A further 15 colleges or sixth form centers were contacted via email, and followed up by post to gain participants (Appendix J).

**Materials**

The following psychometric tools were utilized within this research:

**Rosenburg Self Esteem Scale, (Rosenburg, 1965).** (Appendix K)

The Rosenburg Self Esteem Inventory. This is a 10 item scale that measures participant self-esteem (Rosenburg, 1965). The internal consistency of this scale is reported as alpha=0.77, representing good reliability (Stanford, Mathias, Dougherty, Lake, Anderson & Patton, 2009). Within this current analysis the Rosenburg Self-esteem Inventory was found to be reliable ($\alpha$= .92)

**Barratt Impulsiveness Scale (Patton, Stanford, & Barratt, 1995).** (Appendix L)

The Barratt Impulsiveness Scale-11 (Patton, Stanford & Barratt, 1995). This is a 30 item scale that measures how individuals typically respond to problems. The internal consistencies of the Barratt Impulsiveness Scale 11 range from alpha=0.71-0.83, suggesting that this scale has a good reliability. The impulsiveness scale was found to be reliable within this study ($\alpha$= .83).

**The Social Problem Solving Inventory-Revised (SPSI-R: Long Version, D'Zurilla, Nezu & Maydeu-Olivares, 2002).** (Appendix M).

The Social Problem Solving Inventory – Revised: Long Version (SPSI-R: L), designed by D'Zurilla, Nezu and Maydeu-Olivares (2002) is a 52 item questionnaire used to measure constructs of problem solving. It is made up of 5 subscales, 2 of which measure adaptive problem solving and 3 which measures dysfunctional problem solving approaches and yields a total problem solving score. The internal consistency of this psychometric is reported to be between 0.60 and 0.95 for each of the 5 sub-scales. Test-retest reliability is between 0.68 and 0.91 for each of the 5 sub-scales. Within this research study the Cronbach's alpha scores for the five scales were between 0.74 and 0.94 demonstrating good internal consistency.

**The Trauma Related Shame Inventory (Oktedalen, Hagtvet, Hoffart, Langkaas, Smucker, 2014).** (Appendix N).

This is a 24-item questionnaire which measures internalised and externalised shame in relation to an event. The internal consistency of the 2 sub scales are alpha=0.87 and alpha=0.87 respectively, representing a high level of reliability (Oktedalen et al., 2014). The Trauma Related Shame Inventory was found to be reliable within this study ($\alpha$= .95).

**The Brief Cope Scale (COPE-B, Carver, 1997).** (Appendix O).

This is a 28 item self-report scale on how an individual manages with problems, broken down into 14 sub-scales. The internal consistency of the COPE-B scale sub-scales range from alpha=0.54 to alpha=0.90, representing an acceptable to good level of reliability (Carver, 1997). Cronbach's Alpha scores for the Cope-B scale ranged from .63 to .96 in this study indicating acceptable levels of reliability.

**Procedure**

Participants were invited to take part via an online link (appendix P) or a displayed poster (Appendix I). The participants were presented with a participant information sheet (Appendix Q) and subsequently a consent form (Appendix R).

Participants were asked a series of demographic questions. Participants were then asked a series of questions asking them about their engagement in the sharing of photographs, and will indicate whether this has happened to them or whether they have engaged in this. Participants that indicated they either had committed revenge porn or had not committed it were presented with the Social Problem solving Inventory Revised (D'Zurilla, Nezu, Maydeu-Olivares, 2002), The Barratt Impulsiveness Scale-11 (Patton, Stanford & Barratt, 1995), and The Rosenburg Self Esteem Inventory (Rosenburg, 1965). Participants that indicate they have been victimised by revenge porn will be presented with The Trauma Related Shame Inventory (Oktedalen, Hagtvet, Hoffart, Langkaas, Smucker, 2014), The Brief Cope Scale (COPE-B, Carver, 1997), and the Rosenburg Self Esteem Inventory (1965).

A debriefing sheet was presented after completion of the questionnaire, (Appendix S).

**Data Storage**

Data was stored electronically on a personal computer and university drive accessible only by the researcher and supervisor. The computer that the data was stored on was password protected to help ensure the data remained secure and confidential.

**Ethical considerations**

Participant responses and participation will be anonymous and the researcher will not be able to identify participants.

Due to the sensitive nature of the questionnaire, only those aged 16 or over were invited to participant, and this was explicitly stated on the information sheet and the consent form. The reason was because they are considered legally able to consent without needing additional parental consent to participate.

As well as the above, it was possible that the questions asked could have potentially caused distress in participants. In order to attempt to minimise this and account for this, the contact details of the researcher were made available at the beginning and end of the study to allow participants to contact the researchers should they feel the need to or have had any further questions or complaints. Participants were also informed via the information sheet that they have the right to exit the questionnaire at any time should they wish to. Details of where further information could be sought regarding the topic were provided.

## Results

All data was analysed using the Statistical Package for the Social Sciences (SPSS version 23).

Descriptive data for the overall sample was explored and is provided in Table 8.

Table 8: Descriptive statistics for total sample (*n*=388)

| **Variable** | *Overall Sample*<br><br>*(n=388)* | *Perpetrator of image sharing without consent*<br><br>*(n=19)* | *Threatened and/or Victimised about their own image*<br>*(n=49)* | *No Victimisation; no image sharing*<br>*(n=328)* |
|---|---|---|---|---|
| *Gender*<br>- Male | 40.2% (n=156) | 52.6% (n=10) | 28.6%<br>(n=14) | 41.5% (n=136) |
| - Female | 59.8% (n=232) | 47.4% (n=9) | 71.4% (n=35) | 58.5% (n=192) |
| *Age* | M= 26.7 (SD=10.15) | M= 27.32 (SD=8.64) | M=26.7 (SD=8.75) | M=26.73 (SD=10.48) |
| - 16-25 | 57.5% (n=223) | 47.4% (n=9) | 57.1% (n=28) | 58.2% (n=191) |
| - Over 25 | 42.5% (n=165) | 52.6% (n=10) | 42.9% (n=21) | 41.8% (n=137) |
| *Ethnicity*<br>- White British | 64.4% (n=250) | 57.9% (n=11) | 71.4% (n=35) | 64% (n=210) |
| - Black British | 4% (n=1) | 10.5% (n=2) | 2% (n=1) | 0.6% (n=2) |
| - Other | 14.2% (n=55) | 5.3% (n=1) | 10.2% (n=5) | 14.9% (n=49) |
| - Did not specify | 20.4% (n=79) | 36.3% (n=5) | 16.3% (n=8) | 20.4% (n=67) |
| *Occupation*<br>- Student | 51% (n=198) | 57.9% (n=11) | 55.1% (n=27) | 50.3% (n=165) |
| - Other | 35.1% (n=136) | 21.1% (n=4) | 30.6% (n=15) | 14.9% (n=49) |

| | | | | |
|---|---|---|---|---|
| - Did not specify | 13.9% (n=54) | 21.1% (n=4) | 14.3% (n=7) | 20.4% (n=67) |

**Threatened and/or Victimised about their own image**

Of the total sample, 12.6% (n=49) of the participants indicated a level of victimisation; 7.2% (*n*=28) of participants had been threatened within revenge porn and 5.4% (*n*=21) of participants had a private sexual image of them shared with others without their consent. Of the 21 victims who had a private sexual image shared of them, almost half (47.6%; *n*=10) indicated that some form of contact details were present alongside the shared picture (contact details may include name, email address, phone number). No contact details were present in 52.4% (*n*=11) of the cases in which participants had indicated they had been victimised by an act of revenge porn.

The mean age of participants that had been threatened or victimised was 26.7 years (SD= 8.75). Females accounted for 71.4%, and males accounted for 28.6%.

Descriptive statistics for participants that indicated they had been victimised or threatened with revenge porn can be viewed in Table 9.

Table 9: Age and gender of those people (having reached the age of consent to sex) who were *threatened and/or victimised about their own image (n=49)*

| Group | Gender (*n*) | Mean Age (*m*) |
|---|---|---|
| Threatened to share image (but image not shared) | Male= 9 (32.1%)<br>Female= 19 (67.9%)<br>Total *n*= 28 | *m*= 25.86 (SD 6.74) |
| Victim (i.e.: image shared without consent) | Male= 5 (23.8%)<br>Female= 16 (76.2%)<br>Total *n*= 21 | *m*= 27.76 (SD 10.97) |
| Total | Male= 14 (28.6%)<br>Female= 35 (71.4%)<br>*n*= 49 | *m*= 26.7 (SD= 8.75) |

Chi Square tests of independence were calculated comparing the level of victimisation in gender and age. Age was concatenated into categorical data; 16-

25, and 26 and over to increase the expected frequency within each cell. Adolescence is the period between childhood and adulthood and researchers have indicated this extends well into the twenties (Sawyer, Azzopardi, Wickremarathne, & Patton, 2018). Furthermore, the theory of emerging adulthood was proposed by Arnett (2000) which indicated a transitionary period. This transition between adolescence and young adulthood falls between ages 20 and 25 in individuals. Therefore, the data was dichotomised to reflect this. Results indicated that there was no difference between gender and level of victimisation, $X^2$ (1) =.408, $p$>.05, and no significant difference between age and level of victimisation, $X^2$ (1) =.340, $p$>.05.

A Shapiro Wilk's tests indicated that data violated the assumption of normality of distribution ($p$=<.05) and therefore non-parametric tests were used to analyse the data.

Mann-Whitney U tests were utilised to identify any differences between level of victimisation and coping, and level of victimisation and shame.

A Mann-Whitney U test revealed no significant difference in self-esteem levels in individuals that have been threatened with revenge porn (*Mdn*= 14.00, *n*= 28) and individuals that have had an image shared (*Mdn*= 14.00, *n*= 21), *U*= 274.50, *z*= -.395, *p*= .693. No significant differences were found in levels of shame in individuals that have been threatened with revenge porn (*Mdn*= 35, *n*= 28) and individuals that have had an image shared (*Mdn*= 42, *n*= 21), *U*= 254.50, z= -.799, *p*=.424. No significant differences were found between coping strategies utilised for individual's that have been threatened or have had an image shared (*p*=>.05). See Table 10 for results from Mann Whitney U tests.

**Gender Effects.**

No significant differences were found in levels of self-esteem in males (*Mdn*= 13.50, n=14) and females (*Mdn*= 14.00, n= 35) who indicated a level of victimisation *U*=232.00, *z*= .289, *p*=.773.

No significant differences were found in levels of shame in males (*Mdn*= 37.5, n= 14) and females (*Mdn*= 42, n= 35) who indicated a level of victimisation *U*=206.00, *z*=-.864, *p*=.388.

No significant differences were found between genders and coping strategies utilised in those who had indicated a level of victimisation (*p*=>.05). However, females who had reported that an image had been shared of them (*Mdn*=2.00, *n*=16) reported significantly lower levels of denial as a coping strategy than females (*Mdn*=4.00, *n*=19) who had been threatened with the sharing of an intimate image *U*=85.50, z=-2.303, *p*=.021, r=-.39.

**Threatened.**

No gender differences were found in levels of shame in males (*Mdn*=14, *n*=9) and females (*Mdn*=15, *n*=19) who indicated that they had been threatened by someone to share a sexual image U= 82.50, z=-.148, p=.882.

No gender differences were found in levels of shame in males (*Mdn*= 35, *n*=9) and females (*Mdn*= 35, *n*=19) who indicated that they had been threatened with the sharing of an intimate sexual image *U*= 77.00, *z*= -.419, *p*= .675.

No significant differences were found between gender and coping strategies utilised in those who had indicated that been threatened with the sharing of an intimate image (*p*=>.05).

**Revenge Porn carried out.**

No gender differences were found in levels of self-esteem in males (*Mdn*= 11 *n*=5) and females (*Mdn*= 14, *n*=16) who indicated that a sexual image had been shared of them *U*= 38.50, *z*= -.124, *p*=.901.

No gender differences were found in levels of shame in males (Mdn= 40, n=5) and females (Mdn= 45, n=16) who indicated that a sexual image had been shared of them *U*= 31.00, *z*= -.745, *p*=.456.

No significant differences were found between gender and coping strategies utilised in those who had indicated that an image had been shared of them ($p$=>.05).

**Age Differences.**

No significant differences were found in relation to age and self-esteem or coping strategies utilised (p>.05). When considering age, victims that fell between ages of 16-25years (*Mdn*=61.00, $n$=13) that have had an intimate image shared of them reported significantly higher levels of shame than victims aged 26 and over (*Mdn*=31, $n$=8), $u$= 23.00, $z$= -2.11, $p$= .04, $r$=-.46.

**Contact Details.**

Of those 21 where an act of revenge porn had been carried out, 47.6% ($n$=10) indicated that some form of contact details were present alongside the photo. No contact details were present in 52.4% ($n$=11) of the cases in which participants had indicated they had been victimised by an act of revenge porn. Table 11 indicates the gender and mean age in relation to contact details.

Table 11: Number of participants who had been victimised (i.e.: had their intimate image shared without their consent) together with or without their contact details (N = 21).

| | Image with Contact Details Present ($n$=10) | Image with Contact details absent ($n$=11) |
|---|---|---|
| Gender | | |
| - Male | 10% (n=1) | 36.4% (n=4) |
| - Female | 90% (n=9) | 63.6% (n=7) |
| Mean age | 25.9 (SD=12.02) | 29.45 (SD=10.19) |

Mann Witney U tests compared any differences between victims who had indicated that their details had been left alongside the image ($n$=10), and those

who had indicated that personal details were not present (*n*=11). Levels of coping by acceptance in victims whose contact details were present (*Mdn*= 8 *n*=10) were significantly higher than those whose contact details were not present alongside the image (*Mdn*= 5, n=11), *U*= 26.50, *z*= -2.08, *p*=0.038, *r*=0.45. This represents a medium effect size.

Table 10: Characteristics (self-esteem, shame and coping) of individuals who had been *threatened and/or victimised with image shared (N=49)*

| Dependent Variable | Number (*n*) | | Median (*Mdn*) | | Mann Whitney U score | Z Score | Sig (*p* Value) |
|---|---|---|---|---|---|---|---|
| | Threatened | Victimised | Threatened | Victimised | | | |
| Self Esteem | 28 | 21 | 14.00 | 14.00 | 274.500 | -.40 | .699 |
| Internal Shame | 28 | 21 | 18.00 | 20.00 | 263.00 | -.63 | .536 |
| External Shame | 28 | 21 | 20.00 | 23.00 | 250.50 | -.88 | .384 |
| Coping: Self-Distraction | 28 | 21 | 5.00 | 5.00 | 277.00 | -.35 | .731 |
| Active Coping | 28 | 21 | 4.00 | 4.00 | 288.00 | -.12 | .906 |
| Denial | 28 | 21 | 4.00 | 2.00 | 242.00 | -1.11 | .270 |
| Emotional Support | 28 | 21 | 4.00 | 4.00 | 249.00 | -.94 | .354 |
| Venting | 28 | 21 | 4.00 | 5.00 | 211.00 | -1.71 | .088 |
| Positive Reframing | 28 | 21 | 4.00 | 3.00 | 260.00 | -.71 | .487 |
| Planning | 28 | 21 | 4.50 | 4.00 | 235.00 | -1.21 | .231 |
| Acceptance | 28 | 21 | 5.50 | 6.00 | 256.50 | -.77 | .446 |
| Self-Blame | 28 | 21 | 4.50 | 6.00 | 280.50 | -.28 | .790 |

*Indicates statistical significance

**Perpetrators of Revenge Porn**

Overall, 4.9% (n= 19) of the total sample indicated that they had shared a photo of a current or former partner without the person in the photos consent. The reasons for doing this included to humiliate the individual (26.3%), anger (21.1%), to cause individual distress (21.1%), to get revenge (15.8%), to embarrass the individual (10.5%) and jealousy (5.3%).

Prior to analyses, case control matching was completed to control for age and gender. Case control matching controls for confounding variables (Rose & Van Der Laan, 2009) and to account for the large group size difference between cases and controls (Cases N=19, Controls N=328). Due to the small number of cases, the ratio of cases to controls was raised (1:3), which could improve the likelihood of identifying any between groups differences (Grimes & Schulz, 2005), as well to obtain power. Between groups gender and age was equal indicating a well matched sample. Descriptive statistics can be viewed in Table 12.

Table 12: Age and gender of perpetrators of revenge porn (N= 19) matched to a control sample of non-perpetrators (N= 57)

| Group | Gender (*n*) | Mean Age (*m*) |
|---|---|---|
| Cases | Total = 19 (100%)<br>Male= 10 (52.6%)<br>Female= 9 (47.4%) | *m*= 27.32 (SD=8.64) |
| Controls | Total = 57 (100%)<br>Male= 30 (52.6%)<br>Female= 27 (47.4%) | *m*= 27.18 (SD=8.07) |

A Shapiro Wilk's tests indicated a violation of normal distribution ($p$=<.05) and therefore non parametric tests were utilised to analyse data.

Mann Whitney U tests indicated that significant differences were found between cases and controls for levels of impulsivity on two scales and positive problem orientation. Details of results can be viewed in Table 13. Individuals that had shared an intimate photo/video of a former or current partner (*Mdn*=

14.00, *n*= 19) had significantly higher scores for positive problem orientation than individuals that had not (*Mdn*= 9.00, *n*= 57), *U*= 277.50, *z*=-3.18, *p*=.001, *r*= 0.36 (medium effect size).

On the Impulsivity/carelessness subscale of the social problem solving scale, individuals that had shared a photo of a current or former partner (*Md*= 15.00, *n*= 19) were significantly more impulsive than individuals that had not, (*Mdn*= 7.00, *n*= 57), *U*= 338.00, *z*=-2.45, *p*=.014, *r*= 0.28.

Using the Barratt Impulsiveness Scale, individuals that had shared a photo of a current or former partner (*Mdn*= 69.00, *n*= 19) were found to be significantly more impulsive than individuals that had not engaged in this (*Mdn*= 62.00, *n*= 57), *U*= 338.00, *z*=-2.44, *p*=.015, *r*= 0.28.

**Gender Effects.**

Upon further analysis, no between gender differences were found. Therefore, there were no differences between males and females who had shared a photo of a current or former partner.

**Age Differences.**

A Mann-Whitney U test revealed that scores for impulsivity of 16-25 year olds who had shared an image of their current or former partner (*Mdn*=81, *n*=9) were significantly higher than impulsivity scores 16-25 year olds that had not (*Mdn*=62, *n*=27), *U*=50.50, *z*=-2.60, *p*=.009, *r*=-.43. Levels of impulsivity and carelessness (the SPSI-R subscale) in 16-25 year olds who had shared an image of their current or former partner (*Mdn*=23, *n*=9) were also found to be significantly higher than impulsivity scores reported in and 16-25 year olds that had not (*Mdn*=7, *n*=27), *U*=41.50, *z*=-2.93, *p*=.003, *r*=-.49.

Individuals aged 16-25 who had shared an image of their current or former partner (*Mdn*=15, *n*=9) were found to have significantly higher positive Problem

Orientation than 16-25 year olds that had not (*Mdn*=8, *n*=27), *U*=40.50, *z*=-2.97, *p*=.003, *r*=-.50).

Table 13:
Characteristics (impulsivity and problem solving) of individual who had perpetrated acts of revenge porn (cases n=19) compared to those who had not (controls n=57)

| Dependent Variable | Median (*Mdn*) | | Mann Whitney U score | Z Score | Sig (*p* Value) |
|---|---|---|---|---|---|
| | Cases | Controls | | | |
| Impulsivity | 69.00 | 62.00 | 338.00 | -2.44 | .015* |
| Self Esteem | 14.00 | 11.00 | 517.50 | -.29 | .773 |
| Problem Solving: Positive Problem Orientation | 14.00 | 9.00 | 277.50 | -3.18 | .001* |
| Problem Solving: Negative Problem Orientation | 12.00 | 15.00 | 406.00 | -1.63 | .104 |
| Problem Solving: Problem Definition | 10.00 | 12.00 | 483.50 | -.70 | .485 |
| Generate Alternative Solutions | 10.00 | 11.00 | 535.00 | -.08 | .938 |
| Decision Making | 9.00 | 11.00 | 443.00 | -1.89 | .235 |
| Solution Verification/Implementation | 9.00 | 10.00 | 524.00 | -.21 | .833 |
| Rational Problem solving Total | 40.00 | 44.00 | 502.50 | -.47 | .640 |
| Problem solving: Avoidance | 10.00 | 12.00 | 415.00 | -1.52 | .129 |
| Problem Solving: Impulsivity/Carelessness | 15.00 | 7.00 | 338.00 | -2.45 | .014* |

| | | | | | |
|---|---|---|---|---|---|
| Total Social Problem Solving | 11.76 | 12.15 | 501.00 | -.49 | .627 |

*Indicates statistical significance *p*=<.05

## Discussion

This study investigated the prevalence of revenge pornography. In individuals that had engaged in this act, levels of problem solving ability, impulsivity, and self-esteem were considered. Where individuals indicated that they had been victimised or threatened with victimisation, differences in coping and shame were explored.

### Overview of results

In total, 388 participants aged over the age of 16 (i.e.: the age of sexual consent in the UK) took part in this research. Of those, 4.9% of the sample indicated that they had shared a photo/video of a current or former partner. The reason most indicated for doing so was for purposes of humiliation. Individuals that had committed an act of revenge porn were found to have significantly higher levels of impulsivity on both the social Problem Solving Inventory Revised Scale (D'Zurilla et al., 2002), and the Barratt Impulsiveness Scale (Patton et al., 1995). Using the SPSI-R, individuals that engaged in revenge porn were found to score significantly higher on the 'Positive Problem Orientation' subscale. Younger perpetrators were found to have higher levels of impulsivity than older perpetrators. No significant differences were found between levels of self-esteem in individuals that have engaged in revenge porn and those who have not.

In relation to victims, 12.6% of participants indicated that they had either been threatened with the sharing of a sexual photograph of them, or that this had occurred. No significant differences were found in levels of self-esteem, coping or shame between those who had been threatened and participants that had been victimised by the sharing of a sexual image. Interestingly, gender differences revealed that females who had an image shared of them were found to have lower levels of denial as a coping strategy in comparison to females who had been threatened. Of the participants who had had an image shared of them, the younger participants reported higher levels of shame. Furthermore, levels of acceptance in

victims whose contact details were aware their contact details had been included when the image was shared were higher than acceptance levels of individuals whose contact details were not present alongside the shared image.

**Victimisation**

Overall, 12.6% of participants indicated a level of victimisation; 7.2% of the participants indicated that they had been threatened with an act of revenge porn, and 5.4% of participants indicated that someone that had shared an image of them without their consent. This figure is lower than the findings reported by the Cyber Civil Rights Initiative (2013) which reported a figure of 23%. Gender findings between these two studies are consistent; females accounted for the majority of individuals that had indicated a level of victimisation.

Of those that had been victimised, 47.6% (n=10) indicated that some form of contact details were present. This finding highlights the potential for re-victimisation that individuals can experience as a result of revenge porn.

No significant differences were found in levels of coping and shame between those who had been threatened or victimised. Both groups indicate that they use coping mechanisms including denial and self-blame, and experience similar levels of shame as a result of their victimisation. These findings support the research completed by Bates (2017) and indicate that victims of revenge porn experience significant negative effects on their mental health as a result of their victimisation. These findings also support the research by Weiss (2010) which suggests that some victims of crime, such as sexual assault, have a level of belief that they are to blame for their victimisation. This study also indicates that there are similar levels of shame and coping reported in victims and those who have been threatened. An explanation for this similarity could be that the threat of victimisation instills fear, and a perceived risk in potential victims and it is this that has similar effects to those who have been victimised. In cases where the victim has been threatened with the sharing of sexual images, the potential for victimisation is high, given that

the individual who is exhibiting the threat is likely to have the photo/video required. This is further emphasised by findings from a survey by McAfee (2013) that found of those threatened with revenge porn, 60% of the threats had been carried out, indicating that it is likely for the threats to become acts. It is important to note that the threat of an act of violence, in this case, revenge porn, may require potential victims to display anticipatory coping behaviour (Kelly, 2013). Individuals may be likely to continue to worry about the ongoing future possibility that an image may be shared and this could affect their coping and levels of shame. Within this study, individuals who were threatened with the sharing of a sexual image were found to have higher levels of denial than those who have had a sexual image of them shared and therefore this could be explained by anticipatory coping. In relation to the levels of victimisation in revenge porn these findings have some implications. It is likely that individuals who receive a threat of revenge porn will be negatively affected and experience a level of shame as a result of this threat. They are also likely to engage in a range of coping strategies. It is important to acknowledge the negative effects that the threat of victimisation has, as well as its effects of different life domains, as outlined by Cyber Civil Rights Initiative (2013) and Bates (2017) and offer those threatened and those victimised similar levels of ongoing help and support. It is of interest that the study found that younger victims who have had a sexual image shared of them reported higher levels of shame (in comparison to victims aged 26 and over). It may be that future research could be directed towards understanding this. However, it is possible that as individuals age they because less prone to experiencing psychologically maladaptive emotions (such as shame) in comparison to younger individuals (Orth, Robins, Soto, 2010). It may be that the younger individuals have a larger presence on social media platforms and therefore the likelihood of others becoming aware of the sexual image shared may be higher than it could be for others although this requires further research.

It is also important to note that victims that have approach focused coping strategies may be more likely to search for professional support (Zakar et al., 2012). In moving forward, it may be helpful to identify methods in which support

can be offered to individuals that engage in more avoidant coping strategies who may not seek forms of support from others or professional agencies.

**Perpetrators**

In terms of the prevalence, to date there have been few studies researching this factor. This current research found that 4.9% of individuals have shared a sexual image of another without their consent. It is possible however, that this is an under representation of real figures, as there are significantly higher levels of reported victimisation (i.e. Cyber Civil Rights Initiative, 2013). However, this figure provides some initial insight into the frequency of revenge porn within the population.

This study indicates that individuals who engage in revenge porn have higher levels of impulsivity than those who do not. This suggests that individuals who have engaged in revenge porn are more likely to engage in problem solving strategies that are careless and hurried, and with little consideration for the consequences. Furthermore, higher levels of impulsivity indicate that individuals are less likely to act effectively in situations where problem solving is required (D'Zurilla et al., 2002).

Pina et al., (2017) indicated that trait psychopathy is a predictor of revenge porn, where impulsivity is considered a sub-factor in psychopathy. This current study has found that levels of impulsiveness are significant factor in individuals that have shared a photo of a current or former partner. Therefore, the findings from this study support the findings from Pina et al.'s, (2017) research and indicate the levels of impulsivity in an individual is important predictor of engagement in revenge pornography. Furthermore, this study also supports previous findings from researchers that have considered the role of personality traits in cyber-bullying (Kokkinos, Antoniadou & Markos, 2014), and found that higher levels of impulsivity is predictive of engagement in such behaviours. It is important to note that this difference was also further highlighted within those aged between 16-25, or

emerging adults. Emerging adulthood is a transitionary stage between adolescence and adulthood and is a time of significant adjustment for an individual in terms of personality, decision making, and responsibility for oneself (Arnett, 2003).

Certainly impulsivity as a personality characteristic may have a role in the forwarding of sexual images without consent as demonstrated within these findings. Findings from other research also support this notion. Chambers and Potenza (2003) suggest that emerging adults are regarded as impulsive and that this may have implications for understanding their behaviours. Furthermore, the role of impulsivity/low self-control has also been linked to the production of sexual images and sexting (Kerstens & Stol, 2014) which further highlights this personality trait as a characteristic related by some degree to the production/sending and forwarding of sexual imagery. Levels of impulsivity, coupled with the apparent ease of accessing and uploading images to online platforms such as social media is an important consideration for future in terms of how the likelihood can be reduced.

Unexpectedly, individuals that have engaged in an act of revenge porn were found to score higher on the 'Positive problem Orientation' subscale of the SPSI-R than those who had not. Individuals with higher scores on this subscale may be more likely to see their problem as a 'challenge' and believe in their ability to solve a problem, and will actively attempt to solve their problems rather than avoid them (D'Zurilla et al., 2002). It could be that whilst individuals that have committed an act of revenge porn do have a higher positive problem solving orientation than those who have not, that their high levels of impulsivity and carelessness in approaching problems may inhibit their ability to act effectively when doing so, and interrupt their ability to apply appropriate problem solving skills. The findings indicate that impulsivity is a risk factor for the commission of sharing sexual images of third parties without their consent. Findings are also in line with previous research that indicates impulsivity is a risk factor for dating violence (Lewis & Fremouw, 2001).

It is possible that those individuals who score higher on the positive problem orientation scale see a problem as a 'challenge' whose offending is not driven by

impulsivity and instead the motivations of this group of perpetrators may be driven by a controlled desire to inflict harm. Those driven by impulsivity may link back to the generally violent/antisocial offender, whereas higher levels of positive problem solving falls in line with the narcissistic and borderline/dysphoric typology, who desire to inflict harm in a more controlled and planned way. Given the findings within this research study, there is a need for further research in this area, and to further investigate the explanations that have been put forward to account for the findings. Given the findings within this research study, there is a need for further research in this area, and to further investigate the explanations that have been put forward to account for the findings.

In terms of self-esteem, no difference was found between perpetrators of revenge porn and those who had not engaged in it. Whilst self-esteem has been found to have an important role in offending behaviour, and domestic violence (Byrne, 1971), this study has suggested that it does not play a role in the commission of revenge porn. It could be that the role of self-esteem is not a risk factor within the commission of sharing sexual images without consent, or it may be that the levels of impulsivity have a larger more dominant role in the likelihood of engaging in this.

As a result of these findings it is important to consider the preventative strategies that could be taken, or interventions that may be required for individuals to address this behaviour. For example, as a result of identifying characteristics that are associated with engaging in revenge porn, it may be increasingly possible to educate individuals about the effects and consequences of such behaviour. In terms of the interventions that individuals may require, it would be beneficial for levels of impulsiveness to be targeted as a treatment need. However, it is also acknowledged that if an individual is convicted of committing an act of revenge porn, it is possible that they may be considered a low priority for treatment in comparison to perpetrators of sexual offences. This may indicate that they may be less likely to receive an intervention should a custodial sentence be imposed. It may be more likely that they will obtain input if they receive a community sentence, where extra sanctions such as a Community Rehabilitation Order (CRO)

could be imposed. In such community sentences, individuals may be required to engage in interventions aimed at addressing their offending behaviour. As revenge porn is an offence against a particular individual these offenders may be generally regarded as low risk to other people within the community.

**Limitations**

This study has a number of potential limitations that are important to consider. Firstly, whilst the overall sample size was large and demonstrated good power, the number of participants that identified as having committed revenge porn was small. This is one of the significant limitations of the study and this means that the outcomes of this sample need to be interpreted cautiously. The researchers have attempted to mitigate against this by sharing it across numerous platforms in order to gain as many participants as possible, although the perpetrator sample size has still remained an issue. However, as one of the main aims of this research was to identify the prevalence of revenge porn it was important that this research was open to as many people as possible, and as only a small percentage of people identified as having shared an image without consent, this was the data available.

A further limitation within this study is the length of the online questionnaire. In looking at Bristol Online Survey data, over 2700 people did not move past the information page. Of those who did, the next part of the questionnaire that had the highest attrition rate was the page displaying the Social Problem Solving Inventory Questionnaire (D'Zurilla et al., 2002), where 383 individuals withdrew. It is felt that whilst an attrition rate is inevitable, it may have been useful to have used the short version of the SPSI-R, with the hopes of higher participant retention. This is important for future consideration.

The research questionnaire identified whether participants had ever shared or had a sexual image shared of them. In the questionnaire, current age at the time of participation was identified, and not the age that they engaged in or were victimised. It may have been beneficial to collect this data to gain more detailed

information on age at risk of perpetration/victimisation.

Within this study it is possible that participants could have responded to the survey in a manner that they consider socially desirable and that this response bias may have been present within the analysis therefore compromising the validity of the results. Similarly, participants may have suffered with respondent fatigue; become tired, not paying full attention to the questions or selected an answer without considering it (Lavrakas, 2008). It may have been helpful to control for respondent fatigue and socially desirable responding to aid the validity of results and as such this represents a limitation to the study.

Within this study there may be an element of self-selection bias which occurs when potential participants are allowed to decide whether or not they take part in a study (Lavrakas, 2008). It is possible that due to the topic of the study being displayed within the advertising for participant recruitment, some individuals may have been more inclined to take part. For example, individuals who have been affected by revenge porn (such as victimised) may have an increased propensity to complete the survey. In this circumstance, self-selection bias may have skewed the data and this may then have potentially inflated prevalence estimates within this study.

Finally, when analysing the perpetrator characteristics, matching case controls was performed using age and gender. On consideration, it would have been beneficial to match these on further variables which may strengthen the matching. These further variables may include time spent accessing social media platforms, which could have an impact on revenge porn likelihood. However, as the questionnaire was quite lengthy the researchers attempted to reduce the number of demographics captured to aid participation motivation and retention. As a result, some potential important information was not captured.

## Conclusions and Recommendations

This study has further explored factors that influence an individual's likelihood of engaging in revenge porn, as well as exploring coping and shame in

victims. It has also provided a further understanding of an act that is emerging within the literature, and an offence that researchers know relatively little about.

In moving forward, research should continue to focus on the personality characteristics of individuals that have committed revenge porn. Given the findings within this study, future research may want to focus on personality characteristics such as narcissism, psychopathy and antisocial traits and the role these have in revenge porn. Another avenue of research may be to consider the role of attachment in revenge porn. The purpose of this would be to gain more information in order to understand the factors that influence the likelihood of engagement in this behaviour, and as a way of identifying strategies to minimise this risk. It is important to consider aggravating factors to sharing sexual images, for example, who are the images shared with (i.e. are the images purposely sent to members of the victims family) and how does this affect the victim.

Future research may also want to establish the influence of other variables on the perpetration or victimisation of revenge porn. As a starting point, this may include considering information such as relationship status, sexual orientation and relationship history. This may further aid our understanding of revenge porn given that it could be considered relational in nature.

Furthermore, it would be helpful to consider differences between individuals that threaten others with revenge porn, and those who carry out an act as this study did not capture this. In addition to this, it would be helpful to consider effective ways in which victims, and those who have been threatened with revenge porn can be best supported, and any negative affects effectively managed.

# CHAPTER 4

## An Examination of the use of the Social Problem Solving Inventory-Revised (SPSI-R) with Forensic Populations

Reference for chapter:

Bothamley, S.L., & Tully, R.J. (2017). Use of the Social Problem Solving Inventory–Revised With Forensic Populations: A Psychometric Critique. *International Journal of Offender Therapy and Comparative Criminology*, 62(9), 2669-2686. Doi: 10.1177/0306624X17734801

### Abstract

*The Social Problem Solving Inventory–Revised (SPSI-R) is a popular psychometric tool used with multiple populations to assess individual problem solving ability. Problem solving deficits have been implicated within forensic literature, and therefore, assessment of these skills is essential to aid decision making and appraisal of treatment change in forensic populations. This review discusses the extent of the validity and reliability of the SPSI-R within forensic populations, and concludes that while the tool has some valid psychometric properties, further studies using larger forensic samples and being inclusive of more subgroups in forensic contexts are needed to provide reliable group comparison norms. Overall, users of the SPSI-R should be aware of the strengths and limitations of using this tool with a forensic population. Impression management is also a consideration when using the SPSI-R within forensic settings.*

## Introduction

This article aims to consider the use of the problem solving measure, the Social Problem Solving Inventory–Revised (SPSI-R; D'Zurilla, Nezu, & Maydeu-Olivares, 2002), in forensic populations. Specifically, normative data and psychometric properties (including internal reliability, face validity, concurrent validity, predictive validity, construct validity, and content validity) will be considered, with a focus on forensic application of the tool. Forensic application of this tool is important to consider, because forensic patients or clients can have deficits in this area (e.g., McMurran, Egan, Richardson, & Ahmadi, 1999), contributing to risk of offending, and there is no current, focused, forensic review of this tool. Practitioners working in this field need to be able to consider what measures they may wish to use to assess baseline or change, alongside other evidence, and indeed whether considerations need to be given to which normative sample they compare their clients with. The aim of this article is to therefore outline the tool itself, bring together relevant literature in this area, and critically examine the properties of the SPSI-R.

Problem solving can be defined as "*a self directed cognitive-behavioral process used when an individual attempts to find an effective solution to problems*" (Wang et al., 2013, p. 585). There are many definitions of problem solving, with a process of implementing a resolution often indicated within these explanations. Different theories of problem solving focus on different processes; however, all seek to explain the process that one may engage in when attempting to seek an effective outcome (Tallman, Leik, Gray, & Stafford, 1993). Pearlin and Schooler (1978) focus on the mechanisms involved in problem solving, while cognitive theories focus on the ways in which an individual processes information when attempting to problem solve (e.g., Kahney, 1986). D'Zurilla and Goldfried's theory of problem solving (1971; modified by D'Zurilla and Nezu, 1982) suggests that an individual's ability to solve problems and cope with stressors is based on a number of factors: a general "Problem Solving Orientation" and a "Problem Solving Style." "Problem Solving Orientation" is said to involve one's general motivational process in problem solving. "Problem Solving Style" can be characterised by the cognitions

and behaviours exhibited when experiencing a problem. In addition to this, D'Zurilla and Goldfried (1971, expanded by D'Zurilla & Nezu, 1982) theorised the presence of a set of steps that individuals may take when encountering a problem, which they termed "Rational Problem Solving." Rational problem solving highlights the process of exploring alternative solutions and decision making. Using this theory of problem solving, D'Zurilla et al. (2002) developed a measure to assess problem solving abilities and deficits in individuals, named the SPSI, with a revision in 2002 (SPSI-R).

There is a wealth of literature on the associations of problem solving abilities to outcomes. Weaker problem solving skills have been found to be associated with poorer mental health, and include hopelessness, anxiety, and depression (Esposito & Clum, 2002). Conversely, stronger problem solving skills have been associated with fewer mental health problems (Thornton, Collins, & Daugherty, 2006). In addition, interventions that utilise problem solving training can help to reduce stress levels (Cowen, Wyman, Work, & Iker, 1995). Problem solving can therefore be suggested to be dynamic, and to link to wellbeing.

Over time, research has suggested that problem solving has relevance to crime and delinquency. It could be understood that acquiring skills that provide an individual with the ability to solve problems is a learned process that occurs implicitly. To learn these skills, naturally an individual has to be presented with opportunities to observe them and assemble the necessary skills, and without these opportunities, individuals may be more likely to engage in dissocial acts (McGuire, 2004). In a series of comparative studies between "normal well adjusted" adolescents and others (including delinquents), Platt, Spivack, Altman, Altman, and Peizer (1974) found that the problem solving skills in the delinquents group were significantly lower than other populations. This suggests that offenders lack the thinking skills needed, including perspective taking and alternative thinking, which form part of the process of problem solving. This is not to say that poorer problem solving skills cause offending behaviour, but there may be an interaction with other identified risk areas that may influence an individual's likelihood of offending (McGuire, 2004). Such risk areas may be identified through structured risk

assessments and management tools, for example, the Historical Clinical Risk–20 tool (Douglas, Hart, Webster, & Belfrage, 2013). Poor problem solving skills have also been found in both male and female offenders with mental illness (McMurran et al., 1999); incarcerated adolescent offenders, where poorer problem solving skills have been associated with distress and suicidal ideation (Biggam & Power, 1999); and child molesters (Nezu, Nezu, Dudek, Peacock, & Stoll, 2005). Poorer problem solving skills have also been found to be associated with adult prisoners at risk of victimisation, bullying, suicide, or self-harm, and who have difficulty coping on a normal wing for these reasons (Hayward, McMurran, & Sellen, 2008), as well as prisoners with personality disorder (McMurran, Oaksford, & Christopher, 2010). An understanding of individual problem solving abilities can be especially useful in understanding and working on maladaptive problem solving strategies which may lead to offending (Andrews, 1995), and problem solving assessment measures may contribute to understanding these deficits and identifying appropriate treatment pathways. Furthermore, Marshall, Anderson, and Fernandez (1999) argue that there is a need to include problem solving training within treatment. Ross, Fabiano, and Ross (1986) found that offenders who had participated in treatment groups which incorporated problem solving skills training had significantly lower rates of reconviction than the control group. Furthermore, problem solving training has helped to reduce aggression in adolescent offenders (Guerra & Slaby, 1990), suggesting that effective problem solving abilities are important in behaviour trajectories. It can therefore be suggested that it is useful for practitioners to be able to assess problem solving abilities and deficits in offenders so as to help identify areas of concern. This will highlight where intervention may be required, and pre and post intervention testing could also be a way of assessing the individual's response to a problem solving intervention. This may contribute to an assessment of an offender's risk (whether that be recidivism or other vulnerability, such as distress and risk of self-harm/suicide) where their individual risks have been related to problem solving. Moreover, assessment of problem solving may aid understanding of associated concerns and therefore add to research in this area, in terms of identifying the specific components that may or may not be predictive of outcomes.

While the above discussion highlights that problem solving has relevance to forensic issues, to assess and treat problem solving deficits, a psychometric testing based method of assessing problem solving skills that is both reliable and valid with offending populations is required. Research into problem solving has utilised scales such as the Problem Solving Inventory (PSI; Heppner & Peterson, 1982) and the Means-End Problem Solving (MEPS; Platt & Spivack, 1975). However, many studies have used the SPSI by D'Zurilla et al. (2002). Despite this, the normative sample group for this scale was a nonoffending population, and so its use in forensic cases needs examination to assess its appropriateness for continued use with such a population, and to also consider whether offender groups differ or have varying normative outcomes on the scale.

Mitrushina, Boone, Razani, and D'Elia (2005) suggest that normative data for psychometric tests should bear a similar demographic makeup to that of the examinee, and caution should be taken in generalising these findings to a forensic population. Therefore, it is important to consider normative forensic samples when considering the use of tools such as the SPSI-R.

**Overview of the SPSI-R**

The SPSI-R is a theoretically informed psychometric tool designed to measure a person's ability to solve problems in everyday life across five dimensions. There is a 52-item long version (SPSI-R:L) and a shorter 25-item version (SPSI-R:S). The latter could be considered useful, because in clinical practice, time may be limited, or clients may not have sufficient attention span to be able to complete a long version.

The SPSI-R explores problem solving styles by asking respondents to think about the ways that they think, feel, and behave when encountering problems in everyday life. The questions/statements are answered using a 5-point scale. Five subscales are calculated to yield a Total Problem Solving score, where higher scores indicate more effective problem solving and lower scores represent a more dysfunctional problem style ability. While this total score can be helpful in gathering a general understanding of problem solving in individuals, it may be more useful to

look at the five factors within the SPSI-R to gain an understanding of deficits and abundances of specific problem solving constructs (D'Zurilla et al., 2002). In line with D'Zurilla et al.'s theory of problem solving, the Positive Problem Orientation (PPO) subscale measures an individual's constructive problem solving abilities and consists of five items in both the long and short version. The Negative Problem Orientation subscale (NPO) measures an individual's dysfunctional problem solving disposition. There are five items on the short version and 10 items on the long version. The Impulsivity/Carelessness subscale (ICS) measures an individual's tendency to solve problems in an impulsive, careless, hurried, and incomplete manner. There are five items within the short version and 10 within the long version of the SPSI-R. These two subscales have the fewest items and, therefore, should be treated with more caution in interpretation compared with other subscales of the tool. A further subscale measures an individual's tendency to avoid dealing with problems through inaction, procrastination, and dependency on others; the Avoidance Style (AS) contains seven items within the short version and 10 within the long version. Finally, the fifth subscale that is included within the SPSI-R is called the Rational Problem Solving subscale (RPS). This is made up of five items within the short version and 20 items within the long version, and measures an individual's tendency to solve problems using a constructive and rational process. The long version of the SPSI-R breaks these down into further four subscales, measuring an individual's ability to define a problem (Problem Definition, PDF), Generate Alternative Solutions (GAS), make a decision (Decision Making, DM), and implement and evaluate a solution (Solution Implementation/Verification, SIV). The tool, therefore, is multifaceted and can be examined in a fair amount of depth. The breakdown of problem solving into multiple subscales could be useful in terms of the assessment of an individual, because a treatment plan can be individualised based on the findings of their assessment and the deficits and strengths highlighted.

**SPSI-R Normative Data**

The manual for the SPSI-R details multiple samples on which the scale was tested and normed; 708 adolescents (13-17), 1,020 young adults (17-39), 100

middle-aged adults (40-55), and 100 elderly adults (60-80). Following the initial SPSI-R data collection, D'Zurilla et al. (2002) completed a number of further studies, with a number of alternative populations, including psychiatric and distressed populations, individuals with depression, and students to aid in the development of the SPSI-R. The range of normative data allows for more accurate interpretation as well as adding validity and generalisability of results (O'Connor, 1990).

Currently, the SPSI-R is a prominent measure of problem solving which is applied with various subtypes of populations. Specifically, within forensic populations, several studies have utilised this psychometric tool with male and female offenders, sexual and violent offenders, as well as offenders located within prison and secure psychiatric hospitals. The SPSI-R data gathered in these studies, by SPSI-R domain, are reported in Table 14 below.

Table 14: Included studies SPSI-R data information

| Sample | Short or Long version | n | PPO M(SD) | NPO M(SD) | RPS M(SD) | ICS M(SD) | AS M(SD) | SPS M(SD) | Source |
|---|---|---|---|---|---|---|---|---|---|
| **Incarcerated Offenders** | | | | | | | | | |
| Adult Vulnerable Prisoners | L | 68 | 10 (5.31) | 23.72 (10.56) | 38.06 (19.69) | 21.29 (10.53) | 14.75 (7.07) | 9.29 (3.74) | Hayward, McMurran & Sellen (2008) |
| Adult Mainstream Prisoners | L | 47 | 12.26 (5.03) | 15.53 (12.22) | 37.49 (17.17) | 15.02 (10.03) | 10.45 (7.62) | 11.78 (4.11) | Hayward, McMurran & Sellen (2008) |
| Adult Male Prisoners (Sex Offenders) | L | 124 | 12.34 (3.86) | 19.91 (11.41) | 43.29 (14.86) | 18.04 (8.44) | 11.57 (7.39) | | Nezu, Nezu, Dudek, Peacock & Stoll (2005) |
| Adult Male Prisoners (Sex Offenders) | L | 499 | 12.05 (3.80) | 12.43 (8.72) | 44.12 (15.84) | 12.65 (8.16) | 7.51 (5.55) | 12.86 (3.33) | Wakeling (2007) |
| Adult Male Prisoners | S | 137 | 11.73 (4.23) | 13.66 (4.75) | 9.87 (4.76) | 12.54 (4.27) | 13.51 (4.91) | 12.28 (3.43) | Burgoyne & Tyson (2013) |
| Adult Male Prisoners (Violent, acquisitive & Drug offences) | S | 68 | 12.62 (4.09) | 7.10 (4.63) | 10.00 (4.39) | 9.15 (4.73) | 7.07 (4.94) | 11.86 (3.44) | McMurran & Christopher (2009) |
| Adult Male Prisoners (non-sexual offenders) | S | 71 | 12.38 (4.19) | 6.90 (4.58) | 9.86 (4.37) | 8.97 (4.93) | 7.07 (5.12) | | McMurran, Oaksford & Christopher (2010) |
| **Secure Psychiatric Settings** | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Female Medium Secure | S | 24 | 8.92 (4.75) | 10.42 (5.85) | 8.35 (6.28) | 7.39 (5.18) | 8.76 (5.48) | 10.26 (4.36) | Long, Fulton, Dolley & Hollin (2011) |
| Male and Female Secure Psychiatric Forensic Patients | L | 52 | 10.85 (4.66) | 20.77 (9.05) | 37.87 (15.33) | 18.52 (9.52) | 12.27 (7.00) | 10.35 (3.46) | McMurran, Egan, Richardson, Ahmadi (1999) |
| Medium Secure Male Personality Disorder (Treatment Completers) | L | 21 | 10.29 (3.95) | 22.76 (8.49) | 34.71 (18.16) | 20.52 (7.59) | 15.81 (5.14) | | McMurran, Huband & Duggan (2008) |
| Medium Secure Male Personality Disorder (Treatment Non-Completers | L | 35 | 8.49 (4.96) | 22.29 (9.19) | 23.83 (16.59) | 25.83 (8.51) | 16.00 (6.67) | | McMurran Huband & Duggan (2008) |
| **Offenders with Intellectual Disability** | | | | | | | | | |
| Adult male and female offenders with Intellectual Disability (Violent & Sex offenders) | S | 132 | 5.3(?) | 13.9(?) | 8.1(?) | 14.5(?) | 10.8(?) | | Lindsay, Hamilton, Moulton, Scott, Doyle & McMurran(2011) |

| **Individuals with Drug Dependence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Non-offending Individuals with Drug Addiction | L | 29 | 11.55 (5.04) | 18.96 (8.88) | 40.55 (14.92) | 19.72 (7.77) | 11.03 (6.48) | | Kolesnikova & Miezite (2007) |

Note: Blank spaces indicate unreported results. SPSI-R = Social Problem Solving Inventory–Revised; PPO = Positive Problem Solving; NPO = Negative Problem Orientation subscale; RPS = Rational Problem Solving subscale; ICS = Impulsivity/Carelessness subscale; AS = Avoidance Style; SPS = Social Problem Solving.

In comparing the SPSI-R scores with the normative data reported in the SPSI-R manual, Nezu et al.'s (2011) data and Wakeling's (2007) pretreatment data for incarcerated sex offenders (*n* = 499) sit within the same standard deviation as the normative sample data by D'Zurilla et al. (2002) for young adults. Posttreatment data reported within Wakeling's research were within the same standard deviation as the normative data for middle-aged adults. The mean age of Wakeling's sample used was 43.51 years, suggesting that post treatment, they fell within the normative population for their age. However, it is important to note that the sample used by Wakeling (2007) was 91.3% White, whereas Allen and Dempsey (2016) report that White males account for 74% of the prison population. This is also similar for the ethnicity of sex offenders, where 82% of sex offenders in a prison setting have been reported as of White ethnic origin (Office for National Statistics, 2013). This suggests a slight underrepresentation of other ethnicities, and therefore, caution must be taken with regard to generalising these data to populations where ethnic origins tend to be diverse. Similarly, McMurran et al. (1999) found that the norms reported for male and female forensic psychiatric patients (*n* = 52) did not significantly differ from the norms reported by D'Zurilla et al. (2002) from the standard psychiatric sample reported in the manual suggesting similar norms. Within secure settings, the baseline scores for a male personality disordered forensic population (Total *N* = 56; McMurran, Huband, & Duggan, 2008) are comparable with the findings for male and female forensic psychiatric offenders (*n* = 52; McMurran et al., 1999) and vulnerable adult prisoners at risk of victimisation and bullying and may have mental health concerns (*n* = 68; Hayward et al., 2008). However, McMurran et al.'s (1999) study only had four females who took part suggesting that there is a need for further research in the field of social problem solving in female offenders. Furthermore, aspects such as socioeconomic status and race have not been reported in the studies, and this may present a concern when generalising the SPSI-R findings, such that it may warrant further research in these areas. However, these findings fall within the same standard deviation as the normative data reported in the manual for a psychiatric adult population on each subscale (Total SPS is not included as this score is not included in some papers). While this is the case, the scores for the ICS scale are perhaps

more accurately reflected in the psychiatric adolescent normative data reported in the manual, which may be a result of the higher levels of antisocial personality disorder within forensic populations (47%; Fazel & Danesh, 2002), and may reflect the traits of antisocial and borderline personality disorder, where one of the criteria is impulsive behaviour (Coid, 2002). Therefore, clinicians should refer to the means and standard deviations specific to the population that the individual under assessment best fits in to.

Within prison settings, differences have been found between "mainstream" prisoners and those managed on a vulnerable prisoner unit (at risk of bulling, psychiatric concerns), where mainstream prisoners have better problem solving skills than their vulnerable counterparts (Hayward et al., 2008). This indicates that poorer problem solving has some link with this sort of vulnerability in prisoners and lends to a reasonable suggestion that a psychological intervention targeted at improving problem solving would be worthwhile with this subpopulation of prisoners. Furthermore, there are similarities between the reported normative data for young adults within the SPSI-R manual and McMurran and Christopher's (2009) and McMurran et al.'s (2010) studies on offenders convicted of violence, acquisitive, drug offences, or dangerous driving ($n$ = 68 and $n$ = 71, respectively). When using the short version of the SPSI-R, the scores fall within the same standard deviation for each individual subscale. This suggests that offenders in general have been found to have a more similar problem solving profile to young adults and so comparison by chronological age may be less useful for offenders. However, one thing to note is the relatively small sample sizes within each study, with the exception of Wakeling's (2007) sample of 499 sex offenders, the predominantly male participants, and the nonreporting of other differences in offender samples, such as race, ethnicity, and socioeconomic status. Therefore, further research in forensic populations is required as this is a heterogeneous group where generalisability is difficult. Those applying the SPSI-R with this population should be aware of the limitations of using normative data with this group of people.

## Psychometric Properties

The British Psychological Society (BPS) defines a psychometric test as "any procedure on the basis of which inferences are made concerning a person's capacity, propensity or liability to act, react, experience, or to structure or order thought or behaviour in particular ways" (Cutt, Flynn, Mowl, Orme, & Davis, 2012, p. 51). For any psychometric test to be classed as a "good" tool, there are a number of factors that should be taken into consideration, whereby there should be evidence to support the test, in relation to its reliability and validity (BPS, 2007). This section of the article will examine findings in relation to the psychometric properties of the SPSI-R.

### Internal Reliability

*Internal reliability* refers to the consistency of the test and whether or not all the test items or subscales are measuring the same thing (Coolican, 2004). A common measurement of internal reliability is by calculating Cronbach's alpha (coefficient value) for each subscale in the psychometric test (Field, 2014), with a coefficient value of .7 or above representing a good level of internal consistency.

Cronbach's alpha coefficients were calculated for each group represented in normative sample data within the SPSI-R manual. The coefficient values ranged from .60 for the "Positive Problem Orientation" scale for adolescents to .95 for the "Rational Problem Solving" subscale for middle-aged adults, which shows a moderate to high level of internal consistency. However, the only two moderate coefficients (.60 for adolescents and .69 for elderly adults) were both on the "Positive Problem Orientation" subscale. This subscale also contains the lowest number of items of all the subscales. It may be possible that the internal consistency on these subscales were only "moderate" due to the low number of items ($n$ = 5), and had this scale had more items the coefficient value may have increased, although currently it demonstrates adequate reliability. Field (2014) suggests that lower coefficient values can be the result of having a low number of items on a scale. The coefficients for the Total Problem Solving Scale ranged from .85 to .93, which indicates a good level of consistency for the overall scale.

Wakeling (2007) found that the internal consistency in a sample of 499 incarcerated sex offenders was similar to the normative samples reported by D'Zurilla et al. (2002) and ranged from .73 to .92 for the subscales. Internal consistency with offenders with intellectual disability (*n* = 132) is .84 (Lindsay et al., 2011), and ranged from .64 to .83 in a sample of individuals with drug addictions (*n* = 29; Kolesnikova & Solveiga, 2007). This suggests that the SPSI-R may be a reliable tool within forensic populations as there is an acceptable level of internal consistency that has been found to be stable across samples. However, multiple studies did not report Cronbach's alpha coefficients for their data, which could be important for further establishing reliability of the SPSI-R within forensic populations.

**Test–Retest Reliability**

"External Reliability" (or test–retest) reliability refers to the stability of the results at two different points in time (Coolican, 2004). The authors of the SPSI-R describe two sets of test–retest reliability results, one in young adults (*n* = 138) over a 3-week period and a second for nursing students (*n* = 221) over a 6-week period. The data sets indicated test–retest validity sores of .71 to .88 and .68 to .91 for the subscales, respectively, indicating adequate to high levels of external validity. Further validation for the test–retest validity comes from Wakeling (2007) whose test–retest scores within a sex offender population (*n* = 499) were similar to the test–retest scores for the normative samples: .75-.91, with the test–retest reliability of ICS scale higher than those reported for young adults and nursing students (.91). Lindsay et al. (2011) reported good levels of external consistency with offenders who have an intellectual disability (*n* = 132); measured over a 2-week period, the test–retest validity was .79, supporting the external consistency of the SPSI-R. Again, the good external consistency of the SPSI-R suggests that it is reliable for use within an offending population, although due to the limited external reliability studies of the SPSI-R within offending populations, it would be beneficial for further examination within this area using larger samples.

**Face Validity**

This refers to the "extent to which the validity of a test is self-evident" (Coolican, 2004, p. 198). Kline (2013) argues that while face validity is valuable, as it can act as a motivator for participants, it may also enable participants to present themselves in a negative light, or a socially desirable light more easily. The authors of the SPSI-R have addressed the potential issue of malingering (or response bias) in a dedicated section within the manual, and while there is no malingering subscale within the tool itself, the SPSI-R authors recommend that the results from the SPSI-R should be taken into consideration with other information (i.e., contextual), as with any psychometric tool. The SPSI-R may be subject to a response bias, and participants may want to present in such a way that exaggerates their problem solving ability. In an offending population, this may be of particular importance because of perceived potential implications that the outcome of psychometrics can have. For example, Nezu et al. (2005) highlight that their study of incarcerated offenders may have "led some participants to provide less than valid responses hoping that their answers would impact positively on their prison terms" (p. 35). This aspect of responding can undermine the outcomes of studies, and in forensic applications can only be attempted to be controlled for in forensic settings if the participants consented to engage on the basis that the test outcomes are not utilised in clinical practice. However, even then, participants may believe that the results could be seen by the staff members working with them and considering their progress, and their responses may be distorted. Furthermore, Gudjonsson and Sigurdsson (2000) found that the social desirability in offender subgroups differs, with child molesters scoring higher for social desirability than other offender groups (Tan & Grace, 2008). While the authors of the SPSI-R have highlighted this concern, it is important to consider when interpreting the scores on the SPSI-R for offender samples, as there is the potential for exaggeration of their skills. This is supported in Wakeling's (2007) findings on incarcerated sex offenders, where the inclusion of the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1984) indicated that as the SPSI-R scores increased, so too did the BIDR scores. This supports the hypothesis that forensic populations may respond to SPSI-R items in a socially desirable manner to attempt to impression manage. It

may therefore be beneficial for use within forensic populations to include the use of a deception scale (e.g., Paulhus Deception Scale; Paulhus, 1998) to assess response reliability as is recommended as good practice when assessing anger using psychometric tests (Schamborg, Tully, & Browne, 2015). Differences in social desirable responding and impression management have been found in both inter and intrafamilial offenders (e.g., Tan & Grace, 2008), which supports that the use of a deception scale within the various subtypes of forensic populations may aid reliability.

**Concurrent Validity**

Field (2014) describes concurrent validity as a "form of criterion validity where there is evidence that scores from an instrument correspond to concurrently recorded external measures conceptually related to the measured construct" (p. 872).

D'Zurilla et al. (2002) reported the correlations between the SPSI-R and a similar psychometric that measures individuals' perceptions of their own attitudes and behaviours toward solving problems. The PSI (Heppner & Peterson, 1982) is another wellknown psychometric tool that measures constructs of problem solving on three subscales: problem solving confidence, approach avoidance style, and personal conflict. D'Zurilla et al. found that there are significant similarities in terms of the constructs measured within the SPSI-R and PSI, suggesting that both the psychometric tools capture similar facets of problem solving. All 20 of the correlations between the PSI and SPSI-R reported in the manual are significant ($p < .01$).

The SPSI-R has been found to have good concurrent validity with the Beck Depression Inventory, specifically on the NPO subscale (–.57, $p < .01$), which possibly reflects the overlapping constructs of negative dispositions (Hawkins, Sofronoff, & Sheffield, 2009) and the association between improved mood and better problem solving ability, specifically in young offenders ($n = 46$; Biggam & Power, 2002). Research into the concurrent validity of the SPSI-R within offender samples is limited, and therefore, this is an area that requires some development.

Furthermore, the findings for concurrent validity reported in the manual are a re-analysis of original SPSI data (D'Zurilla et al., 2002), and as these data are more than 25 years old, it would be beneficial to update these data and consider concurrent validity with more recent samples.

**Predictive Validity**

Within the SPSI-R manual, there are a number of pages devoted within a chapter discussing the predictive validity of the SPSI-R. *Predictive validity* can be understood as the "extent to which test scores can be used to make a specific prediction on some other variable" (Coolican, 2004, p. 198) and is an important factor in determining the overall efficacy of a psychometric tool. D'Zurilla et al. (2002) present a table showing the relationship between the subscales of the SPSI-R and traits including depression, hopelessness, stress, and suicidality in college students. They found that each scale was able to predict with good degree the relationship between an individual's problem solving ability and the distress levels of the college students. It appears that the individual's problem orientation is the most important predictive factor in predicting distress. Positive problem orientation (or an individual's tendency to view a problem as a challenge rather than a threat) was significantly negatively associated with levels of stress ($r$ = –.33), anxiety ($r$ = –.42), depression ($r$ = –.25), hopelessness ($r$ = –.36), and suicidality ($r$ = –.32). NPO was associated with the above to a significant degree in each distress measure and the overall best predictor of distress (D'Zurilla et al., 2002). This supports the predictive validity of the SPSI-R for these issues. Problem solving theory D'Zurilla et al. (2002) appears well supported, which has influenced the properties and attributes of this psychometric tool. However, Kant, D'Zurilla, and Maydeu- Olivares (1997) found the RPS subscale was not significantly associated with the levels of depression or anxiety in an elderly sample. Unlike the elderly adult sample, the RPS subscale was found to be an important determining factor in levels of depression and anxiety in the "middle aged" sample. Kant, D'Zurilla, and Maydeu-Olivares (1997) note that this difference could potentially be due to the type of problem encountered. They posit that problems related to chronic health issues may foster a sense of helplessness (as in the older population), and these problems are largely

unchangeable. In relation to an offending sample, it would be reasonable to suggest a similar hypothesis, whereby the nature of incarceration may foster a sense of helplessness and that the problems encountered in prison are largely unchangeable at that very time although there is no research that supports this theory.

Within offender populations, Biggam and Power (1999) emphasise similar findings ($n$ = 100); poorer problem solving abilities were correlated with higher levels of distress including depression and suicidal/parasuicidal behaviour. Given this, it is possible that the SPSI-R may be useful in distinguishing offenders who may not be coping and require extra support compared with those people who are better able to manage within prison settings. Such knowledge could help with the treatment and management of offenders and is an area for further research. Furthermore, McMurran and Christopher (2009) found that the NPO subscale was the sole predictor of depression and anxiety in incarcerated violent, acquisitive, and drug offenders ($n$ = 68, $r$ = .35, and $r$ = .38, respectively). This does not imply causality, but does demonstrate a link between negative problem solving and these mental illnesses, and potentially helps in identifying prisoners that are struggling to cope within a prison setting.

Within a study of 124 sex offenders, the NPO and ICS subscale was found to be predictive of current sexual deviancy, $r$ = .29 and $r$ = .39, respectively, and avoidant problem solving style (AS) was indicative of past sexual aggressive behaviour, $r$ = .31 (Nezu et al., 2005). Sexual aggression has been associated with increased scores on the NPO, ICS, and AS subscales of the SPSI-R (D'Zurilla et al., 2002) demonstrating that poor problem solving has links to sexual offending as well as other issues within forensic populations.

Within an adolescent sample, social problem solving was found to be a significant predictor of externalizing behaviour, or the negative outward expression of behaviour onto the environment, including alcohol use, tobacco use, marijuana use, aggression, and reckless driving (Jaffee & D'Zurilla, 2003). Within these findings, the ICS subscale was significantly correlated with most externalizing behaviours: delinquency ($r$ = .32), reckless driving ($r$ = .33), intoxicated driving ($r$

= .30), and marijuana use (*r* = .26). It is important to highlight that while this sample was not an incarcerated offender population, some of the behaviours described do constitute risk areas in the development of offending.

Further research into the predictive validity of the SPSI-R within offender populations is necessary to help understand this population better, and the links between problem solving and offending. For example, Wakeling (2007) suggests that research should focus on associations between SPSI-R scores and the relationship with reoffending. This may increase our understanding of the association between problem solving and recidivism. Furthermore, the predictive validity of certain behaviours appears well supported by the SPSI-R subscales, including the AS, NPO, and ICS. Further research on the RPS subscale appears to be warranted because significant associations between this subscale and offender populations is limited. It is possible that offenders have rational problem solving skills, but that avoidant and negative problem orientation impede on their ability to utilise the skills (Hayward et al., 2008).

**Construct Validity and Content Validity**

Coolican (2004) defines *construct validity* as the "extent to which test results support a network of research hypotheses based on the assumed characteristics of a theoretical psychological variable" (p. 198). Content validity refers to the extent that the "content of a test corresponds to the content of the construct it was designed to cover" (Field, 2014, p. 872).

The development of the SPSI-R has its roots in problem solving theory, and as such, a five-factor construct model on which it is based is well supported (D'Zurilla et al., 2002). A five-factor structure of the SPSI-R was revealed, and factor loadings support this structure (D'Zurilla et al., 2002). Studies carried out on different subcultures have yielded similar results for the construct validity of the SPSI-R. In a study of incarcerated sex offenders, Wakeling (2007) confirmed a five-factor construct within a sample of 499 sex offenders. This model was almost identical to the five-factor model by D'Zurilla et al. (2002) represented in the SPSI-R, suggesting that the construct and content validity of the psychometric is sound

and suggests that the tool is both reliable and valid when used with offending populations. However, this is with the exception of Item 42 on the SPSI-R ("When I am faced with a difficult problem, I go to someone else for help in solving it"), which had a factor loading of <.3 and low correlations with the other items. Wakeling (2007) does provide a possible explanation for this; prisoners have to depend a lot on staff to carry out daily tasks and so this may be seen by prisoners as a positive problem solving technique. However, within the manual, this item is categorised within the Avoidant subscale, indicating that reliance on others for guidance is not a positive coping skill (as it may be viewed in a prison setting), but a negative strategy. The interpretation of the SPSI-R scores, therefore, needs to be taken into consideration when applied to offending populations, due to the limited approaches that individuals are able to employ when solving their problems and how the exact wording of questions may be impacted on by the context that the person is being assessed in, for example, in prison or psychiatric hospital where opportunities for autonomous problem solving are reduced. In detained samples, approaching staff and prison officers should be viewed as a positive problem solving technique, whereas if the person was in the community, passing their problems to others may be seen as avoidant. In incarceration contexts, some prisoners join gangs as a means of protection (Rufino, Fox, Cramer, & Kercher, 2013). This could mean that they are more likely to ask other prisoners for help when dealing with a problem, therefore suggesting a more collectivist culture. If this is the case, then the validity of some items in the SPSI-R with an incarcerated offending population is questionable. Moreover, the SPSI-R may have stronger validity in cultures and subcultures whose values support an individualistic philosophy. This warrants further research on contextual approaches to problem solving, as Heppner (2008) points out there is a tendency for the "development of theoretical models that assumed a monocultural context" (p. 813).

The prison environment can be threatening, where maladaptive strategies such as violence can be viewed as adaptive in this setting (Ireland, 2013) and where problem solving abilities may be exaggerated. Furthermore, some of the content of the SPSI-R may be inappropriate for use within prison populations because the SPSI-R was developed outside of prison settings (Wakeling, 2007).

Therefore, future research should be conducted with context specific adaptations made to the content of the SPSI-R so as to make it more applicable to incarcerated offenders, attending to issues specific to this population, such as a limited autonomy and restricted opportunity to address problems as they may do if they resided in the community. If this tool is applied in a detained environment, careful interpretation of the scores is therefore vital, taking into account where the participant is located. Examination of item level responses may be needed so as to assess whether a score on one of the subscales truly represents a deficit or if it is actually influenced by the context and consideration of the psychometric test findings in the wider context of the recorded/reported behaviour of the person.

## Conclusion

The SPSI-R has been applied and tested within many different offender populations, and forensic norms have been summarised in this article as a useful aid for the reader who may wish to compare the findings of an individual with the most appropriate normative data set. Further studies researching normative data for the SPSI-R within forensic populations are needed, with larger sample sizes, inclusive of female offenders, offenders of different age groups, and individuals with different ethnic origins to reveal some of the individual differences in incarcerated populations. It is of note that the data reported within this article are collated mostly from studies in which researchers originally gathered data for different purposes. As such, these studies were not aimed at solely establishing normative data of the SPSI-R within offending populations. Research with the primary focus of establishing normative data and examining the reliability and validity of the tool and its subscales across offender subgroups would therefore be beneficial due to the reported differences in problem solving identified. In addition, further research is required to develop normative data for offenders with an intellectual disability as scores reported by Lindsay et al. (2011) are not comparable with any of the normative sample data reported in the manual, suggesting that this tool is not necessarily appropriate for use with this population, or at the least that the manual norms are not applicable to this population. Understanding of the items is a very important consideration when working with offenders in forensic settings more

generally, where poor education and lower reading abilities are present when compared with the general population (Clark & Dugdale, 2008).

While a number of studies have reported the internal and test–retest reliability for the SPSI-R within offending populations, further research is required to ensure this is consistent across a range of offending populations in a variety of settings. Clinicians should also refer to the appropriate means and standard deviations specific to the population from which they are drawn. The SPSI-R appears to be well supported in terms of its predictive validity within offending populations, with the NPO, AS, and ICS subscales having been examined for predictive value for various outcomes, and specifically, the links between scores on the scales and recidivism should be further examined. However, this review has found that concurrent validity does need further consideration within future research.

The face validity of the SPSI-R within forensic populations may be problematic, due to the possibility of socially desirable responding and impression management that may be prevalent within offending populations. This could be due to the possible implications that psychometrics may have in aiding decision making where prisoner release or progression is concerned. It is suggested that when assessing forensic populations for anger, a deception measure is used (Schamborg et al., 2015). The same suggestion is made here as a best practice recommendation given that offenders may be assessed for improvements in problem solving ability, or as a measure of treatment progress, which may subsequently be considered in parole decisions. The application of a psychometric test such as the Paulhus Deception Scale (Paulhus, 1998) would be beneficial to explore this. Indeed, when using the SPSI-R with offending populations, steps should be taken to ensure that it is used in conjunction with other data on the individual, including observations and incident records.

Finally, this examination of the SPSI-R has highlighted that some individual items on the SPSI-R have low correlations with other items, possibly due to the location of the individual completing the psychometric. In addition to responsive

and careful interpretation, there is the potential for an adaptation of these specific items, ensuring that the limited freedom and autonomy that incarcerated offenders have is taken into account in test interpretation. This may further increase the validity of this tool with these populations but would need more research to establish normative data for an adapted version of the tool. Overall, this tool, which is often used with forensic populations, should be used with caution, and users should be aware of the properties of strength, and areas of weakness, of this tool for measuring problem solving abilities or deficits in forensic populations.

# CHAPTER 5

## Individuals who commit Revenge Porn: An exploratory media analysis of U.K cases


### Abstract

*Revenge porn was legislated for by the British Parliament in 2015. Since its legislation, a number of individuals have been found guilty in the British Judicial system for the distribution of a private sexual images. The following analysis explored cases of revenge pornography that have been proved in the British court system. 68 cases of revenge porn reported in the media were identified using online search engines. The characteristics of offenders and victims were examined, the relationship characteristics of offenders and victims were examined, as well as offence details, and sentencing outcomes. Univariate analyses indicated that 85.3% offenders were male, and 91% of victims were female. Of cases that reported prior relationship details, 88.7% were prior intimate partners. Within this exploratory analysis, 39.7% reported other offences in addition to revenge porn. These additional offences included assault and harassment. Of the cases that reported the law in which was used to prosecute the individuals under, 74.2% were prosecuted under laws regarding the revenge porn. 44.1% of individuals reported in the cases received a custodial sentence. Bivariate analyses indicated that offender and offence characteristics were not associated with type sentence.*

## Introduction

In 2015 the U.K Parliament passed law criminalising the act of disclosing private sexual photographs with the intent to cause distress under Section 33 of the Criminal Justice and Courts Act 2015. It is commonly known as revenge porn and carries a maximum sentence of two years imprisonment. Throughout this literature review, aspects of revenge porn will be commented on, including offence characteristics such as method of image distribution, sentences that have been passed to date, and other laws that revenge porn may be prosecuted under. Whilst there continues to be a paucity of research in relation to revenge porn, victim and perpetrator characteristics will be drawn upon, and use of research in other areas may aid this.

In 2016, The Crown Prosecution Service produced their annual 'Violence against Women and Girls report' detailing the latest statistics on cases of rape, domestic abuse, sexual offences and child abuse. Within this, statistics involving the dissemination of private sexual photographs without consent were reported. In the year 2015-2016 there have been over 206 prosecutions commenced for revenge porn (CPS, 2016). The report supports revenge porn as a coercive and controlling act and noted that perpetrators often use other tactics in addition to revenge porn, such as closely monitoring phone and/or email messages, and even monitoring their partners with GPS tracking. This suggests that the act of revenge porn is not an isolated one, but is closely linked with other controlling acts such as those mentioned above, and supports this notion that has previously been indicated by Henry & Powell (2015). However, there appears a lack of empirical research to support this notion.

A Freedom on Information request completed in 2014 reports that of 149 revenge porn incidents reported between January 2012 and June 2014, six resulted in a caution or charge (Press Association, 2015). As a percentage, this is 4%, in two and a half years indicating that a poor likelihood of conviction for revenge porn. In the six months prior to April 2015 when the legislation on revenge porn was

passed, a total of 139 revenge porn cases were reported to the police with 13 individuals cautioned or charged (Press Association, 2015). When compared to the previous figures, this is a significant increase in allegations made to the police. This suggests an awareness that victimised individuals may be increasingly aware that this is an offence that could be pursued by the police. It is possible that this awareness may increase levels of reporting.

When considering reporting rates for crimes it is documented that reported and recorded crime is significantly less than actual occurrence. This is also known as the dark figure of crime and indicated within the discrepancy between the victim surveys (for example, the Crime Survey for England and Wales; ONS, 2016) and recorded crime statistics. From this, we can infer that only a portion of those victimised by revenge porn go on to report it. However, what remains is the high attrition rate for revenge porn cases and low conviction rate as indicated in the figures reported above. This suggests that whilst people may be increasingly likely to report such cases it is unlikely to result in a conviction.

There remains a paucity of research as to the characteristics of the victims of revenge porn. However, in 2013, the Cyber Civil Rights Initiative (CCRI) conducted a survey on revenge porn and found that 90% of the victims are female. In addition to this, 49% stated that they had been further harassed online by individuals who had seen their material. This suggests an ongoing re-victimisation in addition to the original act of revenge porn. In relation to ages of victims, 68% indicated that they were between 18 and 30. Almost one third of these were between the ages of 18 and 22 (CCRI, 2013).

Although a law has been introduced for revenge porn in England and Wales, acts of revenge porn have also fallen under alternative legislations. Certainly, prior to 2015 alternate legislation may have potentially been relied upon to prosecute these acts. The CPS (2015) indicate the acts that revenge porn may also have been prosecuted under, including the Protection from Harassment Act 1997, the Communication Act 2003, the Malicious Communication Act 1988, the Computer

Misuse Act 1990, and in cases where the image is of an individual under the age of 18, the Protection of Children Act 1978. It is possible that acts of revenge porn continue to be prosecuted under alternative acts, for various reasons, however it is only beneficial that there is now a law which enables to prosecute this specific offence.

Revenge porn occurs through various outlets, and the rise of prosecutions have been highlighted in the annual Violence Against Women and Girls (CPA, 2016) report. Certainly, the Director of Public Prosecutions Alison Saunders purports the rise in prosecutions perhaps to be indicative of the increase in offences committed via social media (CPS, 2016). However, the law in England and Wales does not stipulate the methods in which revenge porn is distributed, suggesting that there are numerous vehicles of dispersal. This includes via text messages, emails, and more traditional dissemination such as printing, in addition to social media such as Facebook, Twitter, Instagram. The multiple methods of distribution may make it even more difficult for victims to ensure removal of the images. Furthermore, there have been cases of specific websites that have had significant numbers of revenge porn postings and has operated as a vehicle for distribution. Such an example, which was shut down in 2012 due to the amount of revenge porn posts is 'IsAnyoneUp.com". Within these websites, profit has been a characteristic, where victims are alerted to website, and then are required to pay for the removal of the image from the website. Whilst removal of the images from websites falls to the responsibility of the website provider, the CPS (2015) notes that with regards to websites specifically designed to distribute revenge porn, it is entirely possible that the website provider could be guilt of facilitating the dissemination. An example of this is the case of Kevin Bollaert from San Diego, who was sentenced to 18 years for running a website dedicated to revenge porn, and subsequently charging victims a fee of $300-350 to remove the images (Zabala & Stickney, 2015). In addition to this the location of website hosts as well as individuals depicted in the photographs not owning the copyright to the images that appear online make the images even more challenging to remove (Guardian, 2016). This example again highlights the

difficulties of removing private sexual photographs from the internet and also the financial gain that some individuals receive by hosting such images.

With regards to the characteristics of individuals who commit revenge porn, there is a need for more research in this area. In the CCRI (2013) survey, results found that 57% of the perpetrators were an ex-boyfriend, and 6% were an ex-girlfriend. Surprisingly, 23% of the perpetrators were ex-friends suggesting that whilst revenge porn may often be committed by an ex-partner, it can also take place in the context of other relationships. McCue (2016) reported that offender characteristics are difficult to draw conclusions from, citing the low numbers of individuals who identified as being victimised (and therefore lack of information) as a reason for this.

The law carries a maximum sentence of two-years imprisonment for the sharing of private sexual photographs with the intent to cause distress. Within the Violence Against Women and Girls report (CPS, 2016) a number of cases were given as examples of individuals successfully prosecuted. Their sentences ranged from fines, community orders and suspended sentences to custodial sentence of a period of months. Additional sanctions were imposed on some of the examples given, including restraining orders and tagged curfews. The afore mentioned sanctions indicates that there are a range of penalties that have been imposed when an individual is found guilty under the Criminal Justice and Courts Act 2015.

As mentioned above, it still remains that due to a multitude of factors, incidents of revenge porn that are result in a conviction or caution are significantly less than those that are reported, and less still than incidents that actually occur. This suggests that there may be a wealth of information about the perpetrators that we are unaware of. In addition to this, a paucity of research on revenge porn suggests that this is an area that is in need of development. One way that we can gather more details on this topic is to carry out an exploratory analysis of the cases that are reported in the media. It is within these cases that are reported by the media that the characteristics may be analysed in order to gain more information

about the perpetrators, victims and revenge porn offence characteristics. This exploratory analyses aims to summarise data reported in cases of revenge pornography and identifying relationships between variables that may act as indicators that an individual may commit revenge porn.

### Aims and objectives

The aims of this exploratory analysis are as follows:

1. To examine the characteristics across cases of revenge porn where the act of revenge porn has been proved.

2. To explore characteristics associated with revenge porn, and aggravating factors such as other crimes committed that the perpetrator is charged with.

3. To explore the sentencing characteristics that the perpetrators receive and associations that they have with other characteristics.

It is hypothesised that most offenders will be male and the individuals that have been victimised female ex-partners. It is also hypothesised that in a number of cases revenge porn will form only part of a number of crimes that the perpetrator is convicted of.

## Method

### Data collection

All cases involving individuals who committed acts of revenge porn were located using the internet. The majority of cases were taken from UK news websites. Searches were carried out over a period of four weeks to aid numbers. Over the collection period a total of 81 headlines involving a story about revenge porn were collected. To help ensure validity and consistency of reported facts,

author attempted to locate two articles for each case. In total, 68 cases were included that met the following criteria:

- The articles are written in English
- The case involved an act or threat that constituted revenge porn that was not disproven (i.e. the perpetrator was found guilty in a court of law)
- The offence was committed in the U.K.
- The offender had been sentenced (i.e. they were not awaiting sentencing).

Articles that did not meet these criteria were discarded during an initial screening phase.

**Procedure**

All cases used within this media analysis were located on internet websites. Before gathering of the cases an initial search was completed using internet search engines. This was to aid the author in understanding the scope of revenge porn cases reported in the media. Keywords such as '*revenge porn,* '*revenge pornography*' and '*person convicted of*' were used to search for cases. These made up an initial 81 headlines involving revenge porn found. Following this initial data collection, secondary articles were gathered by searching for the reported perpetrators name on search engines. Following removal of articles that did not fit the criteria, a total of 68 cases were used for this media analysis. Secondary articles were collected for 75% (n=51) of cases in order to gain further information, and also to calculate consistency of reported information between the articles. Table 15 shows where the articles were sourced from.

Table 15. List of Article Sources

| **Primary Article Sources (*n*=68)** | **Number of Cases Collected** |
|---|---|
| The Daily Mail Online | 19 |
| The Mirror online | 19 |

| | |
|---|---|
| BBC News Online | 9 |
| Hull Daily Mail | 3 |
| The Bath Chronicle | 2 |
| The Metro | 2 |
| The Guardian | 1 |
| Gazette Live | 1 |
| The Standard | 1 |
| The Telegraph | 1 |
| Birmingham Mail | 1 |
| Daily Post | 1 |
| Ipswich Star | 1 |
| Reading Chronicle | 1 |
| South Wales Evening Post | 1 |
| Somerset County Gazette | 1 |
| The Sun | 1 |
| Exeter Express and Echo | 1 |
| Voice Online | 1 |
| Dunstable Today | 1 |
| **Secondary Article Sources (*n*=51)** | |
| The Mirror | 11 |
| The Daily Mail Online | 5 |
| BBC News Online | 2 |
| Birmingham Mail | 5 |
| Manchester Evening News | 3 |
| The Sun | 2 |
| The Bristol Post | 2 |
| The Daily Star | 2 |
| The Standard | 2 |
| The Express | 1 |
| The Tab | 1 |

| | |
|---|---|
| The Grimsby Telegraph | 1 |
| The Coventry Telegraph | 1 |
| Plymouth Herald | 1 |
| Shropshire Star | 1 |
| Wimbledon Guardian | 1 |
| Standard Media | 1 |
| Wales Online | 1 |
| Inquisitr | 1 |
| The Independent | 1 |
| IB Times | 1 |
| Liverpool Echo | 1 |
| Hull Daily Mail | 1 |
| Daily Echo | 1 |
| The Metro | 1 |
| The Crown Prosecution Service Website | 1 |

The variables recorded fell into four main categories. These were "*Offender Characteristics*", "*Victim Characteristics*", "*Offence Characteristics*" and "*Sentence Characteristics*". See Table 16 for characteristics of offenders and victims of revenge porn.

**Analysis of findings**

All Data was input and analysed using SPSS Version 23, including reported demographics of perpetrators and victims, offence characteristics, and conviction characteristics.

In a number of cases there were few reported characteristics of the victim, potentially to protect identities. Some variables that were initially sought, were removed due to not being disclosed within the media articles. Variables removed were the "*ethnicity of victim/offender*", "*length of time that offending was carried out over*", and "*offence counts (number of charges)*", and "*offender purposely informed victim's family/friends of private sexual images of victim*". This left a total of 20 variables that were recorded.

Initially, frequencies of data were analysed to meet research aims. In capturing a range of characteristics, a clearer picture as to the mean demographics of victims, perpetrators and a clearer picture as to the sentences the perpetrators were being given. In addition, this initial analysis gave an insight into aggravating factors of cases of revenge pornography, as well as other offences the perpetrators were charged with alongside this.

Following the afore mentioned data screening, a Fisher's Exact analysis was conducted to explore associations between characteristics and to gauge any correlations. A Fisher's exact test is recommended when there is a small sample size (Field, 2014). Due to multiple analyses, Bonferroni corrections were used to increase robustness of tests, in an attempt to avoid type I errors. Bonferroni corrections make the rejection of the null hypothesis more secure (Coolican, 2004).

A Fisher's exact analysis was performed to ascertain whether there were any associations between variables between and sentence type. Data was concatenated and dichotomised to increase cell counts. The independent variable was '*Sentence type*' (dichotomised to custodial sentence yes/no).

Individual's that were reported as transgender within the media articles were recorded on SPSS as the gender they identified with.

One of the recorded variables identified whether the victim had been threatened with revenge porn before the act being carried out. On SPSS, the victim was recorded as being threatened prior to offence if the reports explicitly stated so. If not, the incident was recorded as "*carried out*" only.

## Results

Consistency of reporting was calculated for 10% of the cases that had secondary articles. Similarity was calculated to be 99.3%.

68 perpetrators recorded within this exploratory analysis had been convicted with threatening or carrying out of an act constituting revenge porn. All were convicted within the U.K. Details are provided below.

Table 16. Characteristics of offenders and victims of revenge porn

| Offender characteristics | Frequency % | N | Victim Characteristics | Frequency % | N |
|---|---|---|---|---|---|
| *1. Age* | | | *4. Age* | | |
| *2. Gender (Male)* | 85.3 | 68 | *5. Gender (Female)* | 91 | 67 |
| 3. *Ethnicity* | | | 6. *Ethnicity* | | |
| Offence Characteristics | | | Sentence Characteristics | | |
| *7. Intimate Partners (Yes)* | 88.7 | 62 | *21. Act the offender prosecuted under* | | |
| *8. Victim/Offender* | | | - *Revenge Porn* | 74.2 | 66 |
| *Relationship at time of* | | | - *Communications* | 6 | 66 |
| *offence* | | | - *Harassment* | 9.1 | 66 |
| *-Ex-Partners* | 81.7 | 60 | - *Sex Offences* | 1.5 | 66 |
| *9. Revenge Porn* | | | - *Blackmail* | 7.6 | 66 |
| *- Threatened* | 8.8 | 68 | | | |
| *- Carried Out* | 91.2 | 68 | *22. Sentence Type* | | |
| | | | - *Caution* | 0 | 68 |
| *10. Additional Offences* | 39.7 | 68 | - *Fine* | 5.9 | 68 |
| *recorded (yes)* | | | - *Community Order* | 22.1 | 68 |
| *11. Type of additional* | | | - *Suspended Sentence* | 27.9 | 68 |
| *offences* | | | - *Custodial Sentence* | 44.1 | 68 |
| *-Harassment* | 44.4 | 27 | | | |

| | | | | | |
|---|---|---|---|---|---|
| *- Blackmail* | 18.5 | 27 | *23. Compensation/Fine imposed (yes)* | 58.8 | 68 |
| *- Stalking* | 11.1 | 27 | *24. Additional Sanctions Imposed (yes)* | 69.1 | 68 |
| *- Assault* | 11.1 | 27 | *25. Type of Additional Sanctions* | | |
| *- Indecent Images of Children* | 3.7 | 27 | - *Restraining Order* | 55.3 | 47 |
| | | | - *Community Service (Unpaid Work)* | 2.1 | 47 |
| *-Breach of a restraining order* | 7.4 | 27 | - *Community Treatment* | 2.1 | 47 |
| *12. Financial Gain (yes)* | 7.4 | 68 | - *Supervision Order* | 2.1 | 47 |
| *Private Sexual Photographs shared by:* | | | - *Placed on Sex Offender Register* | 2.1 | 47 |
| | | | - *More than one additional sanction* | 36.2 | 47 |
| - *13. Social media* | 71 | 62 | | | |
| - *14. Messaging* | 17.7 | 62 | | | |
| - *15. Email* | 3 | 62 | | | |
| - *16. Website* | 14.5 | 62 | | | |
| - *17. Printed* | 3 | 62 | | | |
| *18. Length of time offence carried out over* | | | | | |
| *19. Offence Counts (number of charges)* | | | | | |
| *20. Perpetrator communicate images to victims' relatives.* | | | | | |

**Offender Demographics**

In this sample, 85.3% (n=58) of the offenders were male and 14.7% (n=10) of the offenders were female.

The age of the offender ranged from 18 to 53. The Mean age of the offenders reported in this media analysis is 31.2 years (SD 8.89). Two cases did not report the age of the offender.

**Victim Demographics**

67 cases reported the gender of the victim. One case did not report the gender of the victim. Of those reported, 9% *(n=6)* of the victims were male. 91% *(n=61)* of the victims were female.

In relation to the victim, 17 cases reported the age of the victim, 51 cases did not. The age of the victim ranged from 15 to 44 years. The mean age was 27.71 years.

**Relationship Characteristics**

Prior relationship details were posted for 62/68 cases. Of those reported, 88.7% *(n=55)* of the individuals within the cases were prior intimate partners. 11.3% *(n=7)* had not been physically intimate with each other prior to the offence taking place.

Eight cases did not report the relationship status of the offender and victim at the time of the offence. Of those that were reported, 81.70% *(n=49)* were ex-partners. 13.3% *(n=8)* were classified as 'other'. 'Other' included individuals that had been communicating by way of social media, or dating websites/applications. In addition to this, it included one case where the offender and victim arranged meeting for sexual purposes, and one case in which an individual's girlfriend sent explicit images of her boyfriend's mistress.

**Offence Characteristics**

Of the 68 cases within this media analysis, 91.2% *(n=62)* of offenders shared the private sexual images. 8.8% *(n=6)* threatened to share the images.

In 39.7% *(n=27)* of the cases there were additional offences reported. 60.3% *(n=41)* did not report any additional offences committed by the perpetrator in relation to the victim. Of these additional offences reported, 44.4% *(n=12)* related to harassment, 18.5% *(n=5)* related to blackmail, 11.1%*(n=3)* were related to stalking. 3.7% *(n=1)* of the additional offences were related to indecent images of children, 7.4% *(n=2)* for breach of a restraining order, and 11.1% *(n=3)* for assault.

7.4% of the cases *(n=5)* reported an additional motivation of financial gain. 92.6% of cases did not report additional financial gain.

Six cases did not report the method of image sharing. Of those that were reported, the 71% *(n=44)* were shared via social media (this included, Facebook, Instagram, Twitter and Snapchat). 14.5% *(n=9)* of the images were distributed via websites. These websites comprised of legitimate porn websites that you can upload images/videos onto, and dating service websites. 17.7% *(n=11)* of the images were shared via text messaging services including WhatsApp. Two cases reported sharing the images via email, and two cases reported the printing of the image in order to aid distribution.

**Sentencing Characteristics**

66 cases reported information regarding the laws that the perpetrators were prosecuted under. Of those reported, 74.2% (*n*=49) of the offenders were prosecuted under Revenge Porn laws. The remaining cases were prosecuted under laws surrounding harassment (9.1%, *n*=6), blackmail (7.6%, *n*=5), laws surrounding communications (6%, *n*=4), computer misuse (1.5%, *n*=1), and laws surrounding sex offences (1.5%, *n*=1).

68 of the cases reported the sentence type that the offender received. 5.9% (*n*=4) received a fine only, 22.1% (*n*=15) received a community order, 27.9% (*n*=19) received a suspended sentence, 44.1% (*n*=30) received a custodial sentence.

69.1% (*n*=47) of the offenders received additional sanctions. Of those additional sanctions, 55.3% (*n*=26) received a restraining order. 36.2% (*n*=17) received more than one additional sanction (including unpaid work, a requirement to attend a treatment programme, a supervision order, or required to sign the sex offenders register).

Results from Fisher's exact analyses indicate that there are no associations between variables and sentence type found (df=1, p=>0.05). Hence, the gender of the offender, prior intimate relationship, additional offences considered, financial gain and the law used to prosecute (e.g. revenge porn law) did not appear to be associated with the sentence being custodial or community.

## Discussion

This exploratory analysis has highlighted some of the characteristics surrounding offenders and victims of revenge porn. Furthermore, it has attempted to emphasise some of the offence characteristics, including method of image distribution, and the effects of sentencing.

As reported in the results, the majority of perpetrators are male, and the majority of victims of revenge porn were found to be female. The findings fall along a similar line to the Cyber Civil Rights (2013) findings that most victims are female. It is important to highlight that male victims may be less inclined to report such incidents and therefore this could potentially skew the data more so than otherwise. Certainly, gender differences in reporting of other crimes have been found, (for example, Pino and Meier, 1999), and so these findings may not reflect the true extent of victimisation in males. Pino and Meier (1999) suggest that males tend to not report being their own sexual victimisation when their masculine self-identity is jeopardised. It may be possible that due to revenge

porn being a crime with the intent of shaming a victim, that this may influence the likelihood of reporting in males. Therefore, further research is warranted to understand the victimisation within genders. In addition to the above, offenders were found to be older than victims, although awareness must be paid to the non-reporting of victim ages. The mean age of victims within this sample was 27.71 years, which falls within the range that the CCRI (2013) indicated as the individuals most victimised by this crime.

The majority of offenders had been in a relationship with the victims prior to the commission of revenge porn. However, a small percentage were not. This highlights that there are a number of cases in which the offender and victim were not in a prior relationship, and knew each other through dating websites or social media only. Whilst being in a prior sexual relationship appears to be the most likely scenario for revenge porn to occur, this media analysis has highlighted and aided in the understanding of the relationship characteristics in cases of revenge porn, and stress that not all revenge porn offenders are the ex-partner of the victim.

As indicated within this media analysis, some videos are shared on websites, including legal pornography websites. This could mean that individuals who visit these websites and watch these videos may be watching something that has not been consented to being distributed there by both parties. In addition, this dissemination may vastly increase the viewings of an individual who has been victimised by way of revenge porn. In order to reduce this re-victimisation by others it may be necessary to recommend that legitimate pornography websites carry out more stringent checks to ensure that consent is received from all individuals within the videos/images before publishing them on their websites. Such stringent checks could assist to eradicate this method of revenge porn distribution, but also prevent some of the effects of potential re-victimisation. In addition, more stringent checks may reduce the difficulty that victims may face in removing their intimate videos/photographs from the internet following discovery of their own victimisation. A similar notion is that an individual may be prosecuted under the law surrounding revenge porn; Section 33 of the Criminal Justice and Courts Act 2015 (CPS, 2015), if they have the intent to cause the individual depicted within the photograph/video a level of

distress. This means that if this image/video of an individual over the age of 18 were to be further shared and distributed, then the individual responsible would not be committing this offence unless the intent to cause distress was present. The CPS (2015) website highlights that anybody who were to further distribute an image because they believed it to be humorous would not be committing revenge porn. This may be considered of crucial importance when considering the victim impact, in terms of its psychological, social, financial effects (i.e. Bates, 2017; Franks, 2014; Cecil, 2014). Cecil (2014) points out can be long lasting because of the difficulty in removing the image from the internet once it has been uploaded. This is a potential pitfall within the law around revenge porn and allows the sharing of private sexual images without repercussions for the individual sharing the image. However, it is also necessary to highlight that individuals that further disseminate may be seemingly unaware as to how the image came to be on the internet, and the distress it may have caused. It is necessary to prevent further victimisation that this is considered in the future.

In addition to the method of sharing, the majority of images were shared via social media. This finding supports the hypothesis of the Director of public Prosecutions, Alison Saunders, who indicated the possibility of a rise in prosecutions being attributable to the increase in offences being committed on social media (CPS, 2016). It is possible that distribution via social media is the most popular simply because it is the most accessible by individuals. Certainly, given that currently 78% of individuals have a Facebook account (Statistica, 2016) this finding can be understood this way. However, an alternative hypothesis is linked specifically to the intent to cause distress when committing revenge porn. A main motivation for using social media is staying in contact (Utz, Muscanell, & Khalid, 2015). This indicates that people who use social media will be connected on various social media platforms with friends and family. It could be that perpetrators may purposefully choose to share the sexual images without consent via social media in order to cause maximum distress to the victim. In this circumstance, both the perpetrator and victim may consider it to be more psychologically harmful to the victim if people who they know view the sexual image than sharing it to a website where the people viewing the image may be unknown to the victim. Therefore, sharing the intimate image on social media may increase the potential for the victim's friends and family to be

exposed to the images. Sharing the images in such a manner could indicate a level of planning, and an active attempt to cause the victim high levels of distress which may indicate a higher culpability (Sentencing Council, 2018).

There were no factors included within this exploratory analysis were found to influence the type of sentence received. This is particularly interesting, as a Fisher's exact analyses indicated that those cases where additional offences were reported were no more likely to receive a custodial sentence that those cases where additional offences were not reported. It is possible that there are factors that influence the type of sentence that the perpetrator receives, and that it simply was not identified within this exploration. It may be necessary for future research to focus on aggravating variables, however, it may also implicate a something around sentencing guidelines. Currently, guidelines surrounding revenge porn law indicate the acts that the crime could be prosecuted under, and the requirements that enable these prosecutions to occur (CPS, 2015). However, sentencing for the act of sharing private sexual photographs is different depending upon which act an individual may be prosecuted under. For example, certain acts carry harsher sentencing guidelines. It is possible that this is an area for development and more thorough guidelines may aid a more consistent approach in cases of revenge porn.

Interestingly, of the six cases where revenge porn was threatened, the majority received a custodial sentence. This has highlighted some potential difference in the treatment of these two variables, with the threat of revenge porn being prosecuted under laws surrounding blackmail. This brings into question a potential that those being prosecuted under pre-existing acts may receive harsher sentencing for threatening the act than those prosecuted under the new legislation of revenge porn for carrying it out. This calls into question whether the existing law on revenge porn could be extended further to incorporate the threat of this.

Almost half of offenders that have been found guilty of distributing a private sexual image receive further orders in addition to their main sentence type, with the majority of these being restraining orders. Restraining orders can be imposed to "*protect the persons named in it from harassment or conduct that*

*will put them in fear of violence*" (CPS, 1997). The significant number of cases where a restraining order has been imposed as a further sanction suggests that a level of protection is afforded for victims where there is a fear that they may be at risk of further victimisation. Implementation of such, may help to reduce this chance and could act as an additional protection for the victim.

Within this media analysis, the missing data presented as an issue. As discussed above, some variables with a considerable amount of data missing was removed form analysis. This is an important factor to consider in the future. However, it is also important to consider that victim demographics may be something that will continue to be not reported within media when data gathering. In addition, there is the potential to capture more aggravating characteristics. For example, something that was reported in a small proportion of cases was whether or not the private sexual images were purposefully shared/sent by the offender to individuals known by the victim, such as family members. This was not reported in the majority of cases and so was removed, however, this does indicate that perhaps there are varying levels of intent to humiliate victims by the offenders. For example, perhaps those that purposely aim to share the images with victim family members and individuals known to the victim hold different levels of vengeance and intent to humiliate than others who share it to individuals not known to the victim. This may be worth further exploration.

With revenge porn recently being legislated for, it may be that journalists are more inclined to report on these cases as a result of public interest in this crime. Furthermore, there is a pressure to 'sell' newspapers and therefore headlines which may take the reader's attention may be more likely to be reported than stories which would not, hence notoriety and celebrity victims may be more likely to be reported. Moreover, as Hopkins, Kim and Kim (2017) highlight, the media needs to gather and maintain an audience and therefore may report on incidents that reflect the interests of their audience. As a result of this there may be a bias in the data within this analysis which may not be representative of the true extent or nature of revenge porn cases. Researchers have found that 65% of the public believe it is important for them to be informed about sentences on offenders who have committed crimes within their

area (Criminal Justice System, 2009) and media reports are a method of providing information to the public. Revenge porn is a new crime and therefore public interest in it may be high currently which may make the media more likely to report on these cases.

## Conclusion and Recommendations

It is important to remain aware throughout this media analysis that in all the included cases the offender has been found guilty. Therefore, this already represents a bias in the data due to this attempting to understand successful prosecutions. Naturally, this excludes individual cases that have not reached prior stages in the judicial process. Due to this potential attrition rate, there may be a wealth of variables that have not been captured that may influence the likelihood of the case being found guilty in a court of law. Such data may prove invaluable in understanding where the pitfalls are in revenge porn and how legislation may be improved to increase the likelihood of a successful prosecution. Therefore, it is suggested that further research focus on factors that may influence the outcome of a revenge porn case from the initial stages of reporting to a potential guilty verdict.

# CHAPTER 6

## Discussion

The aims of this thesis was to further findings in relation to the non-consensual sharing of sexual images. In order to do this, four separate pieces of research have been conducted, each exploring a different sub-section of this recently explored topic. The research has been conducted simultaneously, and has added to the current literature on this research area. Initially, a systematic review was completed to ascertain prevalence of victimisation and perpetration, and identify common characteristics of individuals who may be involved in this. A primary research study has culminated in the exploration of victim experiences of shame and levels of coping, and perpetrator characteristics including problem solving ability, impulsiveness and self-esteem. A critical analysis of a psychometric tool, The Social Problem Solving Inventory-Revised (D'Zurilla et al., 2002) has further aided understanding of its application to offending populations. Finally, through analysis of media articles, we have gained a further understanding of the non-consensual sharing of images in relation to understanding characteristics of the offence, offenders, and victims where this act has been proved beyond reasonable doubt in court. This area appears to be gaining researcher interest and this thesis has facilitated further understanding of this offence.

### Thesis findings

#### Systematic review.

The findings from the systematic review was that prevalence of the forwarding of sexual imagery without consent varies across populations. Exploration of the data indicated no correlation between year of publication and prevalence figures. This was interesting to explore because an increasing amount of effort may be being placed into educating individuals on the risks and dangers of self-produced sexual imagery and attempting to minimise the risk of images ending up in places they were not intended, such as being forwarded. Therefore, it is reasonable to expect that if this education was successful the prevalence rates would be shown to be decreasing. It is also possible that the forwarding of images is becoming increasingly prominent due to individuals

gaining increasing access to the internet (from 57% of households having internet access in 2006, to 90% in 2017; ONS, 2017). It may be the case that access to social media platforms are increasingly prominent and opportunities to share sexual images may arise more readily than without such access. The review also highlighted a large discrepancy in the rates of forwarding sexts across victimisation and perpetration. The difference in prevalence rates may be down to multiple reasons, including the definitions used within the studies, and the methods used to collect data, and the sample used. These variations meant that it was inappropriate to conduct a meta-analysis with the data. The majority of the studies used within the systematic review were on student samples, which may not be representative of the wider society. In addition, due to the recent exploration of this topic, many of the studies developed their own questionnaires to capture data due to a lack of standardised questionnaire. However, findings across the studies were fairly consistent in terms of gender of perpetrator (mostly male) and victim (predominantly female). The systematic review highlighted the paucity of knowledge with regards to the personal characteristics of individuals involved in the forwarding of sexual images and provided an opportunity to conduct further research surrounding this.

**Primary research study.**

A primary research study into the prevalence and characteristics of individuals who have shared sexual images of another without their consent, and who had been victimised by this was carried out. In total, 12.6% of individuals indicated that they had either been threatened with this or had an image shared of them and 4.9% indicated that they had shared an image of a former partner without their consent. Impulsivity has been found to have an association with the forwarding of sexual images without consent, as both scales that measured levels of impulsivity found higher levels of impulsivity in the experimental group when compared with the control group. This finding is also consistent with Pina et al's (2017) study which indicated that impulsivity is an important factor in the engagement of revenge pornography. In addition to the finding surrounding impulsivity, individuals who forwarded a sexual image of their partner/former partner without consent scored significantly higher on the positive problem orientation scale than controls. Initially, this finding was unexpected, however it

is possible that the findings are indicative of a subgroup of offenders whose motivation may be a controlled desire to inflict harm. This is consistent with literature surrounding typologies of perpetrators such as the 'narcissistic' and 'borderline' typology reported in domestic violent offender literature (i.e. Holtzworth-Munroe et al., 1994; Johnson et al., 1996). Therefore, whilst higher levels of impulsivity may be a factor within the forwarding of sexual images, a second typology/sub-group of offenders may have acted in a planned and considered manner as a means to inflict harm on the victim.

In relation to victimisation, 7.2% of participants had been threatened with the release of a private image/video and 5.4% stated that someone had shared a sexual image/video of them. This research study highlighted the effects that the sharing of sexual images can have on victims without their consent, as in many of the cases the victims contact details were left alongside the image. Individuals who have been threatened with the release of a private sexual image, as well as those who have had a sexual image shared experience similar levels of shame in relation to their experience. In addition to this, both those who have been threatened with the sharing of a sexual image, and those who have had a sexual image of them shared have engaged in various coping behaviours such as denial, self-blame, and seeking emotional support from others. This primary research study has further highlighted the distress that individuals may experience as a result of their victimisation and further supports findings from the few research studies that have explored this area (i.e. Bates, 2017) in that significant levels of psychological harm are associated with this crime.

**Psychometric critique.**

A paper to critically examine the properties of the SPSI-R (D'Zurilla et al., 2002) was completed (Bothamley & Tully, 2017). This is a popular psychometric tool that has been utilised with many different offending populations. Findings from this critique indicate the SPSI-R has many sound properties and is a useful tool to use within offending populations. It has good internal and test-retest reliability indicating its consistency across populations. The psychometric tool is rooted within problem solving theory and has been found to have sound

construct and content validity. It has good predictive validity for other variables including suicidality, helplessness, depression and anxiety. These factors may be considered as crucial factors to identify within forensic settings so that potential risks can be managed appropriately. It is important to develop normative data for offending populations as it may be difficult to apply to norms reported within the manual to forensic populations. The development of standardised norms in forensic settings is considered an area for future exploration. Furthermore, its face validity is an important consideration when using within forensic settings due to its potential for participants to respond by over or underinflating their answers. Therefore, a future suggestion, and one that is reported in the manual is to use a social desirability scale such as the Paulhus Deception Scale (Paulhus, 1998).

**Media Analysis.**

An analysis of articles where offenders were found guilty in court of sharing sexual images of another, the findings in relation of victim and offender gender were similar to other research. The majority of victims were female, and the majority of offenders were male. The age of the perpetrator was found to be slightly older than the victim (early thirties and late twenties, respectively). Furthermore, and similar to previous research many of the cases had been in a previous romantic relationship together (i.e. Deswani & Pearson, 2014), although it is important to note that this is not true for all victims; some had been communicating via online dating websites/social media without having been in a physically intimate relationship with each other.

The media analysis also highlighted that it appears that often in cases of sharing sexual imagery the threat and sharing of images often occurs alongside other crimes rather than as an isolated crime. This media analysis has highlighted that other offences associated with the non-consensual sharing include harassment, blackmail and stalking and intimidatory offences. In addition to this, the media analysis has highlighted the threat of sharing/releasing sexual images in addition to the actual sharing of sexual

images indicating that the threat of this action may be used to control and possibly extort the victims.

The media analysis also indicated that social media appears most popular way of sharing images and has the largest audience. Other sharing platforms included pornography websites and dating websites.

In relation to the sentences received, almost half reported in the papers received a custodial sentence. However, this is important to note that as mentioned above, other offences were taken into account which contributed towards custodial sentences. However, analysis of the data showed that additional offences did not influence sentencing. One reason for this is that there were a wealth aggravating or mitigating variables that were not reported within the media reports that may have influenced sentencing. It is important to consider that the media analysis identified cases where the offender had been found guilty and therefore this may not be wholly representative of the crime. It is also salient to note that prior to July 2018, and when this research took place, there were no guidelines on how to sentence cases of revenge pornography. Therefore, perhaps the lack of guidelines account for the lack of correlation between sentencing and other characteristics that the media analysis identified.

In July 2018 the Sentencing Council published the first guidelines in relation to the sentencing within cases of revenge pornography. Within the guidance, aggravating factors that may require harsher sentencing due to higher culpability have been highlighted. Three categories of culpability have been put forward; higher, medium, and lower. Higher culpability can be demonstrated by the intent to cause maximum distress, the images are widely circulated, significant planning has been implemented, and there have been repeated efforts to keep the images circulating. Lesser culpability reflects instances of disclosing private imagery with little to no planning, the offence was limited in duration, the offender may have a mental impairment (disorder or disability), and the offence was limited in duration (Sentencing Council, 2018). In addition to an assessment of culpability, the sentencing council has highlighted that the courts should also assess the level of harm to the victim, with three distinct categories representing limited distress to very serious distress caused to the

victim. This assessment of levels of harm is essential, as this thesis has highlighted that irrespective of whether the offence is carried out or threatened, victims do experience psychological harm, distress, shame and difficulties with coping. The determining of sentences will be reached according to the level of culpability and harm to victim. These guidelines will be used within the court system from 1st October 2018.

**Thesis implications**

Finally, the literature and research surrounding the non-consensual sharing of sexual images and revenge porn is small in comparison to crimes and offending behaviours that have been extensively researched. This thesis has added to the field of research in this area and the theoretical contribution of this thesis to the literature is outlined below. Firstly, this body of research contributes considerably to the understanding and identification of characteristics that perpetrators of this act possess, and the role of these within offending in this method. It also contributes to the understanding of the experiences of individuals who have been victimised by being threatened with, or having a sexual image of them shared.

Furthermore, this thesis has highlighted tentative links between some individuals who share sexual images of others to the literature and other areas of offending such as domestic violence. This is due to findings relating to positive problem solving and impulsivity in the primary research study, as well as findings from the media analysis that the sharing of sexual images has been found to occur concurrently with other offences including harassment, blackmail, and stalking (i.e. intimidatory offences). Findings from this thesis also indicate that the typologies of offenders whose motivations to offend in a relational context can be driven by a controlled effort to inflict harm or may be driven by impulsivity. This can be related to typologies of domestic violent offenders outlined by Holtzworth-Munroe and Stuart (1994). It may also be an extension of other offences whereby power and control may be a driver in the offending behaviour and the sharing sexual imagery or the threat of sharing sexual imagery may be a method in achieving this (Henry & Powell, 2015). However, there is a need for this research to be extended and those links explored further.

This thesis has provided a foundation upon which to build a further understanding of this area.

## Recommendations

In light of the findings within this thesis, it is important to give consideration to future avenues of research that could seek to extend the knowledge on this area. Firstly, it is important to explore preventative actions that could be taken to help minimise the likelihood of an individual sharing a sexual image of a third party without consent. In doing this, there may be fewer individual's victimised by this type of crime. Effectively reducing the occurrence and victims of this may be explored through education and perhaps effective campaigns shared via social media, certainly given that this thesis has found social media to be the most popular platform of sharing images. Related to this is the potential to explore mitigation of the risk of images being uploaded onto social media platforms, given the apparent ease of doing so, and the higher levels of impulsivity found in perpetrators of this crime. Feasibly preventing/reducing the risk of people sharing sexual images without consent is an important avenue of future research.

A further avenue of research is in relation to those who have had images shared of them, as well as those who have been threatened with the release of a sexual image. Consideration should be paid to those who have been threatened due to the potential for a continuous state of fear and arousal that the threat may become a reality and the image may be shared with others. This is particularly salient given that similar levels of shame and coping have been found in victims who have had an image shared and those who have been threatened. It is important that future research consider effective ways in supporting the victims.

In addition to the previous recommendations for research, another such recommendation involves the relationship between the victim and perpetrators of this crime. As findings have indicated that this crime is often committed in conjunction with other criminal acts, it may be important to consider the relationship dynamics between those involved. It may be that the sharing of

images may be a symptom of underlying experiences within the victim-perpetrator relationship and therefore exploring psychological components of relationships may be critical in the further understanding of this crime. An example of a measure that may be used to capture psychological components within a relationship, as well as the reasoning and negotiation skills used with relationships is The Revised Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy & Sugarman, 1996). The use of this scale may be able to tap into some of the relational dynamics and establish whether the sharing of non-consensual sexual images forms part of a wider pattern of issues within relationships. This may be particularly salient given that there are potentially different typologies of individuals who engage in this. For example, this current thesis has identified possibly two typologies; the impulsive individual, and the more controlled individual who attempts to solve problems in a planned and methodical measure. It is suggested that different relational characteristics may be associated with different typologies and future research may set to explore this. In this case, it could be that perpetrators who are more controlled and planned, may also be more controlling within relationships. Another measure that may prove useful for future research in this area may be the revised Controlling Behaviors Scale (CBS-R; Graham-Kevan & Archer, 2005) which has been validated in a U.K sample for measuring controlling behaviours within relationships (Sleath, Walker, & Tramontano, 2017). The CBS-R measures behaviours which may be considered coercive, intimidating, isolative, and threatening that may take place within a relationship. This psychometric tool may be a particularly salient and useful for future research, given that sentencing guidelines for non-consensual image fall under the umbrella of 'intimidatory offences' (Sentencing Council, 2018). These guidelines for intimidatory offences includes information regarding the sentencing of perpetrators for coercive and controlling behaviours within relationships.

Related to the above, and a scale that future researchers may want to employ when investigating perpetrators of non-consensual image sharing is the Paulhus Deception Scale (Paulhus, 1998). This psychometric assessment taps into aspects of narcissism and impression management. This may be important when researching the non-consensual sharing of images as it may help to identify how narcissism and impression management present within a relationship.

Furthermore, some subtypes of domestic violent offender have been linked to levels of impression management (Johnson et al., 2006). It may also help to identify the role narcissism may have in the forwarding of sexual images and revenge porn. This may be an avenue of research as a positive correlation has been found between narcissism and revenge (Rasmussen, 2015). It may also shed insight into perpetrators who forward images as a means of seeking revenge, and those whose motivations for forwarding may be very different. Personality traits such as narcissism may act as an internal disinhibitor to engaging in acts such as revenge porn due to the higher levels of entitlement that can be associated with it. Furthermore, narcissism has been found to be associated with behaviours such as sexual harassment (Zeigler-Hill, Besser, Morag, & Campbell, 2016) and revenge porn (Pina et al., 2017). Zeigler-Hill et al., (2016) report that narcissistic individuals may engage in sexual harassment after they have potentially been rejected, or when they feel they may risk being rejected. When relating this theory to revenge porn it could be that narcissistic individuals resort to revenge porn because they have felt rejected in some way, or as a method of controlling the partner within the relationship.
The use of the PDS may also support the reliability of other assessments/ psychometrics to detect whether respondents are answering in a socially desirable manner.

Finally, future research may want to explore how risk factors associated with intimate partner violence may relate to revenge porn. This may include factors such as jealousy, conflict, or underlying attitudes (i.e. towards women; given that majority of victims appear to be females, and perpetrators appear to be male).

## Conclusion

The sharing of images without consent is an important area of investigation. This thesis furthers our current knowledge of this area in terms if not only the frequency of occurrence, but has extrapolated some of the characteristics of those who may be involved. It has also highlighted the methods of disposal that have been utilised by the Crown Prosecution service in dealing with this offence, and other offences that may be associated with the

sharing of sexual images without consent. Whist this thesis has provided further avenues of interest; it has also highlighted the need for further research into this area.

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* Indicate studies reported systematic review.

**Indicate studies reported within Critique of the SPSI-R.

# Appendices

## Appendix A

Search Strategy for Systematic Review Databases

**Ovid: PsycINFO: All years – August 2017**

Search completed 10th August 2017.

| | Number of results |
|---|---|
| 1.exp pornography/ | 1829 |
| 2. porn*.mp. | 3037 |
| 3. Eroticism/ or erotic*.mp. | 5352 |
| 4. exp EROTICISM/ | 1319 |
| 5. exp imagery/ | 15408 |
| 6. exp PHOTOGRAPHS/ | 3062 |
| 7. (nud* or obscen*).mp. | 2172 |
| 8. (priv* or sex* or intim*).mp. | 454844 |
| 9. exp Text Messaging/ or exp Social Networks/ | 16408 |
| 10. exp Information Dissemination/ | 1458 |
| 11. exp INTERNET/ | 27104 |
| 12. exp Retaliation/ | 773 |
| 13. Revenge.mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures] | 1805 |
| 14. veng*.mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures] | 763 |
| 15. (reven* adj3 porn*).mp. | 10 |
| 16. exp Risk Factors/ or exp risk taking/ | 90190 |
| 17. exp Sexual Risk Taking/ | 7503 |
| 18. (sext* adj3 (mess* or text*)).mp. | 30 |
| 19. (forward* adj3 sext*).mp. | 1 |
| 20. sext*.mp. | 685 |
| 21. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 | 475379 |

| | |
|---|---|
| 22. 9 or 10 or 11 | 43027 |
| 23. 12 or 13 or 14 | 2724 |
| 24. 16 or 17 | 90190 |
| 25. 15 or 18 or 19 or 20 | 693 |
| 26. 21 and 25 | 693 |
| 27. 22 and 26 | 58 |
| 28. 25 or 26 or 27 | 693 |
| 29. exp CYBERBULLYING/ | 994 |
| 30. online victimi*.mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures] | 70 |
| 31. 29 or 30 | 1043 |
| 32. 21 and 30 | 31 |
| 33. 28 or 32 | 723 |

**Ovid: PsycARTICLES All years– August 2017**

Search completed 10th August 2017.

| | Number of Results |
|---|---|
| 1.exp pornography/ | 0 |
| 2. porn*.mp. | 631 |
| 3. Eroticism/ or erotic*.mp. | 1113 |
| 4. exp EROTICISM/ | 0 |
| 5. exp imagery/ | 0 |
| 6. exp PHOTOGRAPHS/ | 0 |
| 7. (nud* or obscen*).mp. | 1079 |
| 8. (priv* or sex* or intim*).mp. | 60289 |
| 9. exp Text Messaging/ or exp Social Networks/ | 0 |
| 10. exp Information Dissemination/ | 0 |
| 11. exp INTERNET/ | 0 |
| 12. exp Retaliation/ | 0 |
| 13. Revenge.mp. [mp=title, abstract, full text, caption text] | 988 |

| | |
|---|---|
| 14. veng*.mp. [mp=title, abstract, full text, caption text] | 468 |
| 15. (reven* adj3 porn*).mp. | 3 |
| 16. exp Risk Factors/ or exp risk taking/ | 0 |
| 17. exp Sexual Risk Taking/ | 0 |
| 18. (sext* adj3 (mess* or text*)).mp. | 9 |
| 19. (forward* adj3 sext*).mp. | 1 |
| 20. sext*.mp. | 758 |
| 21. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 | 60761 |
| 22. 9 or 10 or 11 | 0 |
| 23. 12 or 13 or 14 | 1296 |
| 24. 16 or 17 | 0 |
| 25. 15 or 18 or 19 or 20 | 761 |
| 26. 21 and 25 | 761 |
| 27. 22 and 26 | 0 |
| 28. 25 or 26 or 27 | 761 |
| 29. exp CYBERBULLYING/ | 0 |
| 30. online victimi*.mp. [mp=title, abstract, full text, caption text] | 16 |
| 31. 29 or 30 | 16 |
| 32. 21 and 30 | 16 |
| 33. 28 or 32 | 776 |

**Ovid: Medline 1975- August 2017**

Search completed 10th August 2017.

| | Number of Results |
|---|---|
| 1. exp Erotica/ | 1630 |
| 2. porn*.mp. | 1047 |
| 3. eroti*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, | 2981 |

| | |
|---|---|
| synonyms] | |
| 4. exp Photography/ | 531231 |
| 5. photo*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 601054 |
| 6. (nud* or obscen*).mp. | 77429 |
| 7. (priv* or sex* or intim*).mp. | 1114841 |
| 8. exp correspondence as topic/ or exp text messaging/ | 6158 |
| 9. exp Social Media/ or exp Social Networking/ | 5317 |
| 10. exp Information Dissemination/ | 14172 |
| 11. exp Internet/ | 66664 |
| 12. exp Aggression/ | 34527 |
| 13. (reven* or veng*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 9456 |
| 14. exp Risk Factors/ | 717586 |
| 15. exp Risk-Taking/ | 28260 |
| 16. exp Sexual Behavior/ | 97117 |
| 17. (rev* adj3 porn*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 19 |
| 18. (sext* adj3 (mess* or text*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 18 |
| 19. sext*.mp. | 5219 |
| 20. cyberbullying.mp. or exp Bullying/ | 2649 |

| | |
|---|---|
| 21. online victim*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 22 |
| 22. 1 or 2 or 3 or 4 or 5 or 6 or 7 | 2222580 |
| 23. 8 or 9 or 10 or 11 | 83871 |
| 24. 12 and 13 | 97 |
| 25. 14 or 15 or 16 | 818341 |
| 26. 17 or 18 or 19 | 5237 |
| 27. 20 or 21 | 2663 |
| 28. 22 and 23 | 8061 |
| 29. 24 or 26 | 5334 |
| 30. 25 and 29 | 191 |
| 31. 18 and 22 and 23 | 13 |
| 32. 30 or 31 | 195 |

**ProQuest: Applied Social Science Index and Abstracts (ASSIA). 1987-August 2017.**

Search completed 12th August 2017.

The following databases are automatically searched within ASSIA. These are: EconLit, IBSS (International bibliography of the Social Sciences), PILOTS Database, ERIC, CSA Worldwide Political Sciences Abstracts, CSA Sociological Abstracts, CSA Social Services Abstracts, CSA Linguistics and Language Behavior Abstracts

(porn* OR pornography OR erotic* OR image* OR photo* OR nud* OR obscene* OR priva* OR sex* OR intim*) AND (message OR text messages OR social media OR social networking OR internet) AND ("online bullying" OR "cyber bullying" OR revenge* OR veng*) OR ab("revenge porn" OR sext OR sexting OR "sext text" OR risk-taking)

Hits: 3,135

**Cochrane Library (1983- August 12th 2017)**

The Cochrane Library was searched using the "title abstract and keywords' search bar. Within this, six data faculties were included in the search: Trials, Methods studies, Technology Assessments, Economic Evaluations, Protocols, and the database of systematic reviews.

The following search terms were used: (Eroticism or Sex* imag* or Por* or Sext* or Revenge porn* or Sexual images) and (Social Media or Smart Phones or Communication or internet or Social networks) and (Behavio* or Risk taking or cyber bull* or victim*)

Hits: 134

**Appendix B**

Study Eligibility Assessment Form

First Author: Date: Country:

| **Inclusion Criteria** | **Criterion met?** | **Comment** |
|---|---|---|
| **Study Design**<br>Is the study:<br>a) Randomised Control Trial<br>b) Cohort Study<br>c) Case Control<br>d) Case Series | Yes<br>Unclear<br>Discuss<br>No | |
| **Population**<br>Does the population consist of individuals who have engaged in the forwarding on of sexual image/video of an individual without their consent? | Yes<br>Unclear<br>Discuss<br>No | |
| **Outcome**<br>Has behaviour, personality or attitudinal outcomes been measured?<br><br>OR | Yes<br>Unclear<br>Discuss<br>No | |
| Has prevalence/Frequency/Incidence been measured? | Yes<br>Unclear<br>Discuss<br>No | |

**Appendix C**

Explanations for Studies not included within Systematic Review

| Study Reference | Reason |
|---|---|
| Agustina, J. R., & Gomez-Duran, E. L. (2012). Sexting: Research criteria of a globalized social phenomenon. *Archives of Sexual Behavior*, *41*(6), 1325–1328. http://doi.org/http://dx.doi.org/10.1007/s10508-012-0038-0 | Emailed corresponding author. Author confirmed that the forwarding of images was not looked at therefore did not meet criteria. |
| Ahern, N. R., & Mechling, B. (2013). Sexting: Serious problems for youth. *Journal of Psychosocial Nursing and Mental Health Services*, *51*(7), 22–30. http://doi.org/http://dx.doi.org/10.3928/02793695-20130503-02 | Did not meet inclusion criteria – was a review of literature and discussion around implications for future. |
| Andar, S. (2015). The prevalence of college sexual assault among women in the digital media era: An online investigation of potential impacts from social networking, pornography, cyberbullying and sexting. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, *75*(9-A(E)), No–Specified. | Unclear therefore have requested more info and emailed author. Excluded on basis not enough information to apply PICO. |
| Anonymous. (2016a). Guide for staff concerned about children sexting. *Nursing Children and Young People*, *28*(8), 7. http://doi.org/https://dx.doi.org/10.7748/ncyp.28.8.7.s5 | Did not meet inclusion criteria |
| Anonymous. (2016b). NICE issues new guidelines on sexting. *Community Practitioner*, *89*(10), 7. | Did not meet inclusion criteria |
| Atwood, R. (2017). The relationship between adolescents' use of Internet-enabled mobile devices and engaging in problematic digital behaviors. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, *77*(9-A(E)), No–Specified. | Did not meet inclusion criteria – definition of sexting did not include the "forwarding of sexual images of others" |
| Barrense-Dias, Y., Berchtold, A., Suris, J.-C., & Akre, C. (2017). Sexting and the definition issue. *Journal of Adolescent Health*, No–Specified. http://doi.org/http://dx.doi.org/10.1016/j.jadohealth.2017.05.009 | This was a systematic review and therefore is commented on within the results of the paper but not included within findings. |

| | |
|---|---|
| Bates, S. (2017). Revenge porn and mental health: A qualitative analysis of the mental health effects of revenge porn on female survivors. *Feminist Criminology*, *12*(1), 22–42. http://doi.org/http://dx.doi.org/10.1177/1557085116654565 | Did not meet inclusion criteria – is qualitative with victims of revenge porn. |
| Bauermeister Jose Arturo; ORCID: http://orcid.org/0000-0002-9276-2306, J. A. A. I.-O. http://orcid. org/Bauermeiste. (2013). "Significant and non-significant associations between technology use and sexual risk: A need for more empirical attention": The author replies. *Journal of Adolescent Health*, *53*(1), 148–149. http://doi.org/http://dx.doi.org/10.1016/j.jadohealth.2013.04.017 | Did not meet inclusion criteria. This was an author reply to another paper. |
| Bauermeister, J. A., Yeagley, E., Meanley, S., & Pingel Jose A.; ORCID: http://orcid.org/0000-0002-9276-2306, E. S. A. I.-O. http://orcid. org/Bauermeiste. (2014). Sexting among young men who have sex with men: Results from a national survey. *Journal of Adolescent Health*, *54*(5), 606–611. http://doi.org/http://dx.doi.org/10.1016/j.jadohealth.2013.10.013 | Did not meet criteria. Definition of sexting used was "specifically as the transmittance of a sexually suggestive nude or nearly nude photo or video of either party (sending vs. receiving) via cell phones" (p.608) and therefore did not include the forwarding of sexts to third parties. |
| Baumgartner, S. E., Sumter, S. R., Peter, J., & Valkenburg, P. M. (2012). Identifying teens at risk: Developmental pathways of online and offline sexual risk behavior. *Pediatrics*, *130*(6), e1489–e1496. http://doi.org/http://dx.doi.org/10.1542/peds.2012-0842 | Did not meet inclusion criteria – the forwarding of sexual imagery/video to third parties without consent of individual in the image. |
| Baumgartner, S. E., Sumter, S. R., Peter, J., Valkenburg, P. M., & Livingstone Sindy R.; ORCID: http://orcid.org/0000-0002-8542-0148, S. A. I.-O. http://orcid. org/Sumte. (2014). Does country context matter? Investigating the predictors of teen sexting across Europe. *Computers in Human Behavior*, *34*, 157–164. http://doi.org/http://dx.doi.org/10.1016/j.chb.2014.01.041 | Excluded because within results there is no way to differentiate participants who had sent image of self or sent image of a third party. Question was whether |

| | |
|---|---|
| | participants "have sent or posted a sexual message (example: words, pictures or videos) of any kind on the internet in the past 12 months" (p.160). |
| Benotsch, E. G., Snipes, D. J., Martin, A. M., & Bull, S. S. (2013). Sexting, substance use, and sexual risk behavior in young adults. *Journal of Adolescent Health*, *52*(3), 307–313. http://doi.org/http://dx.doi.org/10.1016/j.jadohealth.2012.06.011 | Emailed author requesting more data to see if it meets inclusion criteria. Author replied and stated that they did not look at the forwarding of sexual images. |
| Benson, T. W. (2012). A scandal in academia: Sextext and CRTNET. *Western Journal of Communication*, *76*(1), 2–16. http://doi.org/http://dx.doi.org/10.1080/10570314.2012.637464 | Did not meet inclusion criteria. |
| Borrajo, E., & Gamez-Guadix, M. (2016). Cyber dating abuse: Its link to depression, anxiety and dyadic adjustment. *Abuso "Online" En El Noviazgo: Relacion Con Depresion, Ansiedad Y Ajuste Diadico.*, *24*(2), 221–235. | Written in Spanish – translation issues. |
| Brinkley, D. Y., Ackerman, R. A., Ehrenreich, S. E., & Underwood, M. K. (2017). Sending and receiving text messages with sexual content: Relations with early sexual activity and borderline personality features in late adolescence. *Computers in Human Behavior*, *70*, 119–130. http://doi.org/http://dx.doi.org/10.1016/j.chb.2016.12.082 | Did not meet inclusion criteria – was written sexts only. The review is about imagery/video content. |
| Brinkley, D. Y. (2015). Let's talk about sex: Sexting, early sexual activity, and borderline personality features in adolescents. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, *75*(11-B(E)), No–Specified. | Did not meet inclusion criteria. |
| Broaddus, M., & Dickson-Gomez, J. (2016). The Uses of Texting in Sexual Relationships scale: Associations with risky sexual behavior among at-risk African American emerging adults. *AIDS Education and Prevention*, *28*(5), 393–404. http://doi.org/http://dx.doi.org/10.1521/aeap.2016.28.5.393 | Did not meet criteria – did not ask about forwarding images of others. |

| | |
|---|---|
| Burkett, M. (2015). Sex(t) talk: A qualitative analysis of young adults' negotiations of the pleasures and perils of sexting. *Sexuality & Culture: An Interdisciplinary Quarterly*, *19*(4), 835–863. http://doi.org/http://dx.doi.org/10.1007/s12119-015-9295-0 | Did not meet inclusion criteria. This was a qualitative study and a brief part discussed victimisation. |
| Champion, A. R., & Pedersen, C. L. (2015). Investigating differences between sexters and non-sexters on attitudes, subjective norms, and risky sexual behaviours. *Canadian Journal of Human Sexuality*, *24*(3), 205–214. http://doi.org/http://dx.doi.org/10.3138/cjhs.243-A5 | Emailed corresponding author to request more data. Author replied and stated and study did not meet inclusion criteria. |
| Choi, H., Van Ouytsel, J., & Temple, J. R. (2016). Association between sexting and sexual coercion among female adolescents. *Journal of Adolescence*, *53*, 164–168. http://doi.org/http://dx.doi.org/10.1016/j.adolescence.2016.10.005 | Did not meet inclusion criteria – did not ask about the forwarding of sexual images. |
| Choi, J., Choi, O.-J., & Kim, J.-H. (2017). EFFECTS OF ADOLESCENT SMARTPHONE ADDICTION ON CYBERSEXUAL DELINQUENCY. *Social Behavior and Personality*, *45*(5), 819–832. http://doi.org/http://dx.doi.org/10.2224/sbp.5916 | Could not locate full text. Contacted author and requested from University of Nottingham. Library said it is not possible to gain a copy and therefore excluded on this basis. |
| Comartin, E., Kernsmith, R., & Kernsmith Poco; ORCID: http://orcid.org/0000-0002-5308-8566, P. A. I.-O. http://orcid. org/Kernsmit. (2013). "Sexting" and sex offender registration: Do age, gender, and sexual orientation matter? *Deviant Behavior*, *34*(1), 38–52. http://doi.org/http://dx.doi.org/10.1080/01639625.2012.707534 | Did not meet inclusion criteria. Looked at attitudes toward sexting with members of the public. |
| Cooper, K., Quayle, E., Jonsson, L., & Svedin, C. G. (2016). Adolescents and self-taken sexual images: A review of the literature. *Computers in Human Behavior*, *55*(Part B), 706–716. http://doi.org/http://dx.doi.org/10.1016/j.chb.2015.10.003 | Not included within data but commented on within discussion. |
| Currin, J. M., Jayne, C. N., Hammer, T. R., Brim, T., & Hubach Randolph D.; ORCID: http://orcid.org/0000-0001-9376-8075, R. D. A. I.-O. http://orcid. org/Hubac. (2016). Explicitly pressing send: Impact of sexting on relationship satisfaction. *American Journal of Family Therapy*, *44*(3), 143–154. | Did not meet criteria. Study identified unwanted but consensual sexting. |

| | |
|---|---|
| http://doi.org/http://dx.doi.org/10.1080/01926187.2016.1145086 | |
| Dake, J. A., Price, J. H., Maziarz, L., & Ward, B. (2012). Prevalence and correlates of sexting behavior in adolescents. *American Journal of Sexuality Education*, *7*(1), 1–15. http://doi.org/http://dx.doi.org/10.1080/15546128.2012.650959 | Emailed author. Does include but do not know how to differentiate between sent/received/forwarded so emailed for clarity. Replied – did not look at forwarding. |
| Davis, M. J., Powell, A., Gordon, D., & Kershaw, T. (2016). I want your sext: Sexting and sexual risk in emerging adult minority men. *AIDS Education and Prevention*, *28*(2), 138–152. http://doi.org/http://dx.doi.org/10.1521/aeap.2016.28.2.138 | Did not met criteria. No information on forwarding. |
| Delevi, R., & Weisskirch, R. S. (2013). Personality factors as predictors of sexting. *Computers in Human Behavior*, *29*(6), 2589–2594. http://doi.org/http://dx.doi.org/10.1016/j.chb.2013.06.003 | Did not meet criteria. Did not ask participants about forwarding images. |
| Diliberto, G. M., & Mattey, E. (2009). Sexting: Just how much of a danger is it and what can school nurses do about it?. *NASN School Nurse (Print)*, *24*(6), 262–267. http://doi.org/https://dx.doi.org/10.1177/1942602X09348652 | Did not meet criteria – was a report article not a research study. |
| Dir, A. L., & Cyders, M. A. (2015). Risks, risk factors, and outcomes associated with phone and Internet sexting among university students in the United States. *Archives of Sexual Behavior*, *44*(6), 1675–1684. http://doi.org/http://dx.doi.org/10.1007/s10508-014-0370-7 | Unclear and therefore have emailed author. Author stated data on consensual sexting only. |
| Dir, A. L., Coskunpinar, A., Steiner, J. L., & Cyders, M. A. (2013). Understanding differences in sexting behaviors across gender, relationship status, and sexual identity, and the role of expectancies in sexting. *Cyberpsychology, Behavior, and Social Networking*, *16*(8), 568–574. http://doi.org/http://dx.doi.org/10.1089/cyber.2012.0545 | Unclear and therefore have emailed author. Author stated data on consensual sexting only. |
| Dir, A. L., Cyders, M. A., & Coskunpinar, A. (2013). From the bar to the bed via mobile phone: A first test of the role of problematic alcohol use, sexting, and impulsivity-related traits in sexual hookups. *Computers in Human Behavior*, *29*(4), 1664–1670. http://doi.org/http://dx.doi.org/10.1016/j.chb.2013.01.039 | Unclear and therefore have emailed author. Author stated data on consensual sexting only. |
| Dir, A. L., Cyders, M. A., Mosher, C. E., Rand, K. L., & Hazer, J. (2012). Head of the Graduate Program Date, *9*. | Did not meet criteria |

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| Dir, A. L., Koo, C., & Cyders, M. A. (2013). Sexting: A new and emerging behavior of risk. *Psychology of Risk-Taking.*, 151–185. | Did not meet criteria. |
| Drouin, M., & Landgraff, C. (2012). Texting, sexting, and attachment in college students' romantic relationships. *Computers in Human Behavior*, *28*(2), 444–449. http://doi.org/http://dx.doi.org/10.1016/j.chb.2011.10.015 | Discussed sending/receiving messages between romantic partners. No forwarding. |
| Drouin, M., Ross, J., & Tobin, E. (2015). Sexting: A new, digital vehicle for intimate partner aggression? *Computers in Human Behavior*, *50*, 197–204. http://doi.org/http://dx.doi.org/10.1016/j.chb.2015.04.001 | Discussed unwanted but consensual sexting between partners. |
| Drouin, M., & Tobin, E. (2014). Unwanted but consensual sexting among young adults: Relations with attachment and sexual motivations. *Computers in Human Behavior*, *31*, 412–418. http://doi.org/http://dx.doi.org/10.1016/j.chb.2013.11.001 | Discussed unwanted but consensual sexting. |
| Drouin, M., Tobin, E., & Wygant, K. (2014). "Love the way you lie": Sexting deception in romantic relationships. *Computers in Human Behavior*, *35*, 542–547. http://doi.org/http://dx.doi.org/10.1016/j.chb.2014.02.047 | Study about sexting deception not the forwarding of images. |
| Englander PhD, E. K. (2016). SEXTING, REVENGE PORNOGRAPHY, AND DIGITAL DATING ABUSE: NEW RESEARCH ON ADOLESCENT DIGITAL BEHAVIORS. *Journal of the American Academy of Child and Adolescent Psychiatry*, *55*(10). | This is a presentation and therefore excluded. |
| Ferguson, C. J. (2011). Sexting behaviors among young Hispanic women: Incidence and association with other high-risk sexual behaviors. *Psychiatric Quarterly*, *82*(3), 239–243. http://doi.org/http://dx.doi.org/10.1007/s11126-010-9165-8 | Did not meet criteria. |
| Gamez-Guadix, M., de Santisteban, P., & Resett, S. (2017). Sexting among Spanish adolescents: Prevalence and personality profiles. *Psicothema*, *29*(1), 29–34. | Did not ask about forwarding images |
| Gillespie, A. A. (2015). "Trust me, it's only for me": "Revenge Porn" and the Criminal Law. *The Criminal Law Review*, (11), 866. | This is a review of legislation and therefore does not meet criteria. |
| Gordon-Messer, D., Bauermeister, J. A., Grodzinski, A., & Zimmerman Jose Arturo; ORCID: http://orcid.org/0000-0002-9276-2306, M. A. I.-O. http://orcid. org/Bauermeiste. (2013). Sexting among young adults. *Journal of Adolescent Health*, *52*(3), 301–306. http://doi.org/http://dx.doi.org/10.1016/j.jadohealth.2012.05.013 | Did not ask about forwarding. |

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| Gregg, D. (2017). Teen perceptions of cell phone and internet sexual messaging: Trends and predictors. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, *77*(12-A(E)), No–Specified. | Did not report on forwarding. |
| Hall, M., Williams, R. D., Ford, M. A., Cromeans, E. M., & Bergman, R. J. (2016). Hooking-up, religiosity, and sexting among college students. *Journal of Religion and Health*, No–Specified. http://doi.org/http://dx.doi.org/10.1007/s10943-016-0291-y | Did not report on forwarding |
| Hasinoff, A. A. (2013). Sexting as media production: Rethinking social media and sexuality. *New Media & Society*, *15*(4), 449–465. http://doi.org/http://dx.doi.org/10.1177/1461444812459171 | Did not meet criteria. |
| Henderson, L., & Morgan, E. (2009). Sexting and Sexual Relationships Among Teens and Young Adults. *Hispanic*, 31–39. | Did not report on the forwarding. |
| Holt PhD, M., Bowman EdD, C., & Koenig MS, B. (2016). 19.5 BULLYING AND OTHER VICTIMIZATION EXPOSURES: ASSOCIATIONS WITH FUNCTIONING AND DEVELOPMENTAL CONSIDERATIONS. *Journal of the American Academy of Child and Adolescent Psychiatry*, *55*(10). | Did not meet criteria |
| Houck, C. D., Barker, D., Rizzo, C., Hancock, E., Norton, A., & Brown, L. K. (2014). Sexting and sexual behavior in at-risk adolescents. *Pediatrics*, *133*(2), e276–e282. http://doi.org/http://dx.doi.org/10.1542/peds.2013-1157 | Did not include forwarding |
| Hudson, H. K., & Fetro, J. V. (2015). Sextual activity: Predictors of sexting behaviors and intentions to sext among selected undergraduate students. *Computers in Human Behavior*, *49*, 615–622. http://doi.org/http://dx.doi.org/10.1016/j.chb.2015.03.048 | Unclear and therefore have emailed author. Excluded on basis not enough info to apply PICO. |
| Jewell, J. A., & Brown, C. S. (2013). Sexting, catcalls, and butt slaps: How gender stereotypes and perceived group norms predict sexualized behavior. *Sex Roles*, *69*(11-12), 594–604. http://doi.org/http://dx.doi.org/10.1007/s11199-013-0320-1 | Did not meet criteria - No reference to forwarding within paper |
| Jonsson, L. S., Bladh, M., Priebe, G., & Svedin Linda S.; ORCID: http://orcid.org/0000-0002-8110-2855, C. G. A. I.-O. http://orcid. org/Jonsso. (2015). Online sexual behaviours among Swedish youth: Associations to background factors, behaviours and abuse. *European Child & Adolescent Psychiatry*, *24*(10), 1245–1260. http://doi.org/http://dx.doi.org/10.1007/s00787-015-0673-9 | Did not meet criteria. |

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| Judge, A. M., & Saleh, F. M. (2013). Sexting, cybersex, and internet use: The relationship between adolescent sexual behavior and electronic technologies. *Clinical Handbook of Adolescent Addiction.*, 377–389. Doi: 10.1002/9781118340851.ch38 | Did not meet criteria – review of evidence around internet/cyber addiction and behaviour |
| Kamal, M., & Newman, W. J. (2016). Revenge pornography: Mental health implications and related legislation. *Journal of the American Academy of Psychiatry and the Law*, *44*(3), 359–367. | Did not meet criteria. |
| Klettke, B., Hallford, D. J., & Mellor David J.; ORCID: http://orcid.org/0000-0003-1093-8345, Mellor, David J.; ORCID: http://orcid.org/0000-0001-5007-5906, D. J. A. I.-O. http://orcid. org/Hallfor. (2014). Sexting prevalence and correlates: A systematic literature review. *Clinical Psychology Review*, *34*(1), 44–53. http://doi.org/http://dx.doi.org/10.1016/j.cpr.2013.10.007 | This is a systematic review – already covered within introduction. |
| Korenis, P., & Billick, S. B. (2014). Forensic implications: Adolescent sexting and cyberbullying. *Psychiatric Quarterly*, *85*(1), 97–101. http://doi.org/http://dx.doi.org/10.1007/s11126-013-9277-z | Did not meet criteria. |
| Kosenko, K., Luurs, G., & Binder, A. R. (2017). Sexting and sexual behavior, 2011-2015: A critical review and meta-analysis of a growing literature. *Journal of Computer-Mediated Communication*, No–Specified. http://doi.org/http://dx.doi.org/10.1111/jcc4.12187 | Critical analysis and review. Did not comment on the forwarding of images. |
| Kowalski, R., Giumetti, G., Schroeder, A., & Lattanner, M. (2014). Bullying in the Digital Age: A Critical Review and Meta-Analysis of Cyberbullying Research Among Youth. *Psychol Bull*, *140*(4), 1073–1137. http://doi.org/10.1037/a0035618 | Did not meet criteria but did identify one further study from which I have emailed author for data (Mishna et al., 2012). |
| Levine, D. (2013). Sexting: A terrifying health risk ... or the new normal for young adults? *Journal of Adolescent Health*, *52*(3), 257–258. http://doi.org/http://dx.doi.org/10.1016/j.jadohealth.2013.01.003 | Editorial. Did not meet criteria. |
| Lister, M. (2017). A formulation of internet use within society and how it helps us understand acts such as "sexting" within youth. *Clinical Psychology Forum*, (293), 30. | Does not meet criteria. |
| Lorang, M. R., McNiel, D. E., & Binder, R. L. (2016). Minors and sexting: Legal implications. *Journal of the American Academy of Psychiatry and the Law*, *44*(1), 73–81. | A review article and therefore does not meet criteria. |
| Mattey, B., & Diliberto, G. M. (2013). Sexting--it's in the dictionary. *NASN School Nurse (Print)*, *28*(2), 94–98. | Did not meet criteria - a report |

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| | on sexting not a research study. |
| May, D. R. (2012). Sexting in Kansas schools. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, *72*(12-A), 4419. | Did not meet criteria. |
| McDaniel, B. T., & Drouin Brandon T.; ORCID: http://orcid.org/0000-0002-0743-0367, M. A. I.-O. http://orcid. org/McDanie. (2015). Sexting among married couples: Who is doing it, and are they more satisfied? *Cyberpsychology, Behavior, and Social Networking*, *18*(11), 628–634. http://doi.org/http://dx.doi.org/10.1089/cyber.2015.0334 | Does not meet criteria. |
| Morelli, M., Bianchi, D., Baiocco, R., Pezzuti, L., & Chirumbolo, A. (2017). Sexting behaviors and cyber pornography addiction among adolescents: The moderating role of alcohol consumption. *Sexuality Research & Social Policy: A Journal of the NSRC*, *14*(2), 113–121. http://doi.org/http://dx.doi.org/10.1007/s13178-016-0234-0 | Did not meet criteria |
| Parker, T. S., Blackburn, K. M., Perry, M. S., & Hawks, J. M. (2013). Sexting as an intervention: Relationship satisfaction and motivation considerations. *American Journal of Family Therapy*, *41*(1), 1–12. http://doi.org/http://dx.doi.org/10.1080/01926187.2011.635134 | Did not meet criteria |
| Renfrow, D. G., & Rollo, E. A. (2014). Sexting on campus: Minimizing perceived risks and neutralizing behaviors. *Deviant Behavior*, *35*(11), 903–920. http://doi.org/http://dx.doi.org/10.1080/01639625.2014.897122 | Did not meet criteria – qualitative. |
| Reyns, B. W., Henson, B., & Fisher, B. S. (2014). Digital deviance: Low self-control and opportunity as explanations of sexting among college students. *Sociological Spectrum*, *34*(3), 273–292. http://doi.org/http://dx.doi.org/10.1080/02732173.2014.895642 | Did not meet criteria - did not report on forwarding. |
| Rice, E., Craddock, J., Hemler, M., Rusow, J., Plant, A., Montoya, J., & Kordic, T. (2017). Associations between sexting behaviors and sexual behaviors among mobile phone-owning teens in los angeles. *Child Development*, No–Specified. http://doi.org/http://dx.doi.org/10.1111/cdev.12837 | Did not meet criteria – did not ask about the forwarding of images. |
| Rice, E., Gibbs, J., Winetrobe, H., Rhoades, H., Plant, A., Montoya, J., & Kordic, T. (2014). Sexting and sexual behavior among middle school students. *Pediatrics*, *134*(1), e21–e28. http://doi.org/http://dx.doi.org/10.1542/peds.2013-2991 | Did not meet criteria – did not ask about forwarding |

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| Rice, E., Rhoades, H., Winetrobe, H., Sanchez, M., Montoya, J., Plant, A., & Kordic, T. (2012). Sexually explicit cell phone messaging associated with sexual risk among adolescents. *Pediatrics*, *130*(4), 667–673. http://doi.org/http://dx.doi.org/10.1542/peds.2012-0021 | Did not meet criteria – did not ask about the forwarding of images. |
| Rice, S. L. (2016). Distributing Sexually Explicit Images: Teens, Text Messages, and Self-Esteem. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, *77*(2-B(E)), No–Specified. | Emailed author for full copy and requested from University of Nottingham. Excluded as not possible to obtain copy. |
| Ricketts, M. L., Maloney, C., Marcum, C. D., & Higgins, G. E. (2015). The effect of Internet related problems on the sexting behaviors of juveniles. *American Journal of Criminal Justice*, *40*(2), 270–284. http://doi.org/http://dx.doi.org/10.1007/s12103-014-9247-5 | Did not meet criteria – did not ask about forwarding. |
| Romo, D. L., Garnett, C., Younger, A. P., Stockwell, M. S., Soren, K., Catallozzi, M., & Neu, N. (2017). Social Media Use and its Association with Sexual Risk and Parental Monitoring among a Primarily Hispanic Adolescent Population. *Journal of Pediatric and Adolescent Gynecology*, *30*(4), 466–473. http://doi.org/https://dx.doi.org/10.1016/j.jpag.2017.02.004 | Did not meet criteria – did not ask about forwarding. |
| Rosenberg, J. (2014). Sexting is positively linked to sexual experience among middle school students. *Perspectives on Sexual and Reproductive Health*, *46*(4), 242–243. http://doi.org/http://dx.doi.org/10.1363/46241246_3 | Did not meet criteria after full review. |
| Sevcikova, A. (2016). Girls' and boys' experience with teen sexting in early and late adolescence. *Journal of Adolescence*, *51*, 156–162. http://doi.org/http://dx.doi.org/10.1016/j.adolescence.2016.06.007 | Did not specifically research forwarding and therefore no way to differentiate consensual from non-consensual sexting. |
| Silva, R. B. R., Teixeira, C. M., Vasconcelos-Raposo, J., & Bessa Jose; ORCID: http://orcid.org/0000-0002-3456-9727, M. A. I.-O. http://orcid. org/Vasconcelo.-R. (2016). Sexting: Adaptation of sexual behavior to modern technologies. *Computers in Human Behavior*, *64*, 747–753. http://doi.org/http://dx.doi.org/10.1016/j.chb.2016.07.036 | Definition used meant that data could not differentiate between senders receivers and sharers. |
| Samimi, P., & Alderson, K. G. (2014). Sexting among undergraduate students. *Computers in Human Behavior*, | Requested further data from authors |

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| *31*, 230–241. http://doi.org/http://dx.doi.org/10.1016/j.chb.2013.10.027 | and requested data. Received full dissertation. Dissertation did not report on data required and could not provide further assistance as author 1 had moved placements. |
| Sirianni, J. M. (2016). Bad romance: Exploring the factors that influence revenge porn sharing amongst romantic partners. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, *76*(7-A(E)), No–Specified. | Did not meet criteria – did not ask participants whether they had engaged in the forwarding but rather the factors that may influence their decision to engage in it. |
| Sleath, e and Walker, k. (n.d.). *Developing an evidence base in understanding and explaining revenge porn Dr . Emma Sleath and Dr . Kate Walker*. | This is a systematic review already commented on within discussion. Original articles that this review located were sourced. |
| Smiley, S. L., Elmasry, H., Hooper, M. W., Niaura, R. S., Hamilton, A. B., & Milburn, N. G. (2017). Feasibility of ecological momentary assessment of daily sexting and substance use among young adult African American gay and bisexual men: A pilot study. *Journal of Medical Internet Research*, *19*(2), No–Specified. | Did not meet criteria – not on forwarding of images. |
| Temple, J. R., & Choi, H. (2014). Longitudinal association between teen sexting and sexual behavior. *Pediatrics*, *134*(5), e1287–e1292. http://doi.org/http://dx.doi.org/10.1542/peds.2014-1974 | Did not meet criteria – does not ask about forwarding images. |
| Temple, J. R., Le, V. D., van den Berg, P., Ling, Y., Paul, J. A., & Temple, B. W. (2014). Brief report: Teen sexting and psychosocial health. *Journal of Adolescence*, *37*(1), 33–36. http://doi.org/http://dx.doi.org/10.1016/j.adolescence.2013.10.008 | Did not meet criteria – does not ask about forwarding images. |
| Temple PhD, J. R. (2016). 50.3 THE CO-OCCURRENCE OF SEXTING AND CYBER DATING ABUSE. *Journal of the American Academy of Child and Adolescent Psychiatry*, *55*(10). | This is a supplement and therefore excluded on that basis. Within it the article does not contain |

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| | details of forwarding images. |
| Temple, J. R., Paul, J. A., van den Berg, P., Le, V. D., McElhany, A., & Temple, B. W. (2012). Teen sexting and its association with sexual behaviors. *Archives of Pediatrics & Adolescent Medicine*, *166*(9), 828–833. http://doi.org/https://dx.doi.org/10.1001/archpediatrics.2012.835 | Did not meet criteria – does not ask about forwarding images. |
| Thomas, A. G., & Cauffman, E. (2014). YOUTH SEXTING AS CHILD PORNOGRAPHY? DEVELOPMENTAL SCIENCE SUPPORTS LESS HARSH SANCTIONS FOR JUVENILE SEXTERS. *New Criminal Law Review*, *17*(4), 631. | Did not meet criteria. |
| van Oosten, J. M. F., & Vandenbosch, L. (2017). Sexy online self-presentation on social network sites and the willingness to engage in sexting: A comparison of gender and age. *Journal of Adolescence*, *54*, 42–50. http://doi.org/http://dx.doi.org/10.1016/j.adolescence.2016.11.006 | Did not meet criteria - Does not ask about the forwarding of images |
| Van Ouytsel MSc, J. (2016). 50.1 CYBER DATING ABUSE: RESEARCH ON YOUNG PEOPLE'S MOTIVES AND THE ASSOCIATIONS OF THE BEHAVIOR IN FLANDERS, BELGIUM. *Journal of the American Academy of Child and Adolescent Psychiatry*, *55*(10). | This was a presentation excluded on this basis. |
| Van Ouytsel, J., Ponnet, K., & Walrave Koen; ORCID: http://orcid.org/0000-0002-6911-7632, M. A. I.-O. http://orcid. org/Ponne. (2014). The associations between adolescents' consumption of pornography and music videos and their sexting behavior. *Cyberpsychology, Behavior, and Social Networking*, *17*(12), 772–778. http://doi.org/http://dx.doi.org/10.1089/cyber.2014.0365 | Did not meet criteria – did not ask about the forwarding. |
| Van Ouytsel, J., Van Gool, E., Ponnet, K., & Walrave, M. (2014). Brief report: The association between adolescents' characteristics and engagement in sexting. *Journal of Adolescence*, *37*(8), 1387–1391. http://doi.org/http://dx.doi.org/10.1016/j.adolescence.2014.10.004 | Did not meet criteria – did not ask about forwarding images. |
| Van Ouytsel, J., Van Gool, E., Walrave, M., Ponnet, K., & Peeters, E. (2017). Sexting: Adolescents' perceptions of the applications used for, motives for, and consequences of sexting. *Journal of Youth Studies*, *20*(4), 446–470. http://dx.doi.org/10.1080/13676261.2016.1241865. | Excluded on the basis that it uses focus groups and therefore qualitative research. |
| Van Ouytsel, J., Walrave, M., Ponnet, K., & Heirman, W. (2015). The association between adolescent sexting, psychosocial difficulties, and risk behavior: Integrative review. *The Journal of School Nursing*, *31*(1), 54–69. http://doi.org/http://dx.doi.org/10.1177/1059840514541964 | This is a review and therefore not included within Systematic review. References were scanned and relevant research |

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| | included (though search strategy has picked up all relevant studies). |
| Vanden Abeele, M., Campbell, S. W., Eggermont, S., & Roe Steven; ORCID: http://orcid.org/0000-0003-0428-092X, K. A. I.-O. http://orcid. org/Eggermon. (2014). Sexting, mobile porn use, and peer group dynamics: Boys' and girls' self-perceived popularity, need for popularity, and perceived peer pressure. *Media Psychology*, *17*(1), 6–33. http://doi.org/http://dx.doi.org/10.1080/15213269.2013.801725 | Did not meet criteria - Did not ask about forwarding. |
| Vrselja, I., Pacadi, D., & Maricic, J. (2015). Relationship between sexting and sexual risk behavior and some psychosocial factors. *Odnos Sekstinga Sa Seksualno Rizicnim Ponasanjem I Nekim Psihosocijalnim Cimbenicima.*, *24*(3), 425–447. | Did not meet criteria |
| Walker, S., Sanci, L., & Temple-Smith Meredith; ORCID: http://orcid.org/0000-0003-1296-9591, M. A. I.-O. http://orcid. org/Templ.-S. (2013). Sexting: Young women's and men's views on its nature and origins. *Journal of Adolescent Health*, *52*(6), 697–701. http://doi.org/http://dx.doi.org/10.1016/j.jadohealth.2013.01.026 | Did not meet criteria |
| Walrave, M., Heirman, W., & Hallam, L. (2014). Under pressure to sext? Applying the theory of planned behaviour to adolescent sexting. *Behaviour & Information Technology*, *33*(1), 86–98. http://doi.org/http://dx.doi.org/10.1080/0144929X.2013.837099 | Did not meet criteria – did not ask about forwarding. |
| Weisskirch, R. S., & Delevi, R. (2011). "Sexting" and adult romantic attachment. *Computers in Human Behavior*, *27*(5), 1697–1701. http://doi.org/http://dx.doi.org/10.1016/j.chb.2011.02.008 | Did not meet criteria – did not ask about forwarding. |
| Weisskirch, R. S., Drouin, M., & Delevi, R. (2017). Relational anxiety and sexting. *Journal of Sex Research*, *54*(6), 685–693. http://doi.org/http://dx.doi.org/10.1080/00224499.2016.1181147 | Did not meet criteria – did not ask about forwarding images. |
| West, J. H., Lister, C. E., Hall, P. C., Crookston, B. T., Snow, P. R., Zvietcovich, M. E., & West, R. P. (2014). Sexting among Peruvian adolescents. *BMC Public Health*, *14*, 811. http://doi.org/https://dx.doi.org/10.1186/1471-2458-14-811 | Did not meet criteria – did not ask about forwarding images. |
| Wolfe, S. E., Marcum, C. D., Higgins, G. E., & Ricketts, M. L. (2016). Routine cell phone activity and exposure to sext messages: Extending the generality of routine | Did not meet criteria – did not |

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| activity theory and exploring the etiology of a risky teenage behavior. *Crime & Delinquency*, *62*(5), 614–644. http://doi.org/http://dx.doi.org/10.1177/0011128714541192 | ask about forwarding images. |
| Woolard, A. (2011). *The frequency, attitudes, and beliefs of sexting among college students. Masters Theses.* Paper 838. Retrieved from: http://thekeep.eiu.edu/theses/838. | Asked about attitudes towards forwarding and whether participants felt that the image would remain safe. |
| Wright, M. F. (2016). Cybervictims' emotional responses, attributions, and coping strategies for cyber victimization: a qualitative approach. *Safer Communities*, *15*(3), 160–169. | Did not meet criteria – hypothetical victim experiences. |
| Wright, P. J., & Donnerstein, E. (2014). Sex Online: Pornography, Sexual Solicitation, and Sexting. *Adolescent Medicine: State of the Art Reviews*, *25*(3), 574–589. | Requested full paper from University of Nottingham. Library replied that article was not available. Therefore, excluded on this basis. |
| Wysocki, D. K., & Childers, C. D. (2011). "Let my fingers do the talking": Sexting and infidelity in cyberspace. *Sexuality & Culture: An Interdisciplinary Quarterly*, *15*(3), 217–239. http://doi.org/http://dx.doi.org/10.1007/s12119-011-9091-4 | Did not meet criteria – involving infidelity. Did not ask about forwarding of images. |
| Ybarra, M. L., & Mitchell, K. J. (2015). "Sexting and its relation to sexual activity and sexual risk behavior in a national survey of adolescents": Erratum. *Journal of Adolescent Health*, *56*(4), 471. http://doi.org/http://dx.doi.org/10.1016/j.jadohealth.2015.01.016 | This was an erratum and therefore did not meet criteria. |
| Lee, C.-H., Moak, S., & Walker, J. T. (2016). Effects of self-control, social control, and social learning on sexting behavior among South Korean youths. *Youth & Society*, *48*(2), 242–264. http://doi.org/http://dx.doi.org/10.1177/0044118X13490762 | Did not meet criteria because it asked about taking photo of someone else (i.e. not self-produced). |
| Hudson, H. K. (2014). Behavioral Indicators and Behaviors Related to Sexting Among Undergraduate Students Behavioral Indicators and Behaviors Related to Sexting Among Undergraduate Students. | Did not ask about forwarding. |

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| *American Journal of Health Education*. Taylor & Francis. http://doi.org/10.1080/19325037.2014.901113 | |
| Lenhart, A. (2009). Teens and Sexting How and why minor teens are sending sexually part of teen life. | Did not include forwarding. |
| Staude-Muller, F., Hansen, B., & Voss, M. (2012). How stressful is online victimization? Effects of victim's personality and properties of the incident. European Journal of Developmental Psychology, 9(2), 260–274. http://doi.org/http://dx.doi.org/10.1080/17405629.2011.643170 | Did not specific sexual images and stated shared an "embarrassing" image therefore open to interpretation. Therefore, excluded on this basis. |
| Wolke, D., Lee, K., & Guy, A. (2017). Cyberbullying: a storm in a teacup? European Child & Adolescent Psychiatry, 26(8), 899–908. http://doi.org/http://dx.doi.org/10.1007/s00787-017-0954-6 | Did not special sexual image – only "embarrassing" or "private" and therefore excluded due to being open to interpretation. |
| Borrajo, E., Gámez-Guadix, M., & Calvete, E. (2015a). Cyber dating abuse: Prevalence, context and relationship with offline dating aggression. Psychological Reports: Relationships and Communications, 116, 565-585. doi:10.2466/21.16.PR0.116k22w4 | Did not specify sexual images (nude or semi-nude) and therefore open to interpretation. Excluded on this basis. |
| Further studies that may be relevant identified through full review of others:<br><br>Mishna, F., Khoury-Kassabri, M., Gadalla, T., & Daciuk, J. (2012). Risk factors for involvement in cyber bullying: Victims, bullies and bully– victims. *Children and Youth Services Review, 34,* 63–70. doi:10.1016/j .childyouth.2011.08.032 | Have emailed author for further data. Author confirmed did not meet criteria – did not ask about forwarding. |
| Borrajo, E., Gámez-Guadix, M., Pereda, N., & Calvete, E. (2015b). The development and validation of the cyber dating abuse questionnaire among young couple. *Computers in Human Behavior, 48*, 358-365. doi:10.1016/j.chb.2015.01.063 | This was a study for the validation of a measure and did not report on forwarding images. |
| Bianchi, D., Morelli, M., Baiocco, R., & Chirumbolo, A. (2016). Psychometric properties of the Sexting | Psychometric properties and |

| | |
|---|---|
| Motivations Questionnaire for adolescents and young adults. *Rassegna Di Psicologia*, *35*(3), 5–18. | therefore did not meet criteria. |
| Stanley, N., Barter, C., Wood, M., Aghtaie, N., Larkins, C., Lanau, A., & Överlien, C. (2016). Pornography, Sexual Coercion and Abuse and Sexting in Young People's Intimate Relationships: A European Study. *Journal of Interpersonal Violence*, 0886260516633204–. http://doi.org/10.1177/0886260516633204 | Did not report on prevalence, personality characteristics or attitudes of individuals who shared/had an image shared of them. Reported on the negative impact thus did not meet criteria. |

**Appendix D**

Pre-Defined Quality Assessment Forms (adapted from CASP 2013)

Form for general studies

| SCREENING QUESTIONS | | | | | |
|---|---|---|---|---|---|
| **Study Validity** | **Y** | **P** | **N** | **U** | **Comment** |
| Does the study address a clearly focused question?<br>Including:<br>- The aim of the study<br>- The population studied<br>- the outcomes considered | | | | | |
| Did the authors use an appropriate method to answer their question?<br>- Was this design appropriate? | | | | | |

Only if answered YES to both of the above questions continue.

| QUALITY CRITERIA | | | | | |
|---|---|---|---|---|---|
| **Inclusion and Selection Bias** | **Y** | **P** | **N** | **U** | **Comment** |
| Are the cases defined precisely? | | | | | |
| Was there an established reliable system for selecting all the cases? | | | | | |
| Was everyone included who should have been? | | | | | |
| Were a sufficient number of cases selected in order to make the results meaningful? | | | | | |
| **Performance Bias** | | | | | |
| Was the recruitment carried out in a consistent way? | | | | | |
| Was the percentage of respondents reported? | | | | | |
| **Measurement Bias** | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Was the definition of forwarding sexual images clearly defined? | | | | | |
| Did the authors use objective measures (if not measuring prevalence)? | | | | | |
| Do the measures truly reflect what they are supposed to be measuring?(Have they been validated?) | | | | | |
| Do the measures have good reliability? | | | | | |
| Were the outcome measurements the same for all the participants? | | | | | |
| If self-report is used is it complimented by other evidence? | | | | | |
| Is the time frame of the study relevant? | | | | | |
| **Attrition Bias** | | | | | |
| Were participant attrition rates accounted for at all stages? | | | | | |
| Were the reasons for drop reported? | | | | | |
| Were reasons for drop out similar? | | | | | |
| **The Results** | | | | | |
| Are the results believable? | | | | | |
| Were the main findings clearly explained? | | | | | |
| Were reasons for the findings considered? | | | | | |
| Was the analysis appropriate the to study design? | | | | | |
| Have the authors identified confounding variables? | | | | | |
| Is there any evidence of selective reporting of results? | | | | | |
| Do the results of the study fit with other available evidence? | | | | | |

| **ADDITIONAL QUESTIONS FOR CASE CONTROL** | | | | | |
|---|---|---|---|---|---|
| **Study Validity** | **Y** | **P** | **N** | **U** | **Comment** |

| | | | | | |
|---|---|---|---|---|---|
| Were the cases recruited in an appropriate way? | | | | | |
| Were the controls recruited in an appropriate way? | | | | | |
| Is the population clearly defined? | | | | | |
| Was exposure accurately measured (to minimise bias)? | | | | | |

| **ADDITIONAL QUESTIONS FOR COHORT** | | | | | |
|---|---|---|---|---|---|
| **Study Validity** | **Y** | **P** | **N** | **U** | **Comment** |
| Was the cohort recruited in an appropriate way? | | | | | |
| Was exposure accurately measured (to minimise bias)? | | | | | |
| Were the outcome measurement methods similar in the different groups (to reduce bias)? | | | | | |
| Was the follow up period specified? | | | | | |
| Was an acceptable proportion of the cohort followed up? (note the proportion of each group). | | | | | |

| **ADDITIONAL QUESTIONS FOR RANDOMISED CONTROL/CONTROLLED TRIALS** | | | | | |
|---|---|---|---|---|---|
| **Study Validity** | **Y** | **P** | **N** | **U** | **Comment** |
| Was the assignment to groups randomised? | | | | | |
| Was the allocation concealed from researchers? | | | | | |
| Were the groups treated equally? | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Were the groups similar at the start of the intervention? | | | | | |

Scoring:

Y (Yes)

P (Partial)

N (No)

Unclear = Attempt to contact author for further information.

**Appendix E**

Data Extraction Form

| General Information | |
|---|---|
| Date of Data Extraction | |
| Full Reference | |
| Source (i.e. Specify database) | |

| Re-verification of Study Eligibility (Tick if met) | | |
|---|---|---|
| Population | Outcome | Study Design |
| | | |

| Specific Information | |
|---|---|
| **Population Characteristics** | |
| Target Population(s) (Describe) | |
| Number of Participants at beginning and upon completion (NB: Rate of attrition and reason) | |
| Population (Inclusion/Exclusion Criteria) | |
| Recruitment Procedures and Participation Rates | |
| Characteristics of Population measured<br>- Age<br>- Gender<br>- Ethnicity<br>- Socio Economic Status | |
| **Outcome Measures and Characteristics** | |

| | |
|---|---|
| Was prevalence measured? | |
| IF YES<br>Indicate original participant number and then prevalence number (or percentages). | Original Participant Number<br><br>Target Participant Number |
| How was prevalence measured (i.e. what definition used) | |
| What were the outcome variables measured? | |
| What was/were the measurement tool(s)? | |
| Was/Were the tool(s) validated? How? | |
| How was data obtained? | |
| **Analysis** | |
| Statistics Used | |

| | |
|---|---|
| How was missing data dealt with? | |
| Did statistics make adjustments for confounding variables? How? | |
| Results and Findings (including statistical significance, Power and effect size) | |
| Identification of possible biases? (i.e. did study include all outcomes initially measured?) | |

| **Summary/Notes** | |
|---|---|
| Any other notes? Strengths/limitations? | |
| Author Contacted 1st Attempt (and date)?<br><br>Author Contacted 2nd Attempt? (and date)<br><br>Response Received? | Yes/No<br><br>Yes/No |

**Appendix F**

Overview of Study quality characteristics

| Author, year of publication & location | Analysed Sample size | Population | Age and gender | Measures | Quality |
|---|---|---|---|---|---|
| Phippen (2011) United Kingdom | 535 | School Children | 11-18 | Prevalence Self-developed questionnaire on sexting behaviours | Self-developed questionnaire on sexting behaviours.<br><br>Online survey disseminated through schools<br><br>Did not report attrition rate<br><br>Findings clearly explained through graphs. |
| AP-MTV (2009) USA | 1,247 | Members of the public. Randomly recruited via Random Digital Dial | 14-24 | Online victimisation Prevalence | Self-developed questionnaire<br><br>Participants recruited through telephone via random digit-dial (RDD)<br><br>Did not report attrition rates |

| | | | | | |
|---|---|---|---|---|---|
| Brenick, Flannery, & Rankin (2017) USA | 169 | University Students | 18-25 (M=20.7, SD=.96) 79.8% Female | Attachment Rejection Sensitivity Sexting experiences | Questionnaires all previously validated.<br><br>Participants Recruited via an online survey<br><br>Did not report attrition rates. |
| Crimmins, Seigfried-Spellar (2014) USA | 88 | Undergraduate students | Over 19 years old 61% Female | Risky Behaviours Sexting Relationships | Questionnaires were previously used or adapted from previous studies (i.e. National Campaign, 2008)<br><br>Participants recruited via an online survey<br><br>Reported attrition rates |
| Dir & Cyders (2015) USA | 255 | Undergraduate students | 18-45 (M=21.4, SD=4.18) 70.6% Female | Sexting Behaviours Impulsivity | Questionnaires all showed good levels of reliability and were previously validated with exception of 'sexting outcomes questionnaire' which |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | researchers designed for study.<br><br>Participants recruited via online survey<br><br>Did not report attrition rates. |
| Drouin, Vogel, Surbey, & still (2013)<br>USA | 253 | University Psychology students | 18-26 (M=19.47, SD 1.54)<br>58.5% Female | Sexting Behaviours<br>Motivations<br>Risks with sexting | Attrition rate partly explained.<br><br>Self-developed questionnaires<br><br>Online survey |
| Englander (2012)<br>USA | 617 | University students (Freshman) | 18 year olds | Sexting behaviours<br>Mental health (depression/anxiety/ substances/ Self-harm)<br>Victimisation | Paper does not indicate instruments used to capture data.<br><br>Does not report on attrition rates.<br><br>Findings explained clearly.<br><br>Does not state how survey was administered. |
| Fleschler Peskin, Markham, | 1,034 | School Students 10th Graders | 98% under 18 years old | Sexting behaviours | Attrition rates reported |

| | | | | | |
|---|---|---|---|---|---|
| Addy, Shegog, Thiel, Tortolero (2013)<br>USA | | (recruited during 7th grade for RCT) | (M=16.3 (SD=.68)<br>62.6% Female | | Questionnaires were previously used or adapted from previous studies (i.e. National Campaign, 2008)<br><br>Missing data clearly explained. Attrition explained<br><br>Audio assisted computer survey |
| Gámez-Guadix, Alemendros, Borrajo, Calvete (2015)<br>Spain | 873 | Spanish Adults | 18-60 (M=31.11, SD=9.58)<br>64% Female | Sexting behaviours<br>Online victimisation | Response rate/attrition explained.<br><br>Good reliability for self-developed scales.<br><br>Online questionnaire with dissemination methods explained. |
| Hudson, Fetro, & Ogletree (2014)<br>USA | 697 | Students | 58.5% participants were 18/19 year olds<br>50.2% females | Sexting behaviours<br>Questionnaire<br>Attitudes | Questionnaires were previously used from previous studies (i.e. National Campaign, 2008) demonstrating good reliability. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | Non-random convenience sample.<br><br>Paper questionnaire<br><br>Missing data explained |
| Makgale & Plattner (2017) Botswana | 309 | Undergraduate students | M=20.3<br>64.5% female | Sexting behaviours | Attrition rates explained.<br><br>Paper questionnaire.<br><br>Questionnaire items taken from previous researchers questionnaires on sexting. |
| Marganski & Melander (2015) USA | 540 | College students within a relationship over last 12 months | 18-25 (M=19.5), SD=1.6) | Cyber aggression conflict | Online survey<br><br>Good internal consistency for scales used. Some scales previously validated.<br><br>Analyses only on 540 explained but not missing data or attrition. |

| | | | | | |
|---|---|---|---|---|---|
| McCue (2016) USA | 167 | College students studying Criminal Justice | 18+ (M=22.35) 60% female | Sexting behaviours | Convenience samples<br><br>Self-developed questionnaire did not report internal consistency<br><br>Online survey<br><br>Explained response rate<br><br>Did not explain missing data |
| Mitchell, Finkelhor, Jones, & Wolak (2012) USA | 1,560 | Youth | 10-17 50% Female | Sexting behaviours | Telephone survey<br><br>National sample<br><br>Self-developed questionnaire – did not report internal consistency. |
| Morelli, Bianchi, Baiocco, Pezzuti, & Chirumbolo (2016a) Italy | 715 | Students and public. All participants in a romantic relationship | 13-30 (M=22.01) 71.7% Female | Sexting Behavior Scale (Dir, 2012)<br><br>Conflict in Adolescent Dating Relationships Inventory (Wolfe, Scott, Reitzel-Jaffe, Wekerle, Grasley, & Straatman, 2001) | Use questionnaires previously developed and validated.<br><br>Recruited participants via an online survey and paper survey. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | Ambivalent Sexism Inventory (Glick & Friske, 1996) | Did not report on attrition or missing data |
| Morelli, Bianchi, Baiocco, Pezzuti, & Chirumbolo (2016b) Italy | 1,334 | Adolescents and young adults | 13-30 (M=20.8, SD=4.3) 68% Females | Kinsey scale (sexual orinentation;Kinsey, 1948)<br><br>Modified version of the Sexting Behaviors Scale (Dir et al., 2012)<br><br>Conflict in Adolescent Dating Relationships Inventory (Wolfe et al., 2001)<br><br>General Health Questionnaire (Goldberg & Hillier, 1979) | Used previously developed and validated measures with good reliability reported.<br><br>Did not report on attrition or missing data.<br><br>Online survey |
| Perkins, Becker, Tehee, & Mackleprang (2014) USA | 287 | University students | 18-24 (M=18.97, SD=1.09) | Sexting behaviours Hostility Toward Women Scale (Check, 1985; Malamuth et al., 1995) Adversarial Heterosexual Beliefs Scale (Lonsway & Fitzgerald, 1995). | Some instruments previously validated and others not.<br><br>Missing data/attrition not explained<br><br>Online survey |

| | | | | | |
|---|---|---|---|---|---|
| Priebe & Svedin (2012) Sweden | 3,432 | Students (High school seniors) | 16-22 (M=18.3) 53.6% female | Questionnaire developed for study. 88 items on relationships, lifestyle, love and consensual sexual experiences, emotional sexual and physical abuse, sexually coercive behaviour, use of internet and mobile phones, problematic sexual meetings, selling sex, pornography, support seeking.<br>SCL-25 (psychiatric symptoms)<br><br>Rosenburg Self-Esteem Scale<br><br>Sense of Coherence Scale | Paper questionnaire<br><br>Did not report missing data/attrition<br><br>Used self-developed questionnaire and other validated tools. |
| Reed, Tolman, & Ward (2016) USA | 365 | College students | 17-22 (M=18.66) 57% female | Internet usage<br><br>Developed a 38 item measure of digital dating abuse<br><br>Conflict Tactics Scale 2 Short Form | Paper survey<br><br>Some attrition/data sample explained<br><br>Used self-developed questionnaire and |

| | | | | | |
|---|---|---|---|---|---|
| | | | | (Straus & Douglas, 2004)<br><br>PMI-S (modified version of the PMWI, Tolman, 1999) | other validated tools. |
| Eaton, Jacobs, Ruvalcaba (2017)<br>USA | 3,044 | Internet users | 18-97 (M=40.31, SD=19.02)<br>53.8% Female | | Online survey<br><br>Attrition rate not explained<br><br>Missing data information not explained.<br><br>Self-developed questionnaire for this study. |
| Wood, Barter, Stanley, Aghtaie, & Larkins (2015)<br>Europe | 4,564 (3,299 for analysis) | Young people who reported having been in a relationship (school students) | 14-17 (M=14.73 England-15.29 Italy) | Questionnaire on young people's experience interpersonal partner violence and abuse (IPVA; items based on previous studies, i.e. Barter et al., 2009 & Radford et al., 2011). | Paper survey and then interviews with 100 young people.<br><br>Self-developed study but based on previous questionnaires.<br><br>Attrition rate partly explained. |

| | | | | | |
|---|---|---|---|---|---|
| Stocker (2014) USA | 409 (366 completed) | Young Adults | 18-26 (M=22.3) 88.44% female | 54 item self-developed questionnaire on Sexting behaviours | Dissertation<br><br>Online survey<br><br>Self-developed questionnaire for this study.<br><br>Some mention of attrition/missing data. |
| Strassberg, McKKinnon, Sustaita, & Rullo (2013) USA | 606 | Private high school students | 32.2% freshmen, 18.4% sophomore, 24.9% juniors, 24.6% seniors. 45.87 female | Self-developed questionnaire sexting behaviours | Brief mention of attrition (i.e. parents declined participation)<br><br>Paper survey<br><br>Self-developed questionnaire |
| Strassberg, Cann, Velarde (2017) USA | 656 (analysis on 622) Follow up/ Comparison study on Strassberg et al., (2013) | Private High school students | Freshmen, sophomore, juniors, and seniors. 45.98% female | Self-developed questionnaire about sexting behaviours. | Attrition rates identified<br><br>Self-developed questionnaire.<br><br>Paper survey. |
| Strassberg, Rullo, & | 1,130 | Undergraduate students | 59.2% female | Self-developed questionnaire on | Self-developed questionnaire |

| | | | | | |
|---|---|---|---|---|---|
| Mackaronis (2014)<br>USA | | | | experiences of sexting whilst in high school. | Attrition rates not described.<br><br>Unclear survey method (i.e. paper/online) |
| Wolak, Finkelhor, & Mitchell (2012)<br>USA | Sample of 2,712 agencies. 1,029 cases within sample. Further interviews with 675 | Law enforcement agencies | No further demographics | Questions on youth produced sexual image cases handled by law enforcement agencies 2008/09. | Paper surveys then a telephone interview with representative sample.<br><br>Very thorough breakdown of attrition rate<br><br>Self-developed questionnaire used. |
| Woodward, Evans, & Brooks (2017)<br>USA | 548 | Rural high school students | M=15.9<br>SD1.24.<br>58.21% female | Behavioural, social and psychological correlates of sexting:<br>Depression<br>Self-esteem<br>Social skills<br>Alcohol and cannabis use<br>Bullying and victimisation<br>delinquency | Self-developed questionnaire used.<br><br>Paper survey<br><br>Attrition not reported. |
| Zemmels & Khey (2015)<br>USA | 108 | Undergraduate students | 18-27 (M=19.43) | Modified questions from Scale of Consumer Trust | Response rate reported. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | (Pan & Zinkhan, 2006)<br><br>Privacy related attitudes items drawn from Buchanan, Paine, Joinson, & Reips (2007)<br><br>Items from Identity Disclosure Scale (Stutzman, 2006).<br><br>Questions drawn from PEW Internet survey to measures sexting behaviours. | Missing data not reported.<br><br>Survey dissemination method not reported (i.e. online/paper).<br><br>Questionnaire based on previous questionnaires that have been modified. |
| Boulat, Caddaye, D'Souza, Glyde, Hatwal, Jansz, Stephens, & Zoppos (2012) Australia | 1,102 | | <10->26<br>49.9% participants aged 10-15.<br>60.67% females. | Developed a survey about sexting behaviours and attitudes | Self-developed questionnaire not tested.<br><br>Online survey<br><br>Attrition rates not reported |
| The National Campaign to Prevent Teen and Unplanned Pregnancy (2008) | 1,280 | Teen and young adults | 13-19 (N=653 teens)<br>20-26 (N=627) | | Online survey<br><br>Attrition not reported |

| | | | | | |
|---|---|---|---|---|---|
| USA | | | 627 young adults | | Response rates not reported.<br><br>Self-developed questionnaire. |
| Dick, McCauley, Jones, Tancredi, Goldstein, Blackburn, Monasterio, James, Silverman, & Miller (2014) USA | 1,008 | Youth (students) seeking care at school based health centers | 14-19<br>14/15 34.3%<br>16/17 56.1%<br>18/19 9.6%<br><br>76% female | 7 items adapted from Ybarra t al (2007) and Bennett et al., (2011) to measure cyber dating abuse and frequency<br><br>Item to measure request for sexual images<br><br>3 items from Conflict Tactics Scale-2 (Straus et al., 1996) and the Sexual Experiences Survey (Koss et al., 1985) to measure victimisation and sexual violence.<br><br>Single developed item to measure Pregnancy Risk<br><br>10 items to measure reproductive | Audio computer assisted survey<br><br>Attrition mentioned<br><br>Missing data described.<br><br>Some questionnaires used have previously been developed and validated. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | coercion (developed by investigative team and tested in previous clinic samples (Miller et al., 2010) | |
| Patrick, Heywood, Pitts, & Mitchell (2015) Australia | 2,114 | Secondary school students | Year 10 42.8%<br>Year 11 29.9%<br>Year 12 27.3%<br><br>61.6% females | Sexting behaviours (adapted from Lenhart, 2009 and Drouin & Landgraff, 2012)<br><br>Sexual attraction<br><br>Sexual experiences<br><br>Use of alcohol/marijuana | Participant given option of paper survey or online survey.<br><br>Attrition mentioned.<br><br>Survey adapted from previous surveys (Lenhart, 2009 & Drouin & Landgraff, 2012). |
| Thompson & Morrison (2013) USA | 1,472 (analysis on 571 who completed Wave 4 survey) | Male University students | 18.56 (SD=0.51) | 5 items measuring engagement in cyber based sexual behaviours (derived from Finkelhor, Mitchell & Wolak, 2000; Wolak, Mitchell & Finkelhor 2007, and Ybarra et al., 2007; National Campaign TO Prevent Teen and Unplanned | Attrition explained.<br><br>Paper survey<br><br>Questionnaire based on previous sexting questionnaires, good internal consistency. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | Pregnancy, 2008). Measure showed good internal consistency a=.77. | |

**Appendix G**

Data used to complete Spearman's Rank Correlation in systematic review.

Prevalence of forwarding/sharing images with third parties in student populations

| Reference | Prevalence findings |
|---|---|
| Drouin, Vogel, Surbey, & still (2013) | Perceived risk and real risk of forwarding images according to type of relationship.<br>Of subsample who indicated they had sent sexually explicit pictures: Feared forwarding: 26% committed partners; 53% casual sex partners; 46% cheating partners.<br>Did forward image: 3% committed partner; 15% casual sex partner' 21% cheating partner.<br><br>Casual sex partners and cheating 2 x likely to fear images being shared compared with those in committed relationships.<br><br>Casual sex partners 5 x likely to forward pictures. Cheating relationship's 7x likely to forward pictures partners sent them. |
| Fleschler Peskin, Markham, Addy, Shegog, Thiel, Tortolero (2013) | Overall sample: Shared Sexts originally meant for them: 8.8% (black female 7.6%, Hispanic female 6.4%, black male 12.6%, Hispanic male 11.4%)<br><br>Subsample of those who participated in sexting: of 126 participants 36.5% shared a semi-nude/nude image with a third party. |
| Hudson, Fetro, & Ogletree (2014) | "*shared a sexy message/picture/video with someone other than the one(s) originally meant*" – Overall sample: lifetime 35.2%; last 30 days 14.9%. |
| Makgale & Plattner (2017) | Among sexters, 30.2% had forwarded sexts to third parties. Those who had forwarded sexts were significantly more likely to be worried about theirs being forwarded ($\chi 2$ (1) = 32.1, p = .000) |
| McCue (2016) | Of sexters, 5% - sent it to someone who they did not have sexual interest in/relationship with.<br>8% forwarded it to potential boyfriend (sexual interest no relationship)<br>27% forwarded it to someone they were sexually and/or romantically involved with |

| | |
|---|---|
| | 5% contacted the person in the image/video.<br>0% put it on social media. |
| Perkins, Becker, Tehee, & Mackleprang (2014) | Of those who indicated they had engaged in sexting, 22% of participants have forwarded semi-nude sexts they have received. 20% reported forwarding nude sexts. |
| Wood, Barter, Stanley, Aghtaie, & Larkins (2015) | Of sexters, those who had "*shared an image you received from your partner*"<br>Bulgaria – female 18%; male 30% (significant difference X2(1) = 4.107, p < .05)<br>Cyprus – female <5; male 28%<br>England – female 13%; male 15%<br>Italy – female 12%; male 18%<br>Norway – female 11%; male 16% |
| Strassberg, McKKinnon, Sustaita, & Rullo (2013) | Of those who had received a sext, rates of forwarding:<br>Males – 27.2%<br>Females – 21.4% |
| Strassberg, Cann, Velarde (2017) | Amongst sext receivers, rates of forwarding sexually explicit cell phone pictures – males 12.2%; females 7.6%. |
| Strassberg, Rullo, & Mackaronis (2014) | Asked whether participants had forwarded image to at least one other person – 7.8% yes. Males 3x more likely to forward than females (12.3%; 4.7%). This is significant. v2 (1, N = 1053) = 20.48, p < .001.<br><br>Stated another way, of the 411 students reported receiving a sext, 18.7% forwarded the picture (males significantly more likely to have done so than females, 24.2%;13% x2 (1, N = 411) = 8.42, p < .005). |
| Woodward, Evans, & Brooks (2017) | Of sample, those who had forwarded nude messages – 7%. |
| Zemmels & Khey (2015) | Free text box: two respondents of total sample wrote that they received images forwarded from others (4.57%). |
| Reed, Tolman, & Ward (2016) | Perpetration (Women; men)<br>"*shared a sexually suggestive image of my partner(s)without permission"*<br>Ever: (1.1%;0.7%)<br>Past year: (0.5%;0.7%) |

| | |
|---|---|
| | *"Threatened to distribute an embarrassing/sexually suggestive image of my partner(s)"*<br>Ever: (0.5%'0.7%<br>Past Year: (0.5%;0.7%) |
| Patrick, Heywood, Pitts, & Mitchell (2015) | Of sexting participants - asked whether they had *"sent a sexually explicit nude or nearly nude photo/video of someone else"*<br>Male - 13.9%<br>Female - 5.3%<br>Total - 8.6% |
| Thompson & Morrison (2013) | Perpetration:<br>Participants asked whether they had "*shared a sexually suggestive message or picture with someone other than the person it was originally meant for".* – 16.3% of total participants yes. |
| Strohmaier, Murphy, & De Matteo (2014) | 26% of participants reported that as a minor they had forwarded/shared a sext with others. |

Prevalence of forwarding images to third parties in non student-only populations

| Reference | Findings |
|---|---|
| AP-MTV (2009) | 17% of sext recipients indicated they had further shared the image received. 55% of participants who had shared an image reported sharing it with more than 1 person. |
| Mitchell, Finkelhor, Jones, & Wolak (2012) | 3% of sample reported forwarding received images. |
| Morelli, Bianchi, Baiocco, Pezzuti, & Chirumbolo (2016b) | 12.59% of sexting participants reported that they had shared sexts about someone else without his/her consent on at least one occasions. |
| Eaton, Jacobs, Ruvalcaba (2017) | *Have you ever knowingly shared a sexually-explicit image or video of someone without his/her consent? 5.2% of sample* |

| | |
|---|---|
| | Gender perpetration: males 7.4%; females 3.4%. Men significantly more likely to report perpetration than females.<br><br>Ages 18-25 show highest levels of NCP perpetration (8.2% perpetration rate) |
| Stocker (2014) | *"Shown a nude or semi-nude picture that was sent to them of someone they knew to others when it was meant to be confidential" – 14% of participants who had received a sext said yes. 62% indicated this occurred 1-2 times.*<br>*95.83% indicated no malicious intent.*<br><br>*Asked if participants "had been sent a nude or semi-nude picture of someone they did not know and showed it to others when it was meant to remain private within the last year" – 6% yes. 81% stated it occurred 1-2 times. 81.82% indicated no malicious intent.*<br><br>*Gender: 10.69% females and 27.78% males showed a picture they received of someone they knew to others. Figures for showing a picture to others that they had received of someone they did not know was 11.11% of males, and 5.39% of females.*<br>Malicious intent:<br>Perpetration: "*within the last year…asked someone to send them a nude or semi-nude picture of themselves with the intent to share it with others*" – 1.80% yes. |
| Boulat, Caddaye, D'Souza, Glyde, Hatwal, Jansz, Stephens, & Zoppos (2012) | Perpetration: Forwarded a sext of any nature – 2.15% of total respondents. |

Prevalence of having images forwarded to third parties in student populations

| Reference | Prevalence Findings |
|---|---|

| | |
|---|---|
| Phippen (2011) | Incidence Estimate: Participants asked whether they are aware of any times where such a picture/ video was shared further than just the person it was sent to.<br>56% participants answered yes.<br>23% of participants (n=511) indicated an awareness that the images shared were to upset someone.<br>Results constrained to children who have had personal contact with sexting (n=202): 73% indicate an awareness that the images have been passed on to a third party. |
| Crimmins, Seigfried-Spellar (2014) | 11% (n=6) of sexters were aware a *semi-nude* photo/video had been shared with third parties without their consent.<br>7% (n=4) aware a *nude* photo/video had been shared without consent |
| Dir & Cyders (2015) | 42% of participants knew of a friend whose sexts had been sent to other people.<br>Of 175 participants reported sexting 12% reported their sext being forwarded by the recipient to others (friends and school). |
| Englander (2012) | 74% of participants who reported sexting indicated picture was not shown to third party (86% for non-pressured sexters, 64% for pressured sexters).<br><br>Participants reporting pressure to sext significantly more likely to report picture seen by 1 or 2 other people, or by 3 or more compared with non-pressured sexters (X2=632.31,p<.000).<br>13% of sexters reported problems with other children at school seeing the image(s). |
| Marganski & Melander (2015) | Of sample, asked whether partner "*sent others a private, intimate picture, or video that you shared with him or her without your permission*"? 6.3% indicated yes. |
| McCue (2016) | 3% of total sample participants stated an image had been shared of them. |
| Perkins, Becker, Tehee, & Mackleprang (2014) | Of sexters, 19% of participants reported having their semi-nude sexts forwarded and 12% reported having their nude images forwarded. |
| Priebe & Svedin (2012) | Participants asked in the past year have you "*found that others disseminated sexual pictures/films of you electronically or digitally*"?<br>Males: Heterosexual – 2.0%; sexual minority – 10.4% (5.7% 95% CI)<br><br>Female: Heterosexual – 1.5%; sexual minority - 3.3% (2.3% 95% CI) |

| | |
|---|---|
| | Total male sample (1,578) - 2.6%<br>Total female sample (1,827) – 1.7% |
| Wood, Barter, Stanley, Aghtaie, & Larkins (2015) | Of sexters, partner shared an image you sent<br>Bulgaria – females 9%; males; 12%<br>Cyprus – less than 5 (cell counts too low)<br>England – females 42%; males 13% (significant difference X2(1) = 22.135, p < .001)<br>Italy – female <5; male 9% (cell counts too low)<br>Norway – females 27%; males 12% (significant difference X2(1) = 4.827, p b .05) |
| Dick, McCauley, Jones, Tancredi, Goldstein, Blackburn, Monasterio, James, Silverman, & Miller (2014) | Cyber dating abuse perpetrated by a partner: *"posted or publicly shared a nude or seminude picture of you"*<br>Total sample – 1.5%<br>Male – 2.1%<br>Female – 1.3% |
| Reed, Tolman, & Ward (2016) | Victimisation (women; men)<br>*"shared a sexually suggestive image of me without permission"*<br>Total sample Ever: (1.6%;2.9%)<br>Total sample Past year: (1.6%;2.9%)<br><br>*"threatened to distribute an embarrassing/sexually suggestive image of me"*<br>Total sample Ever: (1.6%;1.5%)<br>Total sample Past year: 1.6%;1.5%) |
| Strohmaier, Murphy, & De Matteo (2014) | 11% reported having a sext that they sent forwarded/shared with others by intended receiver. |

Prevalence of having images forwarding to third parties in non student-only populations

| Reference | Prevalence |
|---|---|
| AP-MTV (2009) | 14% of sexting participants who had sexted believe the image was further shared. |

| | |
|---|---|
| Gámez-Guadix, Alemendros, Borrajo, Calvete (2015) | Of total sample: Prevalence of others "*disseminating or uploading to the internet photos or videos of you with erotic or sexual content without your consent*". Overall 1.1%, no significant difference between males (1.8%) or females (0.8%).<br>Age groups (no significant difference):<br>18-24 - 1.2%<br>25-34 - 1.5%<br>35-44 - 0.7%<br>45-60 0.0% |
| Eaton, Jacobs, Ruvalcaba (2017) | Victimisation in total sample:<br>*Has anyone ever shared or threatened to share a sexually-explicit image or video of you without your consent?* 12.8%<br>*Has anyone ever shared a sexually-explicit image or video of you without your consent?* 8%<br>*Has anyone ever threatened to share sexually-explicit image or video of you without your consent, without it ever being distributed?* 4.8%<br><br>Shared or been threatened: Males 9.3%; females 15.8%. Females significant more likely to have been victims of non-consensual pornography than men.<br><br>Shared: males: 6.6%; females 9.2%<br>Threatened: males 2.6%; females 6.6%.<br><br>Ages 34-41 report highest levels of NCP victimisation (12.4%). |
| Stocker (2014) | Non malicious intent in total sample<br>"*sent someone a nude or semi-nude picture of themselves in the last year...control lost and more people than intended saw it*" - 2.39% yes. Of those, 40% reported it happened 5-6 times, 20% reported it happened 3-4 times, and 40% reported it happened 1-2 times.<br>Gender: 7.58% females and 5.56% males had send picture of themselves where control was lost.<br><br>Malicious intent: |

| | |
|---|---|
| | Victimisation: *"in the last year someone had asked them to send them a nude or semi-nude picture of themselves…believed that the other person had the intent to hurt them by showing it to others"* – 9% yes (6.57% did then send the image). |

## Appendix H

Direct line/e-mail
+44 (0) 115 8232561
Louise.Sabir@nottingham.ac.uk

**Faculty of Medicine and Health Sciences**

Research Ethics Committee
School of Medicine Education Centre
B Floor, Medical School
Queen's Medical Centre Campus
Nottingham University Hospitals
Nottingham
NG7 2UH

14th July 2016

Sarah Louise Bothamley
Doctorate in Forensic Psychology Student
c/o Dr Ruth Tully
Consultant Forensic Psychologist/Associate Professor
Psychiatry and Applied Psychology, School of Medicine
Yang Fujia Building, Jubilee Campus
Wollaton Road
Nottingham
NG8 1BB

Dear Sarah

| | |
|---|---|
| **Ethics Reference No:** H14062016 DFP – **please always quote** | |
| **Study Title**: The motivations, explanations and effects of revenge pornography. | |
| **Chief Investigator/Supervisor:** Dr Ruth Tully, Consultant Forensic Psychologist/Associate Professor, Psychiatry and Applied Psychology, School of Medicine. | |
| **Lead Investigators/student**: Miss Sarah Louise Bothamley, Trainee Doctorate in Forensic Psychology Student, Psychiatry and Applied Psychology | |
| **Type of Study:** PG student, questionnaire | |
| **Proposed Start Date:** 1/7/2016 | **Proposed End Date:** 30/06/2017 12mths |
| **No of Subjects:** 210+ | **Age:** 16 years and over |

Thank you for your letter dated 13th July 2016 responding to the comments raised by the Committee and the following revised documents were received:

**Short Title: Revenge Porn**

- Research Ethics form final version 1.0, 01/02/2016
- Research Proposal Final version 1.0, 13/7/2016
- Appendix 1: Behaviour Filter page
- Appendix 2: Rosenburg Self Esteem Inventory
- Appendix 3: Barratt Impulsiveness Scale
- Appendix 4: Social Problem Solving Scale
- Appendix 5: Trauma Related Shame Inventory
- Appendix 6: Brief Cope Scale
- Appendix 7: Information Briefing Sheet
- Appendix 8. Consent Form
- Appendix 9: Demographics
- Appendix 10: Debriefing Sheet
- Appendix 11: Advert to be placed alongside link to survey
- Appendix 12: Letter to send to local colleges
- Appendix 13: Poster inviting participants with link to survey

These have been reviewed and are satisfactory and the study is approved.

Approval is given on the understanding that the conditions set out below are followed:

The University of Nottingham

1. You must follow the protocol agreed and inform the Committee of any changes using a notification of amendment form (please request a form).

2. You must notify the Chair of any serious or unexpected event.

3. This study is approved for the period of active recruitment requested. The Committee also provides a further 5 year approval for any necessary work to be performed on the study which may arise in the process of publication and peer review.

4. An End of Project Progress Report is completed and returned when the study has finished (Please request a form).

Yours sincerely



**Professor Ravi Mahajan**
**Chair, Faculty of Medicine & Health Sciences Research Ethics Committee**

**Appendix I**

The University of Nottingham
UNITED KINGDOM • CHINA • MALAYSIA

# PARTICIPANTS NEEDED

for a study looking at

# REVENGE PORNOGRAPHY

I am a second year doctoral student and would appreciate it if you could spare 15 minutes to fill in the survey.

The topic is around **Revenge Pornography** and engagement in **elements of this behaviour**. You do not have to have been directly affected by Revenge Pornography, the research is interested in both experiences and attitudes towards revenge pornography.

- Responses are completely anonymous.
- Over 16's only.

If you would like to participate please tear off a slip below and enter the link in your search bar.

Researcher: Sarah Bothamley Doctoral Student in Forensic Psychologist, Year 2
Email Address: msxslb@nottingham.ac.uk
Supervisor: Dr Ruth Tully, Consultant Forensic Psychologist and Assistant Professor
Email Address: Ruth.Tully@nottingham.ac.uk

**Appendix J**

Letter to send to local colleges

Dear Sirs,

My name is Sarah Bothamley and I am a student at the University of Nottingham, studying for a Doctorate in Forensic Psychology. I am in my second year and as such I am carrying out my thesis research project on Revenge Pornography. This doctoral project is being supervised by Dr Ruth Tully, Consultant Forensic Psychologist and Associate Professor.

Revenge pornography, is where a person shares private photos of a sexual nature, with the intent of causing the individual appearing in the photo/video distress and or humiliation. The person may have been a past partner of the victim, although this may not always be the case. Revenge pornography includes the sharing of these images on platforms including the internet, texting, printing, and mobile phone sharing applications.

The aim of my research is to try to find out more about the above behaviour and the attitudes held by individuals around revenge porn. This would take place in the form of an online questionnaire for individuals aged 16 and over and will take approximately 15 minutes to fill in.

**Why are you being contacted?**

In this day and age many individuals and young adults spend a significant amount of time using social media, including FaceBook, Twitter, Instagram, as well as Applications available on their smartphones such as WhatsApp and Snapchat.

The reason I am contacting you is because I am trying to gather a range of participants and make this research as inclusive as I can. This would include college students aged 16 and over, because they are able to legally give consent without parental consent required.

**Why might it be useful for your students?**

When following the link, there is an initial thorough information sheet which will brief all participants on the content and nature of the study. Following the completion of the questionnaire there is a debriefing page. This will provide further information about revenge porn, and highlight websites where participants can gain more information if they feel they have been affected by revenge pornography. This may be particularly important in terms of college policies that tackle and highlight safe usage of the internet by students. Moreover, there is the potential that by taking part in this research, students may learn of the effects that sharing photographs with others can have on individuals. The debrief page has links to various information formats that highlight what you can do if you feel you have been affected by revenge porn, as well as promoting information on staying safe within the context of a relationship.

In line with college policies that tackle cyber bullying, and safeguarding policies, this may help to educate students on the dangers of engaging in this behaviour, and help students to help keep themselves safe.

**What is required?**

I would appreciate it if you would consider printing and disseminating the attached poster, which provide a link to the online questionnaire, so that anyone aged 16 and over can decide whether to take part or not in the research. All responses are anonymous and individuals will not be identifiable.

This might include putting it up on some notice boards around the college where students will be able to view it. If you would prefer to send it electronically then I have attached the poster with the link that you could forward to students.

https://nottingham.onlinesurveys.ac.uk/doctoral-thesis-revenge-porn-characteristics

Alternatively, I am more than willing to provide you with the printed posters (please let me know how many you would like) or attend in person to place them around the college myself, should this be required.

**Ethical Approval**

This research has been approved by the Faculty of Medicine and Health Sciences Ethics Committee at the University of Nottingham.

Should you have any queries please contact the researcher using the details below.

Researcher: Sarah Bothamley.  Doctoral Forensic Psychologist in Training.

Researcher's email address: msxslb@nottingham.ac.uk

Supervisor email address: Ruth.Tully@nottingham.ac.uk

Thank you for your time.

Kind Regards,

Miss Sarah Bothamley

**Appendix K**

Copy of the items in the Rosenburg Self Esteem Scale (Rosenburg, 1965).



Strongly Agree Agree Disagree Strongly Disagree

1. I feel that I am a person of worth, at least on equal plane with others
2. I feel that I have a number of good qualities
3. All in all, I am inclined to feel that I am a failure.
4. I am able to do most things as well as most other people.
5. I feel I do not have much to be proud of
6. I take a positive attitude toward myself
7. On the whole I am satisfied with myself
8. I wish I could have more respect for myself
9. I certainly feel useless at times
10. At times I think I am no good at all.

## Appendix L

Copy of the items in The Barratt Impulsiveness Scale - 11 (BIS-11, Patton et al., 1995).

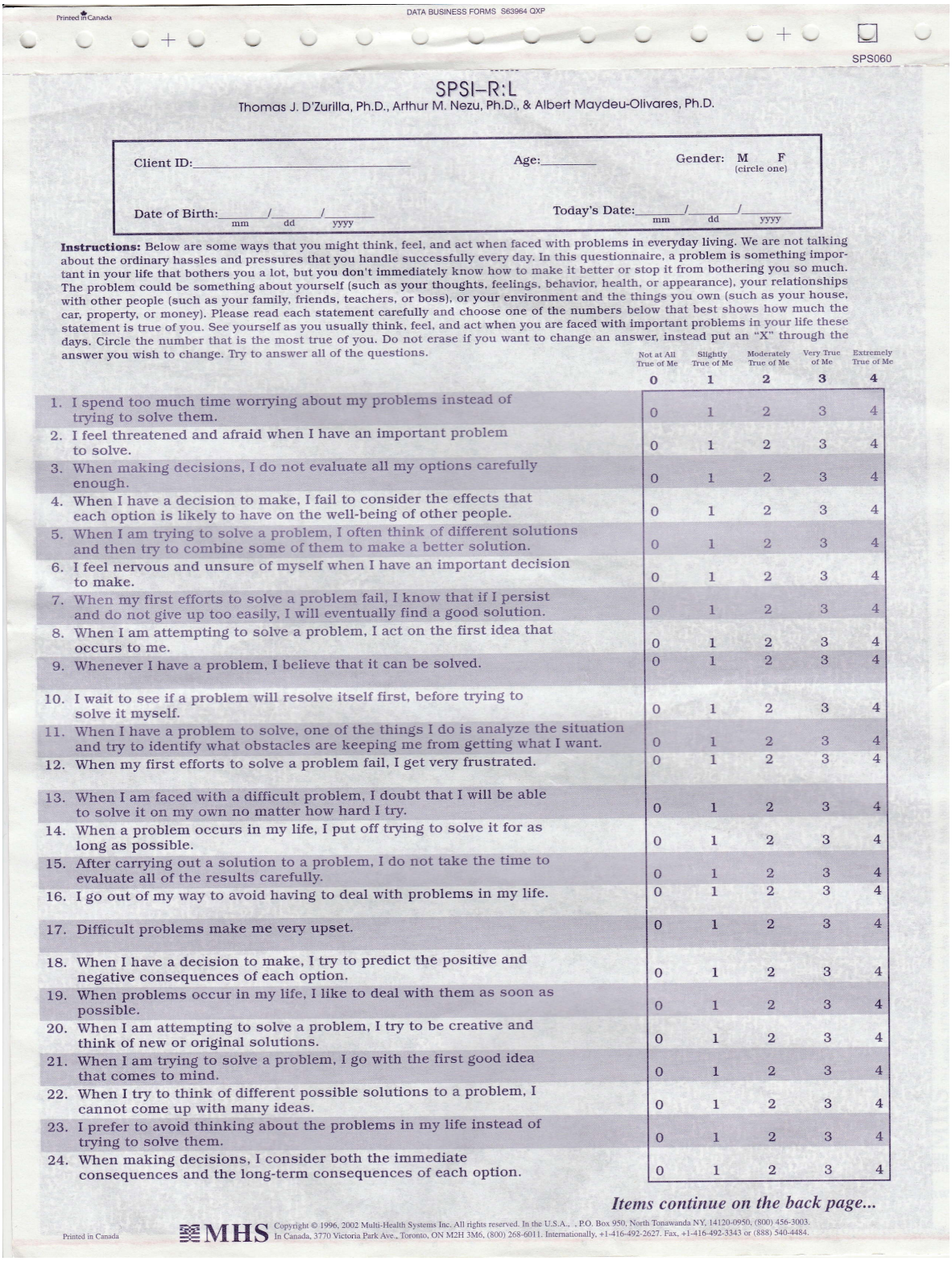
DIRECTIONS: People differ in the ways they act and think in different situations. This is a test to measure some of the ways in which you act and think. Read each statement and put an X on the appropriate circle on the right side of this page. Do not spend too much time on any statement. Answer quickly and honestly.

| | ① Rarely/Never | ② Occasionally | ③ Often | ④ Almost Always/Always |
|---|---|---|---|---|
| 1 | I plan tasks carefully. | | | ① ② ③ ④ |
| 2 | I do things without thinking. | | | ① ② ③ ④ |
| 3 | I make-up my mind quickly. | | | ① ② ③ ④ |
| 4 | I am happy-go-lucky. | | | ① ② ③ ④ |
| 5 | I don't "pay attention." | | | ① ② ③ ④ |
| 6 | I have "racing" thoughts. | | | ① ② ③ ④ |
| 7 | I plan trips well ahead of time. | | | ① ② ③ ④ |
| 8 | I am self controlled. | | | ① ② ③ ④ |
| 9 | I concentrate easily. | | | ① ② ③ ④ |
| 10 | I save regularly. | | | ① ② ③ ④ |
| 11 | I "squirm" at plays or lectures. | | | ① ② ③ ④ |
| 12 | I am a careful thinker. | | | ① ② ③ ④ |
| 13 | I plan for job security. | | | ① ② ③ ④ |
| 14 | I say things without thinking. | | | ① ② ③ ④ |
| 15 | I like to think about complex problems. | | | ① ② ③ ④ |
| 16 | I change jobs. | | | ① ② ③ ④ |
| 17 | I act "on impulse." | | | ① ② ③ ④ |
| 18 | I get easily bored when solving thought problems. | | | ① ② ③ ④ |
| 19 | I act on the spur of the moment. | | | ① ② ③ ④ |
| 20 | I am a steady thinker. | | | ① ② ③ ④ |
| 21 | I change residences. | | | ① ② ③ ④ |
| 22 | I buy things on impulse. | | | ① ② ③ ④ |
| 23 | I can only think about one thing at a time. | | | ① ② ③ ④ |
| 24 | I change hobbies. | | | ① ② ③ ④ |
| 25 | I spend or charge more than I earn. | | | ① ② ③ ④ |
| 26 | I often have extraneous thoughts when thinking. | | | ① ② ③ ④ |
| 27 | I am more interested in the present than the future. | | | ① ② ③ ④ |
| 28 | I am restless at the theater or lectures. | | | ① ② ③ ④ |
| 29 | I like puzzles. | | | ① ② ③ ④ |
| 30 | I am future oriented. | | | ① ② ③ ④ |

Patton, Stanford, Barratt (1995). *J Clin Psy*, vol. 51, pp. 768-774

## Appendix M

Copy of the items in the Social Problem Solving Scale Revised (SPSI-R: Long Version, D'Zurilla et al., 2002).



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SPS060

SPSI–R:L

Thomas J. D'Zurilla, Ph.D., Arthur M. Nezu, Ph.D., & Albert Maydeu-Olivares, Ph.D.

Client ID:_____ Age:_____ Gender: M F (circle one)

Date of Birth:_____/_____/_____ (mm dd yyyy) Today's Date:_____/_____/_____ (mm dd yyyy)

**Instructions:** Below are some ways that you might think, feel, and act when faced with problems in everyday living. We are not talking about the ordinary hassles and pressures that you handle successfully every day. In this questionnaire, a problem is something important in your life that bothers you a lot, but you don't immediately know how to make it better or stop it from bothering you so much. The problem could be something about yourself (such as your thoughts, feelings, behavior, health, or appearance), your relationships with other people (such as your family, friends, teachers, or boss), or your environment and the things you own (such as your house, car, property, or money). Please read each statement carefully and choose one of the numbers below that best shows how much the statement is true of you. See yourself as you usually think, feel, and act when you are faced with important problems in your life these days. Circle the number that is the most true of you. Do not erase if you want to change an answer, instead put an "X" through the answer you wish to change. Try to answer all of the questions.

| | Not at All True of Me | Slightly True of Me | Moderately True of Me | Very True of Me | Extremely True of Me |
|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 |
| 1. I spend too much time worrying about my problems instead of trying to solve them. | 0 | 1 | 2 | 3 | 4 |
| 2. I feel threatened and afraid when I have an important problem to solve. | 0 | 1 | 2 | 3 | 4 |
| 3. When making decisions, I do not evaluate all my options carefully enough. | 0 | 1 | 2 | 3 | 4 |
| 4. When I have a decision to make, I fail to consider the effects that each option is likely to have on the well-being of other people. | 0 | 1 | 2 | 3 | 4 |
| 5. When I am trying to solve a problem, I often think of different solutions and then try to combine some of them to make a better solution. | 0 | 1 | 2 | 3 | 4 |
| 6. I feel nervous and unsure of myself when I have an important decision to make. | 0 | 1 | 2 | 3 | 4 |
| 7. When my first efforts to solve a problem fail, I know that if I persist and do not give up too easily, I will eventually find a good solution. | 0 | 1 | 2 | 3 | 4 |
| 8. When I am attempting to solve a problem, I act on the first idea that occurs to me. | 0 | 1 | 2 | 3 | 4 |
| 9. Whenever I have a problem, I believe that it can be solved. | 0 | 1 | 2 | 3 | 4 |
| 10. I wait to see if a problem will resolve itself first, before trying to solve it myself. | 0 | 1 | 2 | 3 | 4 |
| 11. When I have a problem to solve, one of the things I do is analyze the situation and try to identify what obstacles are keeping me from getting what I want. | 0 | 1 | 2 | 3 | 4 |
| 12. When my first efforts to solve a problem fail, I get very frustrated. | 0 | 1 | 2 | 3 | 4 |
| 13. When I am faced with a difficult problem, I doubt that I will be able to solve it on my own no matter how hard I try. | 0 | 1 | 2 | 3 | 4 |
| 14. When a problem occurs in my life, I put off trying to solve it for as long as possible. | 0 | 1 | 2 | 3 | 4 |
| 15. After carrying out a solution to a problem, I do not take the time to evaluate all of the results carefully. | 0 | 1 | 2 | 3 | 4 |
| 16. I go out of my way to avoid having to deal with problems in my life. | 0 | 1 | 2 | 3 | 4 |
| 17. Difficult problems make me very upset. | 0 | 1 | 2 | 3 | 4 |
| 18. When I have a decision to make, I try to predict the positive and negative consequences of each option. | 0 | 1 | 2 | 3 | 4 |
| 19. When problems occur in my life, I like to deal with them as soon as possible. | 0 | 1 | 2 | 3 | 4 |
| 20. When I am attempting to solve a problem, I try to be creative and think of new or original solutions. | 0 | 1 | 2 | 3 | 4 |
| 21. When I am trying to solve a problem, I go with the first good idea that comes to mind. | 0 | 1 | 2 | 3 | 4 |
| 22. When I try to think of different possible solutions to a problem, I cannot come up with many ideas. | 0 | 1 | 2 | 3 | 4 |
| 23. I prefer to avoid thinking about the problems in my life instead of trying to solve them. | 0 | 1 | 2 | 3 | 4 |
| 24. When making decisions, I consider both the immediate consequences and the long-term consequences of each option. | 0 | 1 | 2 | 3 | 4 |

*Items continue on the back page...*

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# SPSI–R:L

Thomas J. D'Zurilla, Ph.D., Arthur M. Nezu, Ph.D., & Albert Maydeu-Olivares, Ph.D.

| | | Not at All True of Me | Slightly True of Me | Moderately True of Me | Very True of Me | Extremely True of Me |
|---|---|---|---|---|---|---|
| | | **0** | **1** | **2** | **3** | **4** |
| 25. | After carrying out my solution to a problem, I analyze what went right and what went wrong. | 0 | 1 | 2 | 3 | 4 |
| 26. | After carrying out my solution to a problem, I examine my feelings and evaluate how much they have changed for the better. | 0 | 1 | 2 | 3 | 4 |
| 27. | Before carrying out my solution to a problem, I practice the solution in order to increase my chances of success. | 0 | 1 | 2 | 3 | 4 |
| 28. | When I am faced with a difficult problem, I believe that I will be able to solve it on my own if I try hard enough. | 0 | 1 | 2 | 3 | 4 |
| 29. | When I have a problem to solve, one of the first things I do is get as many facts about the problem as possible. | 0 | 1 | 2 | 3 | 4 |
| 30. | I put off solving problems until it is too late to do anything about them. | 0 | 1 | 2 | 3 | 4 |
| 31. | I spend more time avoiding problems than solving them. | 0 | 1 | 2 | 3 | 4 |
| 32. | When I am trying to solve a problem, I get so upset that I cannot think clearly. | 0 | 1 | 2 | 3 | 4 |
| 33. | Before I try to solve a problem, I set a specific goal so that I know exactly what I want to accomplish. | 0 | 1 | 2 | 3 | 4 |
| 34. | When I have a decision to make, I do not take the time to consider the pros and cons of each option. | 0 | 1 | 2 | 3 | 4 |
| 35. | When the outcome of my solution to a problem is not satisfactory, I try to find out what went wrong and then I try again. | 0 | 1 | 2 | 3 | 4 |
| 36. | I hate having to solve the problems that occur in life. | 0 | 1 | 2 | 3 | 4 |
| 37. | After carrying out a solution to a problem, I try to evaluate as carefully as possible how much the situation has changed for the better. | 0 | 1 | 2 | 3 | 4 |
| 38. | When I have a problem, I try to see it as a challenge, or opportunity to benefit in some positive way from having the problem. | 0 | 1 | 2 | 3 | 4 |
| 39. | When I am trying to solve a problem, I think of as many options as possible until I cannot come up with any more ideas. | 0 | 1 | 2 | 3 | 4 |
| 40. | When I have decisions to make, I weigh the consequences of each option and compare them against each other. | 0 | 1 | 2 | 3 | 4 |
| 41. | I become depressed and immobilized when I have an important problem to solve. | 0 | 1 | 2 | 3 | 4 |
| 42. | When I am faced with a difficult problem, I go to someone else for help in solving it. | 0 | 1 | 2 | 3 | 4 |
| 43. | When I have a decision to make, I consider the effects that each option is likely to have on my personal feelings. | 0 | 1 | 2 | 3 | 4 |
| 44. | When I have a problem to solve, I examine what factors or circumstances in my environment might be contributing to the problem. | 0 | 1 | 2 | 3 | 4 |
| 45. | When making decisions, I go with my "gut feeling" without thinking too much about the consequences of each option. | 0 | 1 | 2 | 3 | 4 |
| 46. | When making decisions, I use a systematic method for judging and comparing alternatives. | 0 | 1 | 2 | 3 | 4 |
| 47. | When I am trying to solve a problem, I keep in mind what my goal is at all times. | 0 | 1 | 2 | 3 | 4 |
| 48. | When I am attempting to solve a problem, I approach it from as many different angles as possible. | 0 | 1 | 2 | 3 | 4 |
| 49. | When I am having trouble understanding a problem, I try to get more specific and concrete information about the problem to help clarify it. | 0 | 1 | 2 | 3 | 4 |
| 50. | When my first efforts to solve a problem fail, I get discouraged and depressed. | 0 | 1 | 2 | 3 | 4 |
| 51. | When a solution that I have carried out does not solve my problem satisfactorily, I do not take the time to examine carefully why it did not work. | 0 | 1 | 2 | 3 | 4 |
| 52. | I am too impulsive when it comes to making decisions. | 0 | 1 | 2 | 3 | 4 |

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**Appendix N**

Copy of the items in The Trauma Related Shame Inventory (TRSI, Oktedalen et al., 2014).




1. As a result of my experience I have lost respect for myself.
2. Because of what happened to me others find me less desirable
3. I am ashamed of myself because of what happened to me
4. As a result of my traumatic experience, others have seen parts of me that they want nothing to do with
5. As a result of my experience I cannot accept myself
6. If others knew what happened to me they would view me as inferior
7. If others knew what happened to me they would be disgusted with me
8. I am ashamed of the way I behaved during my experience
9. I am so ashamed of what happened to me that I sometimes want to escape from myself.
10. As a result of my experience I find myself less desirable
11. I am ashamed of the way I felt during this experience
12. If others knew what had happened to me they would look down on me
13. As a result of my experience there are parts of me that I want to get rid of
14. If others knew what happened to me they would not like me
15. Because of my experience I feel inferior to others
16. If others knew what happened to me they would be ashamed of me
17. If others knew what happened to me they would find me unacceptable.
18. As a result of my experience a part of me has been exposed that others find shameful
19. If others knew how I behaved during this experience they would be ashamed of me
20. My experience has revealed a part of me that I am ashamed of

21. As a result of my traumatic experience I don’t like myself
22. If others knew how I felt during my experience they would be ashamed of me
23. Because of what happened to me I am disgusted with myself
24. I am so ashamed of what happened to me that I sometimes want to become invisible to others.

**Appendix O**

Copy of the items in The Brief Cope Scale (COPE-B, Carver, 1997)

Finally, the following set of questions relate to the ways in which you have been coping since finding out that there were/or could possibly be images/videos shared of you by a current or ex-partner. People deal with things in different ways, but I am interested in how you have tried to deal with it. Each item says something about a particular way of coping, and I want to know to what extent you've been doing what the item says. Don't answer on the basis of whether it seems to be working or not – just whether you're doing it or not. Make your answer as true FOR YOU as you can. There is no right or wrong answer.

1 – I haven't been doing this at all
2 – I've been doing this a little bit
3 – I've been doing this a medium amount
4 – I've been doing this a lot.

1. I've been turning to work or other activities to take my mind off things
2. I've been concentrating my efforts on doing something about the situation I'm in.
3. I've been saying to myself "this isn't real"
4. I've been using alcohol or other drugs to make myself feel better.
5. I've been getting emotional support from others
6. I've been giving up trying to deal with it
7. I've been taking action to make the situation better
8. I've been refusing to believe that it has happened
9. I've been saying things to let my unpleasant feelings escape
10. I've been getting help and advice from other people
11. I've been using alcohol or drugs to help me get through it
12. I've been trying to see it in a different light, to make it seem more positive
13. I've been criticizing myself
14. I've been trying to come up with a strategy about what do
15. I've been getting comfort and understanding from someone
16. I've been giving up the attempt to cope
17. I've been looking for something good in what's happening

18. I’ve been making jokes about it
19. I’ve been doing something to think about it les such as going to the movies, watching TV, reading, daydreaming, sleeping or shopping
20. I’ve been accepting the reality of the fact that it has happened
21. I’ve been expressing my negative feelings
22. I’ve been trying to find comfort in my religion or spiritual beliefs
23. I’ve been trying to get advice or help from other people about what to do
24. I’ve been learning to live with it
25. I’ve been thinking hard about what steps to take
26. I’ve been blaming myself for things that have happened
27. I’ve been praying or meditating
28. I’ve been making fun of the situation.

**Appendix P**

Advert which will be shared on social media, alongside link to survey.

Hi everyone, I am a second year doctoral student and would appreciate it if you could spare 15 minutes to fill in the survey by following the link below. The topic is around revenge porn and engagement in elements of this behaviour. You do not have to have been directly affected by revenge pornography, as I am also interested in looking at the public views of it. All responses are completely anonymous. Over 16's only.

**Appendix Q**




# INFORMATION SHEET

(Final Version 1.0: 01.02.2016)

**Title of Study:** The motivations and explanations of revenge pornography, and its effects on victims.

**Name of Researcher: Sarah Bothamley and Dr Ruth Tully**

We would like to invite you to take part in our research. Before you decide, we would like you to understand why the research is being done and what it would involve for you. Please feel free to talk to others about the study if you wish, and contact us if there is anything that is not clear.

**What is the purpose of the study?**

The researchers aim to explore public views of, and behaviours around the act of sharing an intimate photograph or video. As well as this, it aims to explore the views of those individuals whom may have been victimised, which may be an unpleasant experience. The sharing/distribution of intimate photographs, with intent to cause distress is also known as revenge porn.

**Why have I been invited?**

You are being invited to take part because you are aged 16 or over, and have followed the link on a social media website. We are **inviting as many as possible participants** like you to take part – you do not have to have any experience of having shared intimate images or having had intimate images of yourself shared.

**Do I have to take part?**

It is up to you to decide whether or not to take part. If you do decide to take part, should you wish you may print of a copy of this information webpage, and click to continue on to go through a consent webpage. If you decide to take part, you are still free to withdraw from the study at any time and without giving a reason. This would not affect your legal rights.

**What will happen to me if I take part?**

Once you have read this information sheet you will have an understanding of the nature and purpose of the research. If you decide to continue, you will click to continue and you will be presented with a consent webpage where you are asked if you wish to continue in order to participate in the study. Once consent has been given, you will be asked for some general information (age, gender), however at no stage will you be asked for any information that may identify you (such as your name), and you will remain anonymous. Following this, you will be

presented with a few questions about behaviours surrounding your behaviour within/following a relationship. After you have answered these few questions you may be requested to complete a further set of questions which will ask you about your personality and how you feel about yourself. A page containing further information will be presented when you have reached the end of the questionnaire. This study will take approximately 15-20 minutes to complete.

You can exit the survey at any point by clicking X in your browser and the data you have completed will not be uploaded. Your data will only be uploaded when you have completed the survey and clicked the submit button at the end.

**Expenses and payments**

Participants will not be paid to participate in the study.

**What are the possible disadvantages and risks of taking part?**

This is a sensitive topic and some participants may feel uncomfortable and be affected by the subject matter. If you feel at any time during the questionnaire that you do not want to continue then you may withdraw from the study at any point. You are also able to contact the researcher at any point on the email address provided below. On the final page of the questionnaire there will be further signposting and links to other resources that may be helpful or of interest to you.

**What are the possible benefits of taking part?**

We cannot promise that the study will help you, but the information we get from this study may help to gain a more holistic view of beliefs about the sharing of intimate photographs, and experiences of those who have had a photograph/video shared of them. The researchers aim to disseminate this research so that organisations can gain a better understanding, and offer support to those affected.

**What happens when the study stops?**

Data and participant responses will be stored electronically by the researcher on a personal computer, and university drive accessible only by the researcher and supervisor. Data is only accessible via the researcher's username and private password to ensure data remains confidential. The supervisor will be able to access this data. The data will be analysed using a statistical package and the findings will be presented in a research dissertation, which may or may not be published in a journal or presentation format.

**What if there is a problem?**

If you have a concern about any aspect of this study, you should speak to the researcher who will answer your questions. The researcher's contact details are given at the end of this information sheet. If you remain unhappy, you can contact the researcher's supervisor. These contact details are also at the end of this information sheet.

**Will my taking part in the study be kept confidential?**

As a participant **you will remain anonymous** throughout the entire study. This means that the researchers will not be able to identify you based on your participation.

All information that is collected about your responses during the course of the research will remain anonymous. It will be stored securely and on a password protected computer. Any information that you provide will be anonymous and at no point will your name be requested.

The information you provide will be viewed by the researcher and the researcher's supervisor. It may be viewed by other authorised individuals at the University of Nottingham who will check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty.

We will do everything possible to ensure your answers in this study are anonymous, however, as with any online related activity the risk of a breach is always possible. An encrypted secure https website will be used to host the questionnaire to minimize these risks. To ensure anonymity an option to collect and store responses without any additional details will be active in the survey tool being used. This means the researchers will not be able to see, access or store your IP address.

All research data will be kept securely for seven years. After this time your data will be disposed of securely.

**What will happen if I don't want to carry on with the study?**

Your participation is voluntary and you are free to withdraw at any time, without giving any reason, and without your legal rights being affected. If you withdraw from the study, after you have clicked the submit button then any unidentifiable information collected so far cannot be erased and this information may still be used in the project analysis.

**What will happen to the results of the research?**

The results and findings will form part of a doctoral study, and as such be written up for educational purposes, as part of the researcher's education. No data identifying any participant (i.e. names) will be included in the dissertation or publication of this.

It is hoped that the results of the research will be published in scientific journals or communicated in presentations.

Participants will be able to obtain a summary of findings once the thesis project is complete. This is likely to be in September 2017, and so participants are able to contact me with such a request on the email address provided below.

**Who has reviewed the study?**

This study has been reviewed and given a favourable opinion by the University of Nottingham's Faculty of Medicine and Health Sciences' research ethics committee (FMHS Research Ethics ref no: H14062016).

**Further information and contact details**

Researcher: Sarah Bothamley, Doctoral Forensic Psychologist in Training (Year 2)
Researcher's e-mail address: msxslb@nottingham.ac.uk

Supervisor: Dr Ruth Tully, Consultant Forensic Psychologist and Assistant Professor
Supervisor's e-mail address: ruth.tully@nottingham.ac.uk

**Appendix R**




# CONSENT FORM

(Final Version 1.0: 01.02. 2016)

**Title of Study:** The motivations and explanations of revenge pornography, and its effects on victims.

**Name of Researcher: Sarah Bothamley & Dr Ruth Tully**

**Please tick box**

1. I confirm that I have read and understand the information sheet (as detailed on the previous webpage). ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without my legal rights being affected. I understand that should I withdraw from the study after you have clicked the submit button then the unidentifiable information collected so far cannot be erased and that this information may still be used in the project analysis. ☐
3. I understand that the data collected in the study may be looked at by authorised individuals from The University of Nottingham, the researcher's supervisor(s) and regulatory authorities where it is relevant to my taking part in the study. I give permission for these individuals to collect, store, analyse and publish information obtained from my participation in this study and that as this is an anonymous survey, I cannot be identified. ☐
4. I am aged 16 or over ☐
5. I agree to take part in the above study. ☐

Click here to agree to all of the above and to give informed consent to take part in this research. I understand that my completion of the following questionnaires is considered to constitute informed consent. ☐

**Appendix S**

Participant Debrief

Thank you for taking the time to complete the questionnaire.

The disclosure of a *private sexual photograph or film...without the consent of an individual who appears in the photograph or film, and with the intention of causing that individual distress* is known as revenge pornography. This area has been highlighted in the media, and it has been catapulted into the public arena.

The act has been described as akin to "cyber rape" (Mathen, 2014:542), and its effects on victims have been noted on websites aimed towards victims of revenge pornography. It can be viewed as an extension of domestic violence, with both current and former intimate partners suffering threats of image distribution as a means to keep control and harass them.

The Ministry of Justice has launched a campaign to raise awareness about Revenge Pornography which may be helpful to you. If you type "Be aware B4 you share" into your search bar there is a whole host of information which may be of use to you.

If you use Facebook there is a page on there that contains information in relation to revenge pornography which may be of interest to you.

https://www.facebook.com/beawareb4youshare/?fref=nf

The following PDF document offers a wealth of information around the subject of revenge porn, from describing what revenge porn is to how to deal with it if you feel that you may have been victimised by this.

http://www.revengepornhelpline.org.uk/documents/RP-Helpline_web.pdf

For those who feel they have been affected by revenge porn there is a dedicated helpline in which you can call to seek advice: 0845 6000 495.

If these do not answer any concerns or questions that you may have then please find the researcher contact details below.

Researcher: Sarah Bothamley. Doctoral Forensic Psychologist in Training.

Researcher's email address: msxslb@nottingham.ac.uk

This doctoral project is being supervised by Dr Ruth Tully.

Supervisor email address: Ruth.Tully@nottingham.ac.uk

In line with the University of Nottingham Code of Research and research ethics, if you have a concern or complaint about the conduct of this research then please contact Dr Ruth Tully using the email address provided.