Examining Internet Facilitated Sexual Offending in Adult Populations.

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Abstract

This thesis will examine Internet Facilitated Sexual Offending (IFSO) in adult populations. Previous research has focused on sexual offences perpetrated against children or online only forms of sexual violence such as the release of explicit images. There is a need to understand the IFSO of adults as a separate offence: where an online approach has led to a sexual offence which has occurred in the physical world, encompassing both spheres. This thesis consisted of a theoretical overview of the topic examining IFSO through the lens of Routine Activity Theory. The theoretical chapter found that Routine Activities Theory is useful for mapping out the different elements of IFSO in relation to the motivation of offenders, victimology, and the online environment. A systematic review of the topic examined what is already known about IFSO in the existing literature and identified gaps and areas for an improvement. This review uncovered six themes: the multitude of terms, prevalence rates, offending behaviour, victim behaviour, correlates of victimisation and finally, challenges to the investigation.

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Introduction to Thesis

In recent years, concerns have arisen over the increase in the number of sexual offences reported to the police over the last decade (Rape Crisis, 2022). This is evidenced by the 70,330 rapes that were reported in England and Wales in the year ending March 2022. Rape Crisis (2022) reports that one in four women in England and Wales will experience rape or sexual assault in their lifetime and one in ten men. In response, the government set up its own Tackling violence against women and girls' strategy in 2021. This aims to inform the public how the government will prioritise prevention, support survivors, pursue perpetrators and create a stronger system. A growing body of evidence appears to be suggesting a link between the internet and sexual offences which have been conducted in-person (NCA, 2016;2022). This has gradually emerged since the turn of the century, largely due to the rise of online dating.

Recent social trends across the world have highlighted the importance of gathering more research and data on sexual offences. One example is the MeToo Movement. This refers to the floodgate of allegations of sexual harassment and sexual assault made in 2017/2018 following the furor over Harvey Weinstein's sexual misconduct. (Levy & Mattsson, 2020). These triggered thousands of women across the world to begin tweeting their own experiences regarding sexual harassment and assault, becoming a hashtag on Twitter. The MeToo movement has been successful in raising awareness over the severity and widespread pervasiveness of sexual assault and rape across society (Levy & Mattson, 2020).

Another social trend which may have influenced sexual offences is Covid-19. Due to the Covid-19 pandemic, governments across the world have implemented lockdown measures and social distancing to prevent the spread of Coronavirus (Halford et al., 2020). A consequence of this is that mobility patterns of the British population were drastically altered for much of 2020/2021. This has resulted in sweeping changes in the routine activities of both offenders and victims, restricting the opportunities for crimes/meetings to occur. So far, it is relatively unknown what the immediate effects of lockdown have been on in-person sexual offending. One view is that in-person sexual offences have fallen (ONS, 2021) as victims and potential offenders.

However, this assumes that victims have been reporting in the same fashion as they were pre-lockdown; the new laws may have deterred victims from reporting their crimes due to fear of being penalised for breaking them when agreeing to meet with their offender. Another assumption which must be challenged is that offenders have been obeying the lockdown measures in the first place (Halford et al., 2020). Perceptive offenders may have taken advantage of the reduced footfall and guardianship which is usually present in public areas to meet with victims discretely.

An additional consequence of the increased amount of time spent within the home has been the significant increase in internet activity (Arend et al., 2021). The NSPCC (2022) reported an 84% increase in the number of online initiated sex offences in 2022 compared to 2017/2018. Whilst this report mostly referred to the online grooming of children, it suggests increased levels of internet activity and criminality during the pandemic. The increased use of online platforms such as dating sites and social media has allowed both offenders and victims to navigate around lockdown measures; increasing the likelihood their activities can converge online (Arend et al., 2021). These online conversations then lay the foundation for offline meetups which could take place illegally or indeed after the measures have been relaxed. Significantly, estimating the true number of sexual offences and the effect of Covid-19 is difficult to establish given the historical issues associated with encouraging victims to come forward and the ever-changing mobility patterns associated with changes in quarantine measures (Halford et al., 2020). More research is needed to be conducted in this area to track the effect of Covid-19 on sexual offending patterns.

Most of the literature in this area, has focused on online child sex offending (Shelton et al., 2016) but there is now increasing awareness that adults can fall victim. For this reason, this thesis will focus solely on adult victimisation (victims aged 18 and older). A review in this research area would be beneficial because this is a conceptually challenging topic where the type of offending lies somewhere between the categories of 1) sexual offences which exist entirely online and 2) sexual offences which exist solely in the physical world, with no online contact. This will confirm whether research on child/adolescent victimisation is transferrable to adult victimisation.

The focus for this thesis will therefore be to examine Internet Facilitated Sexual Offending (IFSO) as a phenomenon. IFSO will be used as the term to describe such behaviour except when other authors have used different terms. IFSO refers to cases where victims have been approached online by sex offenders before then being raped or sexually assaulted in-person. Due to the increasing importance of the internet in our everyday lives, these offences are becoming ever more relevant for researchers. This thesis consists of two main chapters. Chapter 1 will consist of a theoretical approach to IFSO constructed through the lens of Routine Activity Theory. The drastic altering of routine activities of both victims and offenders in recent years offers compelling insights for researchers in this field. Through this, various motivational theories of adult sexual offenders (which predate the internet) will be considered using Knight and Prentky's (1990) typology. Other theories will be included and critiqued to determine how effective they are at explaining IFSO. Then, the role of 'suitable victims' in IFSO will be explored through the risk factors that increase victimisation and consideration for the role of online self-disclosure (Cohen and Felson, 1979). Afterwards, the role of the online environment will be mapped out with reference to how the internet creates an environment conducive to offending which can also happen in the physical world. This will refer to guardianship, online proximity indicators, perceived anonymity, and online disinhibition.

Following on, Chapter 2 will consist of a systematic review which will report the findings of the literature search relating to IFSO. This will contain a full outline and rationale for the search strategy, a data extraction, quality assessment tables using the Mixed Methods Appraisal Tool (Hong et al., 2018) and a discussion of the key findings from the literature. Finally, the thesis will conclude by relaying the findings of two chapters and confirming whether RAT is a suitable theory for examining IFSO.

Chapter One: Theoretical Chapter

Theoretical Chapter: Applying Routine Activities Theory to the phenomenon of Internet Facilitated Sexual Offending.

Introduction

This chapter explains Internet Facilitated Sexual Offending (IFSO) by drawing on a range of theoretical explanations of rape and sexual violence within the overarching framework of Routine Activity Theory (RAT). In doing so, this chapter evaluates how effective RAT is at explaining this recent phenomenon. RAT (Cohen & Felson, 1979) states that for a crime to happen a motivated offender and a suitable victim must align in the absence of a capable guardian. This chapter is, therefore, structured around these three main elements, examining IFSO through each element of RAT. The order in which these elements have been discussed does not necessarily reflect the nature of the offending process; being convergent in nature and not linear. First, the motivations of IF offenders will be explored in relation to typologies of sex offenders that propose motivations for sexual offending, and which can therefore be evaluated in terms of what might motivate someone to commit a sexual offence using the Internet.

Regarding the second element of RAT, the suitable victim, the chapter reviews the different risk factors cited in the literature which characterise IFSO. Following this, theories which explain how offenders select their victims and therefore what makes a victim ‘suitable’, will be discussed including Rational Choice Theory (Cornish & Clarke, 1986). This will provide further explanation about why certain groups are viewed as more suitable victims.

Following this, the last element of RAT, the absence of guardians, is considered in terms of the online and physical world given an Internet-facilitated sexual offence occurs in both environments. The role of guardianship will be conceptualised; both online and in the physical world, with online proximity being included as a more recent online feature. Moving on, perceived anonymity will be considered as a key feature of IFSO as well as online disinhibition. Lastly, the thesis will conclude giving the author’s overall view of how well the different theories collectively explain IFSO.

Motivated Offenders

RAT states that, for a crime to happen, there must be a motivated offender (Cohen & Felson, 1979). This refers to individuals who will self-select to commit a crime, in this case, IFSO against adult victims. Motive is defined as “the emotional, psychological, and material needs that drive and are satisfied by behaviour” (Turvey & Freeman, 2011, p. 382). The analysis of motivation to sexually offend has been explored for decades by various authors with numerous motives for sexual offending being alluded to. One method of mapping out and categorising the different motivations of offenders has been through typologies.

An early typology of rape was proposed by Groth et al (1977) that distinguished stranger rapists into those who were motivated by power and those who were motivated by anger resulting in 4 sub-groups: Power-assertive, Power-Reassurance, Anger Retaliatory, and Anger Excited. Power-Reassurance rapists were thought to commit sexual offences to resolve their own worries about their masculinity and perceived sexual inadequacies. Violence is only used in the case of victim resistance. The offence makes the victim feel helpless and controlled, giving the offender a sense of power. Power-Assertive rapists are thought to use their crimes to show dominance and masculinity but are impulsive in offending. They can also be anti-social and aggressive. Anger Retaliatory rapists are motivated to offend as a way of releasing anger against their victims and will tend to humiliate and degrade them. The final type is the anger excitation or sadistic rapist who uses their offences to satisfy pre-existing sexual fantasies which involve torture and pain in their sexual offences. They are motivated by sexual gratification.

It is possible to infer that offenders now use the internet and the numerous online platforms associated with it to meet their individual criminogenic needs. For anger retaliatory rapists, they primarily express their anger towards the victim in-person at the point of the offence. However, the internet now provides more opportunities for sexual offenders to express anger over potential victims online. One example of how anger can be expressed both online and in-person is the Incel movement. This is an abbreviation of the term ‘involuntary celibate’ and refers to the phenomenon of young men who have struggled to have meaningful sexual relationships. These individuals

then share their thoughts and vent their outrage online. This movement is characterised by overt misogyny and hostility towards women and feminism, as well as perceived injustices (Salojärvi et al., 2020). For power-reassurance/power-assertive rapists, the internet also provides more opportunities for expressing power and control over their victims. For example, in online conversations users may have revealed personal information about themselves or sent explicit images/videos (Powell & Henry, 2018). These could be exploited by potential offenders to coerce the victim into meeting in-person where they can be raped (Powell, & Henry, 2018). Technological advancements have meant victims are more likely to be found in scenarios where sexual offending can occur with power rapists able to exercise the level of control they seek from their targets in the physical world.

Another typology proposed was developed by Knight & Prentky (1990) (MTC: R3 - The Revised Rapist Typology) and identified four main motivations. These are: opportunistic, pervasively angry, sexual, and vindictive. Offenders falling within these motivational types are further divided into nine sub-types. Firstly, ‘opportunistic’ refers to offenders who conduct their crimes in an impulsive and unplanned manner (Knight & Prentky,1990). These offences are heavily influenced by contextual and situational factors. They exhibit behaviours such as poor impulse control and anti-social behaviour but show little evidence of anger or excessive force. The level of violence and aggression in the offending will usually be limited to only what is in response to victim resistance. The offenders seek sexual gratification from the victim and will offend when the chance arises. The Knight & Prentky (1990) typology further distinguished offenders with an opportunistic motivation into two sub-types: type 1 with high social competence and type 2 with low social competence. This was done to accommodate the differences displayed in this offending population in terms of social skills when approaching victims. With regard to RAT, the prominence of the Internet in our everyday lives, with access to multiple social media platforms, provides many opportunities to initiate a sexual offence (Fisico & Harkins, 2021) and therefore is well suited to explaining the offending of opportunistically motivated offenders who can encounter victims online with relative ease. The ITSO (Integrated Theory of Sexual Offending) model outlined how an ecological niche can provide the circumstances in which sexual offending can happen (Ward & Beech, 2006, 2012).

As opportunistic offenders are more influenced by situational factors, online platforms provide another situational context for them to approach potential victims, a stepping-stone for meeting in-person.

Another motivation identified relates to so called ‘Vindictive’ rapists (Knight & Prentky, 1990). For these offenders, the women they offend against are the main target for their anger. These offenders enjoy humiliating, degrading and seriously harming their victims, with their offences containing the full spectrum of aggression and violence including degrading comments towards the victim. These are distinguishable from pervasively angry offenders as they show no sign of anger towards men; women are the main target for their rage. They also show no signs of sadism or that their aggression is sexualised. They also differ from some of the earlier types of offenders as they display lower levels of impulsivity. Similar to opportunistic offenders they are divided into two sub-groups based on their level of social competence (type 8 and type 9). Malamuth et al. (1994) cited the role of hostile masculinity in motivating offenders to dominate, control and/or even humiliate women, demonstrating wider theoretical support. An example of how vindictiveness and IFSO are linked is the Incel movement (Salojärvi et al., 2020). These online forums associated with the Incel movement have also been linked to violence in the physical world (Laskovtsov, 2020). This reveals how online subcultures can legitimise harmful behaviour, reinforcing attitudes tolerant of sexual abuse and potentially escalating towards violence in the physical world (Neto et al., 2013). Incel could be an example of hostile masculinity partly facilitated by the internet and its many online platforms can inspire sexual offences which may be initiated online but are conducted in-person.

The next motivation identified by Knight & Prentky (1990) was Pervasively Angry Offenders. These are sexual offenders whose offences are characterised by intense anger and excessive levels of aggression and violence. These offenders will show brute force and often cause serious physical injury towards their victims, above and beyond what is necessary to manage victim resistance. Knight & Prentky (1990) believe, whilst these offenders are violent, their anger is not inherently sexual in nature and they may not have pre-existing fantasies. The anger they display is their sole driving force with their fury also not thought to be limited to the victim or to

women but a whole variety of groups including men. These offenders will have difficulties controlling their aggressive and impulsive urges. These offenders were known as type 3 and had no sub-types. There is support for the role of anger in sexual offending in the theoretical literature, as cited in Marshall & Barbaree's (1990) Integrated Theory of the Etiology of Sexual Offending. It is possible pervasively angry individuals could be triggered into action (Beech & Ward, 2004) by rejections online. The sexual offending in-person would be a way for them to release this anger. There is some evidence to suggest online rejections can increase male hostility (Andrighetto et al., 2019). Also, it is now possible these offenders may approach victims online but when they meet in-person and their requests for sex are rejected, this may trigger rape coupled with excessive violence.

The final sexual motivation identified was the Sexual motive (Knight & Prentky, 1990). This refers to another subgroup of offenders whose common characteristic is prolonged and/or sadistic fantasies which precipitate the rape and sexual assault. Sexual gratification is the primary aim of the offences. Their sexual fantasies are distorted by a fusion of sexual impulses and aggression and these offenders have a need for dominance and coercion to overcome their perceived inadequacies. These offenders are distinguished by the presence or absence of sadistic behaviour and their level of social competence, resulting in four sub-types. For sadistic types, these individuals show poor differentiation between sexual urges and aggressive impulses. Ward & Siegert's (2002) Pathways model of sexual offending also highlights the role of deviant sexual fantasies in sexual offending; sadism being a prime example as such a fantasy. With the quantity of sadistic pornographic material now available online (Atkinson & Rodgers, 2016), it is relatively easy for sadistically motivated rapists to access such material to reinforce their fantasies (Beauregard et al., 2004). This can be done solitarily or with others on online forums. Masturbation to online material can reinforce, and exacerbate, pre-existing sadistic fantasies (Neto et al., 2013).

In contrast, the non-sadistic sexual types of rapist exhibit much less aggression than the other types, even when faced with victim resistance. Knight & Prentky (1990) believed these offenders did not show any confusion between sexual acts and

aggression, with the latter distinctly absent from their offending patterns. They may be less likely to restrain the victim in the face of strong resistance which could encourage them to escape the scene. Their offences are believed to be the result of perceived inadequacies in relation to masculinity. They show no evidence of sadistic behaviour and instead are thought to be motivated by their cognitive distortions over women and sex. The ITSO model notes cognitive distortions as one of many clinical factors which can lead individuals to become sexual offenders, for example the belief that victims welcomed sexual advances (Ward & Beech, 2006). The internet may further reinforce these cognitions through pornography and provides offenders the opportunity to rehearse deviant fantasies where pain is inflicted upon victims through rape (Neto et al., 2013).

It is notable there is some crossover in content from both the Groth et al (1977) and the Knight and Prentky (1990) typologies. For example, the role of anger in sexual offending was explored in both author's work with Groth et al's(1977) Anger Retaliatory category displaying much similarity to Knight and Prentky (1990)'s Pervasively Angry category. Anger-excited in the Groth model is also similar to the sadistic sexual rapists proposed by Knight and Prentky (1990). However, the Groth et al (1977) neglects to incorporate the role of opportunistic offenders in their typology. This is where Knight and Prentky (1990) offer explanations for more chance taking offenders. Nevertheless, Knight and Prentky (1990) fail to mention the role of pseudo-intimacy in sexual offending, This is where Canter (1994)'s model develops as a successor.

Another classification of stranger rapists was suggested by Canter (1994) in his Victim Roles Model for stranger rapists. His model describes three different roles that offenders ascribe to victims against whom they offend and how this affects the rapist-victim interaction. In addition, these roles are associated with different empathy deficits in the rapist. First, 'victim as object' is where the offender intends to control the victim and shows little emotion towards them at the crime scene. The offender adopts a physical approach, possessing and subjugating the victim (Canter & Youngs, 2012). The empathy element that is missing is believed to be the Humanity variant and the rapist objectifies the victim. Canter & Youngs (2012 p.300) cites the empathy deficit as relating to to "a lack of awareness of their humanity at all that

produces objectification of the victim." Second, 'victim as vehicle' is where the offence is used as a vehicle for expressing anger and aggression towards the victim. These offenders adopt a psychological approach using abuse to control the victim (Canter & Youngs, 2012). The victim is thought to represent a person of significance to the offender. The empathy element missing is the compassion variant, and they exploit the victim as a way of venting anger and frustration. Canter and Youngs (2012 p.300) state that the offence and empathy deficit is expressed as "a lack of concern or compassion for the suffering of others that manifests in some form of exploitation of the victim." Finally, 'victim as person' is where the offender uses the offence to gain some form of intimacy from the victim. These offenders adopt a behavioural/social approach, coercing the victim (Canter & Youngs, 2012). The empathy element missing is the value variant with their approach centred around manipulation. The offenders see the victim as a person but do not value or respect them. Canter and Youngs (2012 p.300) cite that "the empathy deficit is in an undervaluing of the victim as an individual that manifests in a preparedness to take advantage of them as people."

A criticism of these sex offender typologies (Groth et al., 1977; Knight & Prentky, 1990; Canter, 1994) is that they were designed for sexual offending which occurs only in the physical world; many of these theories predate the rise of the internet. The role of the internet in the approach phase of the offence and how it may affect subsequent offending behaviour and typologies has been neglected. There is possibility for behaviour and typologies to be different and requires further clarification to ensure findings are generalisable. In terms of the internet, online platforms may present more manageable opportunities for offending as these offenders can now approach victims online with less fear of public rejection and humiliation (Haywood, 2018). In response to this, Almond et al (2020) conducted an empirical study on IFSO and found three behavioural themes among IF sexual offenders, demonstrating evidence for the Victim Role Model amongst this offending population: violence, criminal sophistication, and interpersonal involvement. These themes correspond well to the Canter (1994) study with victim as vehicle similar to violence, victim as object similar to criminal sophistication and victim as person similar to interpersonal involvement.

Another criticism of the typologies could be the lack of mention of the gender disparity in victimisation patterns. Feminist authors note the vast majority of sexual offences consist of men offending against women (McPhail, 2016). This is one of the most consistent themes of sexual offending. Although Knight & Prentky (1990) acknowledge that vindictive rapists use sexual offending as a method to punish and humiliate women, the significance of gender is largely absent from the other sub-types. The same gender disparities are likely to be present for all the sub-types and this requires explanation. Feminist scholars believe misogyny to be the primary motivation of all sexual offenders who target female victims (McPhail, 2016). It could be argued that all rapes where women are victims are designed to control them in some way, regardless of the level of violence or sexual behaviours exhibited.

It is difficult to establish at this stage how the level of motivation varies between IFSO's and those who do not use the internet to approach victims. It could be argued that motivation among IFSO's is lower as less effort is required, at the initial stage, to initiate contact with victims. This is due to the convenience provided by social media and dating apps (Whitty, 2016). Alternatively, IFSO's could premeditatively build up some relationship with the victim prior to securing the in-person meeting (Centelles, 2019). Early preliminary research from Navarro and Jasinski (2015) suggests offenders who use an online approach displayed inclinations towards higher levels of motivation. However, this sample was conducted on those who approached children and adolescents as victims. The authors suggested that more research should be conducted to confirm findings and consider a wider range of indicators for motivation in the context of RAT (Navarro and Jasinski, 2015).

Another model which offers further explanations for why individuals are motivated to commit sexual offences in general is 'The Good Lives Model' (Ward et al., 2007). This model cites that offenders commit sexual offences to meet certain criminogenic needs obtained through illegitimate means, in contrast to the rest of the population who use more legitimate sources to meet their needs. The authors gave eleven examples of 'primary goods' individuals might wish to meet, some of these offer explanations for the different expressions of sexual offences. More recently, this model has been applied to explain Internet Sexual Offending (Ryan et al., 2019). For

example, It is plausible that IF sex offenders might also offend in order to meet their need of pleasure, which explains offenders who perpetrate to obtain sexual gratification; pleasure being one need cited by this model. Other needs included in the model are: inner peace which corresponds well to rapists who use their offences to express anger, relatedness for offenders who use rape to gain intimacy and excellence in agency for offenders who wish to have power and control over their victims. This provides some further theoretical support for the heterogeneity of the internet sex offender population.

'Suitable Victims'

The second element of RAT which is relevant to the study of IFSO is that of suitable targets or victims. RAT states that for a crime to happen, a suitable target must be identified and selected (Cohen & Felson, 1979). Felson (2000) identified four main components which increase the risk of victimisation: Value, Inertia, Visibility, and Access (VIVA). These characteristics provide a lens through which to assess victimology in IFSO. The concept of VIVA can be especially useful when applied to risk factors and victimisation.

Value

Value refers to the function or importance the victim holds to the offender (Yar, 2005). A victim may fulfil a certain fantasy for the offender which in turn contributes as a factor required for selection. The victim may have desirable characteristics for example being a young female, who is perceived to hold a certain level of attractiveness. Profiles posted on online platforms can be searched for images so an offender can decide whether a victim is worth pursuing (Boillot-Fansher, 2017).

Inertia

Inertia is the level of perceived resistance the victim is thought to be capable of; the greater the inertia, the less suitable the victim is for in-person offences (Yar, 2005). The level of compliance, vulnerability and resistance expressed by victims are thought to be key factors for consideration when an offender is planning to transgress. Offenders can now use online platforms to cyberstalk and find information about potential victims including their level of vulnerability and suitability

for offending (Boillot-Fansher, 2017). For IFSO victims, this could refer to the level of physical strength the victim is perceived to have, how isolated they appear or whether the victim may carry weapons. If presented with multiple victims, the offender will likely select victims they believe will be more compliant, more vulnerable, and less able to resist the offence (Wortley & Smallbone, 2006).

Visibility

Visibility simply signifies that the offender must be aware of a potential victim's existence for an offence to be committed against them (Yar, 2005). The concept of visibility is particularly salient when incorporating the online world. The majority of online media are public, free to use and provide many profiles for offenders to view and search through. Prior to the internet, offenders would have been compelled to select victims they came across in person or who responded to the offender's attempts at communication (e.g., via a 'lonely hearts' entry). The internet has made victims more visible to offenders as they are now able to search for victims from any convenient location (NCA, 2016). This has increased the level of choice and options when it comes to victim selection.

Access

Here, access denotes the ability of the offender to initiate contact with the victim and refers to the lack of barriers for offenders. The internet arguably makes victims more accessible to offenders as digital platforms allow offenders to initiate contact with victims at any time or place (Yar, 2005). Victims and offenders no longer must be in each other's physical presence for the offending process to begin. Online communication can be asynchronous so users can respond to each other at any time convenient for them. This could be especially significant for offenders who lack self-confidence and prefer not to approach victims in-person at the outset (Van den Berg et al, 2020). The main risk to the victim associated with using online platforms is that it increases the level of exposure they have to potential offenders (Guerra & Ingram, 2020). This is particularly true if potential victims have profiles on multiple platforms as there are several contexts from which they can be contacted.

Risk factors and IFSO Victimisation

The analysis of victimisation patterns allows researchers to decipher which population groups are most vulnerable to IFSO. These data can be then examined to determine whether VIVA explains these correlates with victimisation.

- ***Gender: Women***

Being female has been identified as a risk factor for victimisation of IFSO (Borrajo et al., 2015; Holt & Bossler, 2008; Pooley & Boxall, 2020). The NCA (2016) reported that 85% of victims of IFSO identify as female which also reflects the wider sex offending literature. Female victims may fulfil a particular fantasy for many adult rapists and consequently may hold some value to them.

- ***Age: Adolescents and Young Adults***

Age is also thought to be a significant risk factor for IFSO victimisation (Leukfeldt & Yar, 2016; Marganski and Melander, 2018). The NCA (2016) reported in their sample that 54% of victims were aged 15-29 years old. There are many reasons why this is believed to be the case. Younger people are more likely to be single, to be digitally active and to have profiles on certain internet platforms, such as dating sites and social media (Zweig et al., 2013). This exposure makes them more accessible to offenders and increases the likelihood of victims and offenders conversing in their everyday online activities. From an evolutionary perspective, young people may be chosen as they are seen as more desirable for example having a youthful appearance (Ward et al., 2006). There is increasing awareness of the growing numbers of older people who are digitally active and utilising dating sites (Vandeweerd et al, 2016) therefore a trend in victims of IFSO becoming older, on average, may be seen in the future.

- ***LGBT***

Being LGBT or from a sexual minority has also been identified in the literature as a risk factor for IFSO (Wurtele & Kenny, 2016). Powell and Henry (2019) found that individuals who were LGBT were more likely to be victimised. This is because LGBT individuals rely more heavily on online dating to meet new partners (Rosenfeld & Thomas, 2012) due to being a marginalised group with a smaller dating pool. For

example, Rosenfeld and Thomas found 60% of LGBT couples now meet online. This increases the likelihood that victims and offenders will converge in their online activities, as per RAT, and make contact. Pooley & Boxall (2020) even suggested that LGBT victims who had not publicly disclosed their sexuality were often targeted by suspects as they are less likely to report to the police for fear of being outed. However, this does not represent the whole picture. 'LGBT' is an umbrella term which encompasses a variety of distinct groups. Whilst there is some evidence to suggest an increased sexual risk-taking amongst a subgroup of gay men, this does not necessarily reflect the majority of gay men (Choi et al., 2017) or indeed the wider LGBT population at large. It is true that some dating apps aimed primarily at gay, and bisexual have been described as hypersexualised and used for 'hook ups' (Dietzel, 2021). Further research should be conducted in this area to confirm this finding.

- ***Level and Type of Online Activity***

The nature and duration of a person's internet activity could be considered a risk factor for IFSO victimisation (Wurtele & Kenny, 2016). The greater the length of time an individual spends online interacting with others, the more at risk they are of being contacted by someone with malicious intent. Even so, the type of online medium being used, and the nature of the online activity is crucial to acknowledge as certain media are more associated with offline harm than others (e.g., dating apps (Pooley & Boxall, 2020) and internet chat rooms (Wurtele & Kenny, 2016)). In relation to VIVA, these media increase the level of access an offender has to a potential victim as they can be contacted at any time or place.

'Sexting' or sending sexually explicit images or videos to individuals met via the internet can also be considered 'risky behaviour' (Boillot-Fansher, 2017 p.1). This can be risky because the offender could threaten to release these images/videos publicly to coerce the victim into a face-to-face meeting where they can be raped. In terms of inertia, this would mean the victim is less likely to show resistance to the offender's demands to secure an in-person meeting if such images have been shared and are being used as blackmail (Dietzel, 2021).

Victim Selection Theories

One of the key decisions a sex offender will make is victim selection (Proulx et al., 1995). Victim selection is crucial as there will be differences in rewards, costs and risks depending on the individual chosen (Townsley et al., 2016). In the case of IFSO, an example of a potential hunting ground would include the use of a dating application.

Rational Choice Theory

One theoretical explanation which could influence victim selection is Rational Choice Theory (RCT) (Cornish & Clarke, 1986). This is the belief that many offenders undergo a certain level of judgement before committing a criminal offence, by weighing up the advantages and disadvantages of all the potential scenarios. It is believed some offenders will consider all the available information before proceeding with their choices. This could be applied to IFSO as an offender may be interacting with multiple victims at once through online mediums and may use RCT to prioritise the most suitable victim. Beauregard & Leclerc (2007) found in their study that most serial sex offenders who target strangers could make cost/benefit analyses when it came to offending behaviour, which is reflective of RCT. Their results also cited how influential situational factors are on an offender's decision-making process such as the level of victim resistance. RCT also emphasises the role of personal agency in the decision making of the offending process, which is complementary to the ITSO theory.

In relation to the internet, the use of online platforms means offenders can now actively search for and screen potential victims from the privacy of their own homes, streamlining the entire victim selection process (Kushlev et al., 2017). It would therefore be worthwhile to infer that offenders use online platforms to assist in selecting victims who appear more vulnerable (either physically or psychologically) and show less resistance, being more cooperative in agreeing to in-person meet-ups. One weakness of RCT is that it does not specify which factors an offender may use to make decisions. This is where the least effort principle comes in.

The Least Effort Principle (LEP) states that a person, when presented with multiple options relating to an activity, will choose the one which involves the least amount of effort (Zipf, 1949). A broad range of factors could be considered when an offender is selecting potential victims such as where the victim lives in relation to the offender, or how available victims are in terms of time. The Internet provides a convenient means of identifying a much larger pool of suitable victims than traditional places of meeting in the physical world (Piazza and Bering, 2009). While the initial meet-up is online, for an IFSO to occur there is a physical meet-up. The LEP as a motivation that can influence offending behaviour is also relevant at this point in terms of how far from their physical locality an offender is prepared to travel. Victims can intentionally or unintentionally reveal information about their geolocation online which offenders can use in decided who is a suitable victim with LEP in mind. It may be preferable for opportunistic offenders to select locations for the physical meet-up which are familiar to them as they are more likely to have spatial knowledge of the surrounding area (Beauregard et al., 2005). This information is often more available as it may be posted on the victim's profile or revealed in private conversation (Fansher & Randa, 2019).

Online Self-Disclosure

Bareket-Bojmel & Shahar (2011) define self-disclosure as "the act of revealing personal information to others" (p. 175). Due to the rise of the internet and the sheer number and availability of online platforms, individuals now have more opportunity to disclose personal information than ever before.

The implications of self-disclosure vary depending on the nature and extent of it. There are many ways in which victims can disclose information online: posting on a site, engaging in conversation, or sharing images and videos (Finkel et al., 2012). It could be argued that even having an online profile is a form of disclosure as it involves revealing some level of information for other users to view. Scannell (2019) observed how revealing personal information can make victims more vulnerable to IFSO. Disclosure of an address or workplace has risks as offenders can locate a victim more easily, enabling them to approach the victim in-person and make surprise visits (Scannell, 2019). Likewise, the sharing of sexually explicit

videos/images make victims vulnerable to blackmail (Pooley & Boxall, 2020). This scenario could result in the victim being coerced into an offline meeting where they can be harmed. According to the NCA (2016) report, more than half of IFSO cases they dealt with involved communications of a sexual nature. This is particularly true of media such as dating sites as there is typically an expectation from both parties that initial online interactions will later result in an offline meet-up, either for companionship, a 'hook up,' and/or an intimate relationship (Finkel et al., 2012). This can mean offenders may have an expectation of sex from the victims, regardless of whether the victim has officially consented prior to the offence (NCA, 2016).

In contrast to a victim, the nature of self-disclosure from some offenders may be more selective and strategic (Finkel et al., 2012). The offender may wish to achieve their goals with maximum effect whilst simultaneously minimising any risk from disclosing too much information which could lead to them being traced or reported to law enforcement. The offender may present themselves positively to attract and maintain the interests of potential victims without alarming them (Finkel et al., 2012). For most offenders, an element of self-disclosure may be necessary to secure an offline meeting successfully (Hardey, 2008).

Many academics have applied the work of Goffman (1959) to explain online self-presentation and assess the nature of self-disclosure (Attrill, 2015a; Bargh et al., 2002; Misoch, 2015; Whitty, 2008). This has resulted in mixed findings with Bargh et al (2002) believing that the anonymity provided by the internet allows individuals to express their true self, resulting in more honest self-disclosure. In contrast, other authors believe that due to the anonymity and technological features the internet provides, it is easier to deceive and create false identities (Attrill, 2015 a; Misoch, 2015; Whitty, 2016). Consequently, there may be individual differences in the effect of perceived anonymity on offending behaviour. Goffman's (1959) work examines self-presentation and observes how people often alter their self-presentation when in the presence of others, resulting in individuals who play different roles. Whitty (2016) uses Goffman's theory to cite how online communication could be interpreted as a performance with offenders fulfilling a fantasy-based role which may differ from the actual self which is met offline. Offenders could use the internet to express themselves in many different ways to multiple victims; exploiting the features of

online mediums. For example, offenders could use multiple identities to approach different victims as seen in the case of Glenn Hartland (ABC News, 2020; Gillett & Suzor, 2020). Concern over deception is a common feature for users of online communication tools (Vandeweerd et al., 2016).

The Online Environment

The third component of RAT for this thesis will be the online environment provided by digital platforms (Finkelhor & Asdigian, 1996). The internet consists of many different mediums including dating sites, social media, private chat rooms, gaming sites, sexual advertisements. Each contain their own unique features and technological characteristics (Bell & Kornbluh, 2019). With these different media, come diverse technological features, requirements, and levels of supervision. The traditional third component of RAT: the absence of a capable guardian is not applicable to the first part of IFSO where the approach takes place online (Reyns et al., 2016). However, the absence of a capable guardian is still applicable to the later stage of the offending process: where the sex offence happens in-person. This section will focus on how the internet creates an online environment which can assist sexual offenders with offences in the physical world. First, by conceptualising guardianship in the online world and examining the role of guardianship in the physical world. Moving on, the emerging feature of online proximity revealed through GPS devices will be explored before considering the role of perceived anonymity and online disinhibition on offending behaviour. Online spaces are sometimes perceived as less surveyed than the physical world; this is not so and will be uncovered later (Bluett-Boyd et al., 2013).

Conceptualising Guardianship

The third element of RAT is the concept of guardianship. According to RAT, the absence of a capable guardian allows a crime to occur uninterrupted and occasionally without detection (Cohen & Felson, 1979). Guardianship is traditionally defined as the amount of protection provided by people and/or property which prevents criminal activity from occurring within that immediate scenario (Reynald, 2009). Environments with high levels of guardianship benefit from lower levels of crime. Guardianship is often divided into formal mechanisms such as the police and

law enforcement, and informal mechanisms of guardianship such as bystanders (Reynald, 2016). It is essential to examine the concept of guardianship in the context of IFSO as adult internet activity is relatively unsupervised (Wurtele & Kenny, 2016). Children and teenagers can benefit from parents interrupting offenders' online grooming or can have their online activity restricted by parental control software (Wurtele & Kenny, 2016). This is typically unusual for adult victims who are more likely to be independent and may consciously elect to meet new people online, increasing the likelihood of a motivated offender and a suitable target converging in time and space uninterrupted. Some more vulnerable adults such as those with learning disabilities (Borgström et al., 2019) may receive more supervision over their internet activities or alternatively, be more suspectable to falling victim to IFSO.

Reynald (2009) developed criteria to measure the effectiveness of guardianship. This consisted of four elements: visibility, availability, capability, and intervention. Visibility refers to whether the offender and/or victim is able to see the guardian; if so it could deter an offender or encourage a victim to reach out to them. Availability refers to the possibility that the guardian can act as a guardian and is not preoccupied with other tasks which may limit their capacity. Capability denotes the ability of the person and/or property to act as a guardian. Finally, intervention refers to whether the guardians can interrupt the offence and startle the offender. This can be used to assess whether guardianship is operative in the online and offline worlds.

Kao et al (2017) identified that online guardianship can be found in three main types: other platform users for offences taking place in public forums, webmasters (staff monitoring the specific sites in question) and police officers who have the power to investigate, intervene and prevent online crimes. However, it is important to remember that most sexual offences are not reported to police (Rape Crisis, 2022). Further, due to the vast size and scope of the internet, the nature and level of monitoring will vary according to each specific medium be it a dating site, social media or chat room (Marcum et al., 2010). Although a majority of online conversations are undertaken in a 1:1 private capacity, the potential online monitors could include network administrators or systems security staff (Yar, 2005). In most scenarios, action from online providers would rely on victims reporting their negative

experiences with offenders after the offence has occurred with little chance of interventions being possible as the offences are unfolding. It would be logistically unfeasible for online providers to monitor all online conversations occurring on their platform due to both high population counts and turnover (Jackson et al., 2006).

Using Reynald's (2009) typology as a criterion for measuring online guardianship therefore presents conceptual difficulties when applying this principle to online environments. This is because many online mediums are not monitored during the initial point of contact (Reyns et al., 2016). Options for online guardianship are therefore limited (Yar, 2005). Reyns et al (2016) suggested in their study that the term 'online guardianship' or absence of a capable guardian which has traditionally been associated with RAT may not be appropriate for online platforms. Instead, the terms monitoring, or supervision may be more appropriate to assess the level of surveillance digital platforms employ. One example of proactive initiatives has been taken by the dating site Match.com who now remove known and registered sexual offenders from their app (Echevarria, 2021). This is one example of an online guardianship or monitoring policy that could be adopted by other online providers. A criticism is that this practice relies on offenders already being registered, failing to prevent unconvicted or first-time offenders (Echevarria, 2021).

Offline Guardianship

As discussed earlier, IFSO consists of both online and offline contact; indicating that the many forms of guardianship which exist in the physical world could be influential in deterring/enhancing the ability for such a crime to occur. There is empirical evidence to support the effectiveness of guardianship in deterring sexual offences in the physical world (Beauregard & Leclerc, 2007; Ullman, 2007) or in some cases the severity of the offence if interrupted (Leclerc et al., 2015). Location will be a key factor in the offender's decision making as they wish to reduce the chance of interruption or detection (Pardue & Arrigo, 2008).

Komarzynska & Woodhams (2015) in their interviews with offenders cited a whole variety of reasons influencing selection of a location for in-person sexual offending, including: having access to weapons, the area being relatively isolated or having an obvious escape route. There is some further empirical evidence to support this claim

as NCA (2021) reported that 74% of offences took place within either the victim's or offender's private residence. Some offenders even reported to returning to the same locations, displaying a preference for familiarity and consistency in their offending patterns (Komarzynska & Woodhams, 2015). Crucially, a private residence would likely mean the absence of capable guardians able to intervene and prevent the offending. Komarzynska & Woodhams (2015) even reported how one offender explained he changed the location of his offending, as committing sexual offences in outdoor locations created considerable risk of apprehension.

Similarly, Beauregard & Leclerc (2007) cited how choice of so called 'hunting ground' or offence location was a key part of the offending process or planning. The authors cited how rational choice theory could be used to explain choice of crime location (likewise with victim selection). Risk of apprehension was cited as a key factor for many offenders in their decision making. In particular, the absence of potential eyewitnesses and low risk of traces of evidence being left at the crime scene were additional factors of consideration for planning of the offences. Some offenders who had previous convictions with the criminal justice system took care either to destroy forensic evidence or not to leave it behind at the crime scene (Beauregard & Leclerc, 2007). Location may be significant here as some offenders may ask the victim to bathe, requiring access to washing facilities so again private residence may be preferable. Here, the influence of RAT can be seen as the absence of capable guardians is significant when selecting crime locations to avoid the risk of detection or interruption.

Considering the guardianship element, Holt & Bossler (2008) suggested in their study of student cybercrime victimisation that living in residences with multiple occupants could act as a form of guardianship. Living alone may offer more privacy but also increases the chance of an offender having easy access to a victim in a more isolated location, away from potential guardians. They also suggested that being accompanied by someone when meeting a date for the first time could be considered an act of guardianship (Holt & Bossler, 2008). More recently, Gillett (2018) observed how female internet daters often shared their location of first dates with friends as a safety precaution. This holds the possibility that these individuals could act as guardians if they become worried about their friend's safety or whereabouts and

potentially prevent or interrupt an offence. Whilst these arrangements may reduce risk amongst some female friendship groups, the victim could still be victimised later after they have given their friend the 'all-clear'.

Another form of guardianship which exists in the physical world is the role that bystanders can have, if the offence takes place in a public area or shared accommodation (Cook et al., 2021; Leukfeldt & Yar, 2016). These individuals could play an active or passive role. They could intervene to stop an offence or maybe deter an offender through their known presence in the immediate setting. As Reynald (2009) cites, guardians must be visible, available, capable of monitoring and able to intervene when necessary.

A key aspect of IFSO is that offenders may have some input over the meeting location in the physical world (Dietzel, 2021). In online conversations, a mutual decision may have been reached by both offender and victim over where they will meet. An offender may suggest a known location wherein he can complete the offence without interruption e.g. his home. The offender may be able to create a scenario where no capable guardians are present (Pedneault & Beauregard, 2014). Alternatively, the meeting point may be more public but later the victim can be lulled to another location where the offence can take place.

Online Proximity

One of the recent features that can be available through digital platforms is the Global Positioning System (GPS). This new feature which is often available on many dating apps such as Grindr allows users to track each other's locations and trace their whereabouts (Pooley & Boxall, 2020). The different media vary in how they update a user's location; some will notify the general area the user is in (Bumble) whilst others such as Grindr will estimate the distance between two users who are within range (Veel & Thylstrup, 2018). Social Media sites such as Snapchat also share users' locations (Zreik, 2019). RAT and LEP has long cited the relevance of location in criminal offences as closer proximity to a motivated offender increases the likelihood of convergence, resulting in a higher chance of criminal activity (Pardue & Arrigo, 2008) and reducing the effort (Pal, 2007). The internet can assist users in overcoming some of the obstacles associating with living distantly from one another

as conversation and exchange of material can take place remotely as well as leading to arrangements to meet in-person. However, geographical proximity is still significant in online dating as in-person meet ups are usually the main goal (Rosenfeld & Thomas, 2012). The public revelation of users' locations could lead to scenarios where the offender stalks the victim and finds them off-guard in a private location where they are able to offend, despite never having interacted before, resulting in surprise or 'blitz rapes' as well as confidence approaches. A blitz rape is an ambush assault which takes place with no prior contact (Silverman et al., 1988). This contrasts with a 'confidence' approach where an offender will approach the victim in a non-violent capacity before later initiating the offence. This demonstrates how the internet has created an environment more conducive to offending as motivated offenders are able to identify suitable targets based on proximity; a novel feature which has only emerged due to technological advancement in recent years.

The Role of Anonymity and Online Disinhibition

Another characteristic associated with online environments is thought to be the greater levels of anonymity they are often thought to provide to users. Cooper (1998) outlined three features which characterise internet usage: the greater level of anonymity the internet provides, the accessibility of the internet, and thirdly its relative affordability. This has become known as the Triple A Engine. According to Cooper (1998), anonymity refers to the belief one is unknown online and is thought to lead to an increased sense of freedom. Accessibility relates to how easy and convenient it is to open the internet, with affordability emphasising how cost-effective the internet is with the majority of websites being free to use. Subsequently, many authors have observed how these same factors facilitated criminal activity such as internet-initiated child sexual offences (Kloess et al., 2019; Taylor & Quayle, 2008).

Traditionally, anonymity has been defined as namelessness, the belief that one is unknown to others (Cooper, 1998). However, online offenders may not be as anonymous as they believe as law enforcement and operational staff at the site in question can have the means to identify them. It may also be beneficial to separate out anonymity from the victims compared to anonymity from law enforcement. Instead, Hite et al (2014) refer to perceived anonymity, with offenders believing they

are unidentifiable regardless of whether they are being monitored covertly. The key distinction here is offenders' beliefs about the perception of anonymity are more important than whether offenders are truly anonymous as they behave accordingly.

For offending populations such as IFSO's, perceived anonymity may contribute to their offending as these individuals carry less fear of being detected (Zhong et al., 2020). On dating sites such as Tinder there will likely be a record of all prior conversation the offender may have had with the victim (ABC news, 2020). However, offenders can make use of Tinder's 'unmatch' feature which allows users to remove any evidence of contact with victims, thus maintaining their anonymity and assisting them in avoiding detection (Pooley & Boxall, 2020).

Another disadvantage of online anonymity for victims is that deception is much easier to maintain in online mediums (Scannell, 2019). This can lead to users being misled. It has been observed that online users can deceive potential victims in online dating scenarios to make themselves more attractive. Users can lie about their personal characteristics (e.g. height or age) or can lie about their intentions with the victim (Scannell, 2019). The level of distance and technical features provided by online media allow users to present themselves in any way; with some platforms not even requiring users to upload a photo of themselves (Vlad, 2020). This assists offenders with the process of securing the in-person meeting, crucial for the offence to be conducted.

The victim may only learn they have been deceived when they encounter the person face-to-face. When victims and offenders eventually meet offline, the offender will lose some of their anonymity. Even if the victim does not know their full name, there is the risk of their face being identified in an identity parade (Soukara, 2020). Other implications of online anonymity are that it could lead to offenders creating multiple false identities to manipulate victims. This was found in the case of Glenn Hartland in Australia, an IF sex offender who created many profiles on multiple sites to approach women before sexually assaulting them in-person (ABC News, 2020).

In terms of behaviour, perceived anonymity can also lead to deindividuation of users. This is where internet users become less self-aware and then fail to regulate their behaviour as usual. Wu et al. (2017) found a direct link between online anonymity

and subsequent behaviours such as deindividuation and so called ‘toxic disinhibition’. This is referred to as ‘The Online Disinhibition Effect’ (ODE) (Suler, 2004). It has been observed that many individuals display uninhibited behaviour when interacting online for example, disclosing personal information.

NCA (2016) state that because of the ODE; victims may not view the offender as a stranger, even though they have never met in-person. Additional statistics from the NCA support this view. The NCA (2016) reported that in 43% of IFSO cases the first face-to-face meeting between offender and victim took place within one week of first contact online. Also, in 41% cases, the victim and offender started their date at a private residence. The internet and the invention of mobile dating apps appears to offer another quick and convenient way of dating (alongside approaching victims in the physical world) with online conversations sometimes transitioning quickly to offline meetings. This is because users can now organise dates on the go and could be considered an example of the online disinhibition effect.

Conclusion

To conclude this chapter, RAT has been demonstrated as an effective theory for examining IFSO. It provides a structure and a lens to examine the phenomenon in 3 main stages from which other theories can be referred to. In terms of motivation, the Knight & Prentky (1990) typology was exploited which gave 4 primary motivations for why sexual offenders commit their crimes: opportunistic reasons, pervasively angry, sexual, and vindictive. Here, it was deciphered that the internet may have created new opportunities for sexual offences as offenders can now utilise the many digital platforms to arrange to meet victims.

Next, the role of victimology was considered through the acronym VIVA with the author able to identify several risk factors which made certain individuals or populations more vulnerable to falling victim to IFSO. These included: women, adolescents and young adults, LGBT people and those who disclose intimate details or images. Victim selection theories were also mentioned such Rational Choice Theory outlining the thought process of many offenders.

Later, the role that the online environment creates for victims and offenders was discussed. This included the Triple A engine, the problems associated with conceptualising guardianship for the online world, the role of guardianship in the physical world, the ability to determine an individual's proximity online, perceived anonymity and online disinhibition. These factors have all coincided to create an environment where sexual offending can occur; from the initial online approach to the in-person sexual offence. This has happened simply due to the dramatic technological advancements over recent decades and the increasing use of internet in people's everyday lives. Users' online lifestyles and routine activities may increase the risk of victimisation due to greater likelihood of conversing and interacting with strangers online.

The implications of this thesis are that the identification of the most vulnerable groups can assist in the creation of targeted interventions aimed at them (Foshee et al., 2016). Policy and practice can be better tailored to ensure effective messaging aimed at individuals most likely to encounter IFSO. Such measures could prevent some IFSO's. RAT has been proved to be a useful theory for examining IFSO as it outlines the essential elements that must exist for IFSO to occur. It is noteworthy that for internet facilitated crimes the stages in which it occurs are non-linear (Yar, 2005). For example, motive is unlikely to precede access to the online environment. In addition, RAT provides a structure for other theories to be cited as well, which may be more able to explain what motivates these offenders to commit IFSO. In future, it is probable that RAT will continue to be used for research on sexual offending in this area.

Chapter Two: What is known about Internet Facilitated Sexual Offending against adult victims? A systematic review.

Abstract

Background: While a considerable body of research has amassed regarding the use of the Internet to facilitate the sexual abuse of children, adult victims are largely neglected, in comparison. Recently, there has been some concern from investigators about the rise in sexual offences associated with online dating.

Objectives: A systematic mapping review about the Internet facilitated sexual offending (IFSO) of adults was therefore conducted to collate and quality assess the relevant studies in this under researched field.

Data Sources: The studies identified were heterogenous in design: some qualitative, some quantitative, some conducted with victims and/or offenders, others conducted with investigators of IFSO.

Study Selection: An initial search of the literature identified 10,212 articles; of which just 16 met the inclusion criteria for this review.

Data Synthesis: Data were extracted into a summary table and a quality assessment was performed using the Mixed Methods Appraisal Tool (MMAT).

Conclusions: Key findings from the review include discovering that Internet can be used before, during and after the offence, that the examination of offending behaviour revealed a heterogeneous population and highlighting the numerous challenges that practitioners face when investigating these types of offences. Implications for further research are discussed at the end with IFSO becoming an ever-present threat for online daters.

Background and Context (Introduction)

Recently, there has been an increase in the number of reported sexual offences associated with meeting through online mediums (National Crime Agency, 2016). The NCA (2016) reported a six-fold increase in the number of sexual offences initiated through online dating between the years 2009 and 2014. Additionally, Ofcom (2022) calculated that one in ten online British adults visited an online dating service in September 2021. They reported that adults aged 25 -34 years were the most likely to use dating sites with 19% of this age group having an online profile. Tinder was the most popular platform of choice in the UK especially with younger people. 8% of adults aged between 18 and 34 used Tinder in September 2021. The common usage of these platforms combined with the significant increase in the number of offences associated with them indicates that Internet facilitated sexual offences have now become a real threat for online users. These are serious offences which cause immense long term physical and psychological damage to victims and create a culture of fear associated with meeting strangers and potential dating partners (Singh et al., 2015).

Much research into sexual offences that occur online has focused on the grooming of children where suspects use the Internet to approach their victims (Shelton et al, 2016). However, it is now known that adults can fall victim to sex offenders who use the internet. It is essential to study this phenomenon as a separate offending population to capture any differences in victim or suspect behaviour. Little is known regarding the overall prevalence of IFSO victimisation among the wider adult population, as well as offending behaviour, victim behaviour and which social groups are most likely to fall victim. It should not be assumed that research published on child victimisation is automatically transferrable to adult victimisation. Other research gaps include the lack of consistent terminology to describe these offences and the many challenges this complex phenomena pose to investigators. The purpose of this review is therefore to collate, and quality assess all the relevant empirical studies available on Internet Facilitated Sexual Offending (IFSO) to assist stakeholders, such as investigators (Police and NCA) and victim support groups, in their operational work. This will also provide a foundation for other researchers to conduct their own

empirical studies through the identification of evidence gaps and identification of research limitations.

The research question that the review aimed to answer was examining the nature and extent of the academic literature on the topic of Internet Facilitated Sexual Offending (IFSO) of Adults.

Method

The first stage of this review was to conduct an initial scoping search to ensure there was an existing literature to be reviewed and a search was conducted on the Cochrane library of reviews with no similar reviews being registered. The scoping search was conducted using Google Scholar and confirmed there would be sufficient papers to continue with the review. The second aim of the scoping search was to identify the key terms used in the literature to describe the phenomenon of Internet-approached sexual offences.

The search terms selected for the search strategy combined the terms ‘Internet’, ‘Facilitated’ and ‘Rape’. Subsequently, synonyms, truncation and Boolean terms were exploited to maximise the number of hits. This resulted in a final search entry of: (Internet OR Digital OR Online OR Technology OR Dating App* OR Dating Site* OR Mobile *Phone OR Cell *Phone) AND (Facilitated OR Assisted OR Enhanced OR Aided OR Initiated) AND (Rape* OR Sex* Offen* OR Sex* Assault OR Sex* Violence OR Non-consensual Sex OR Indecent Assault). Search limits applied included a date range from the year 2000 to 2022 and for studies to be published in the English language. The date range was set as IFSO emerged as a phenomenon after the year 2000 with results prior to this likely to be false hits.

To determine which studies would be included in the review, eligibility criteria were developed as follows: a) studies had to include adult victims of sexual offences (18 years+), b) victims had to be approached or located online prior to the offence, c) the sexual offence itself must have been committed in-person, d) studies where the victim and offender had a stranger or short-term dating relationship, e) the paper must have included empirical data (qualitative or quantitative data) and f) have been published in the English language. The stipulation of being written in the English language was included because there were not appropriate resources available to

translate papers into other languages. Stranger or short-term dating relationship were both defined as individuals not knowing each other prior to Internet contact. This is to ensure the offence can truly be determined as an IFSO; not a person known to them prior to online contact.

This review intended to locate all relevant empirical literature on IFSO by conducting a comprehensive search. Searches were undertaken on the 27th January 2022 and were conducted across 6 databases: JSTOR, ProQuest, EBSCO, PsycNET, Scopus, and Web of Science. These databases were selected to provide a breadth of disciplines to maximise the chances of locating all relevant articles on the topic. The particular databases chosen correspond to the most relevant disciplines for the study in question: Social Sciences, Health and Nursing.

The searches on databases resulted in 10,513 hits, with 301 duplicates being removed leaving 10,212 hits. Following checks of title and abstract, this resulted in a remaining 186 articles for full-text review (see Figure 1 on page 6). The full texts were accessed to determine suitability by applying these criteria again, with 9 articles deemed relevant for inclusion. Following the database searches and subsequent screening, hand searches of reference lists of articles that met the inclusion criteria were conducted to maximise the chances of locating all relevant articles. This resulted in a further 7 articles being included in the review. It is believed the use of alternative ways of describing IFSO was responsible for why these 7 articles were not retrieved from the databases, In total, 16 were included in the review. Searches were not re-run due to concerns over time restraints.

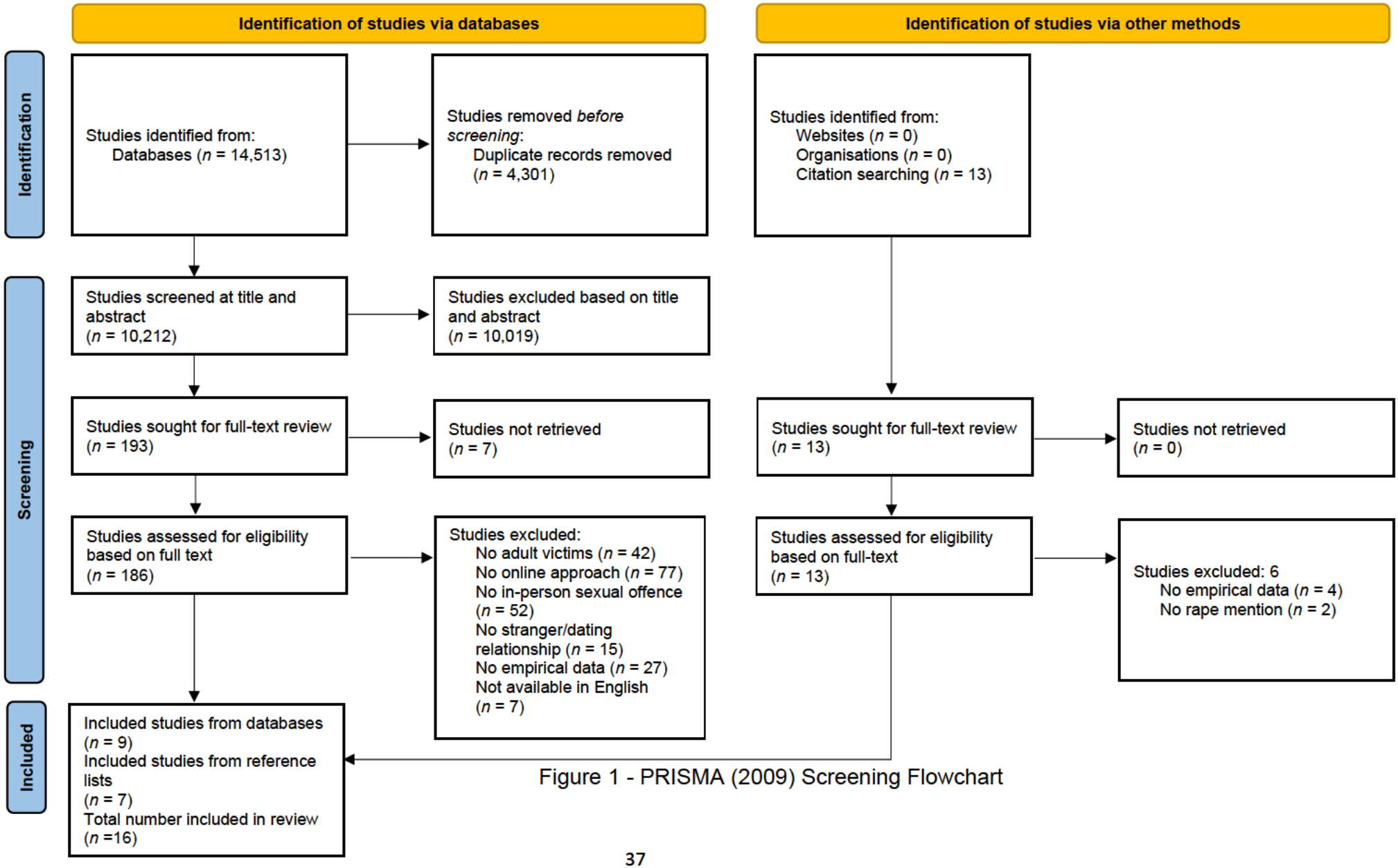

Figure 1 - PRISMA (2009) Screening Flowchart

Data Extraction

In terms of research design, 12 of the 16 articles were quantitative with 4 being qualitative. Data were extracted from the 16 papers using a standardised template created by the author to record all the relevant descriptive information about the study along with the key findings. This was developed to be suitable for both qualitative and quantitative studies.

The information extracted included authors' names, date of publication, country the data were collected in, the focus of the study, method, type and number of participants included study design and findings. Information recorded would allow new researchers to locate the correct studies and provide a comprehensive overview of the study at hand and its unique characteristics. Studies may have reported other findings but the only findings which were extracted related to IFSO (see page 93 for blank copy of data extraction table).

Quality Assessment

The Mixed Methods Appraisal Tool 2018 (MMAT) was selected for quality assessment because it is a critical appraisal tool constructed for reviews which have incorporated both qualitative and quantitative elements (Hong et al., 2018). This reflects the current position of the literature on IFSO; with authors' approaches to this topic being heterogeneous in design. The MMAT has evaluative questions laid out separately depending on study design. Studies included were assessed under two different sets of questions: qualitative or quantitative descriptive. Any information relating to the topic of IFSO was extracted from each paper and summarised in either numerical or written form. The MMAT (2018) discourages authors from providing numerical scores for each study, instead suggesting more detailed presentation for each criterion. This will be reflected in the form of a quality assessment table. Pace et al., (2012). conducted a study to determine the reliability and efficiency of the MMAT and found promising results. They found that agreement between authors was moderate to perfect in relation to the MMAT criteria and across the quality assessment there was much agreement. They believed further development should be conducted using the MMAT as a framework for mixed methods research. This provides substantial support for the use of MMAT in this review.

Results

In this section, summary tables describing the studies included in the review are presented (see Table 1) alongside quality assessment scoring for each study (see Tables 2 and 3).

Table 1 – Summary of the studies included in the review

Authors	Year	Country	Data	Focus	Method	Study design	Findings
Almond, McManus, & Chatterton	2020	UK	144 offenders (M=144, F=0)	Examined IFSO through police records of offending behaviour. Explored the various platforms used by IFSO offenders to solicit their victims examining whether any differences in discreet behaviors exist. Compared behaviours observed in IFSO vs. non-IFSO offences. Compared offending behaviour in terms of the approach used by the suspect: IFSO, confidence and surprise.	Secondary Data Analysis	Quantitative	No significant differences between offenders who used social media or dating apps to approach victims. IFSO and confidence approach rapists were very similar, but were different from surprise approach rapists in terms of the frequencies and occurrences of crime scene behaviours. SSA revealed 3 distinct themes of behaviour within IFSO: Violence, Interpersonal Involvement, Criminal Sophistication. These themes are also found in non-IFSO offending populations. 71% of offenders in the sample displayed one dominant theme overall.
Bluett-Boyd, Fileborn, Quadara & Moore	2013	Australia	46 professionals within the the criminal justice system (no gender information available)	Examined the role of emerging communication technology in young peoples' (aged 13-25 years) experiences of sexual violence.	Case studies, interviews and focus groups	Qualitative	Technology has dual purposes, being advantageous to everyday users and offenders by making victims more accessible. Technology was used before to facilitate the offence, during to record the offence and after an act of sexual violence to discourage the victim from reporting.

							The researchers identified challenges and areas of improvement: the need for the CJS to evolve with the ever-changing technology to improve the investigation of IFSO.
Boillot-Fansher	2017	USA	1,445 undergraduate students between 18 and 30 (F=882, M= 563)	Examined “risky” behaviours of young adults associated with online contact through dating apps and subsequent offline behaviours.	Survey	Quantitative	105 participants or 8.02% of the sample reported experiencing a rape following online approach.
Centelles	2019	USA	545 undergraduate students aged 18-64 (F=398, M=147).	Examined correlates of dating application use and various forms of victimisation.	Survey	Quantitative	13 participants or 4.01% of the sample reported that they were forced into having oral sex without consent. 16 participants or 4.94% of the sample experienced penetration or attempted penetration without consent. Factors which predicted in-person victimisation to a degree of significance included: number of matches, distance visibility, being in a casual relationship (looking for hook-ups), gender (being female). These data included cyber-stalking as well as IFSO. In terms of theoretical implications, the findings showed

							mixed support for Lifestyle - Routine Activity Theory, substantial support for self-control theory, and no support for self-efficacy theory.
Choi, Wong & Fong	2018	Hong Kong	666 dating app users with a median age of 20 (F=360, M = 296).	Examined the association between the use of dating apps and sexual abuse of males and females.	Survey	Quantitative	For dating app users, the 1-year prevalence of sexual abuse was 12.4%. The lifetime prevalence of sexual abuse was 14.2%. The authors found that dating app users were more likely to be victimised over the span of a year than non-users. Using dating apps was also a lifetime risk factor for sexual victimisation.
Cripps	2016	Canada	103 undergraduate female students (18-35 years)	Examined the nature and prevalence of Technology-Facilitated Sexual Violence on undergraduate women and their wellbeing.	Survey	Quantitative	8% of the sample (*n*=6) reported being the victim of a sexual offence initiated via the Internet. They found Technology Facilitated Sexual Violence (TFSV) predicted 26% of the variance in depression ratings (*M*= 10.93, *SD*= 12.80). Negative symptomatology was predicted by the combined effects of multiple victimisations.
Dietzel	2021	Canada	25 participants who self-identified as MSM dating app users (aged 18-62 years)	Examined the experiences of MSM (men who have sex with men) who have been victimised by individuals met through dating apps.	Semi-structured interviews	Qualitative	Most participants defined consent in terms of agreement. Participants used the word “mutual” to describe the reciprocal nature of sexual activity. Crucially, noting that the process of negotiating consent is ongoing, taking place online and offline.

							These negotiations mimic the two elements of IFSO offending: the initial online approach and the subsequent in-person interaction. Participants reported that users often imposed their sexual desires onto others without consent. Presumptions were made based on users' profiles with users feeling pressured into having sex. Participants spoke of this behaviour extending from the app to in-person as well.
Fansher & Randa	2019	USA	1310 students (F=799, M=511) (Age range not recorded)	Explored the nature of and risks associated with social media in interpersonal relationships.	Survey	Quantitative	2.05% experienced sexual assault (exclusively through someone met via social media).
Gilbert, Sarvet, Wall, Walsh, Reardon, Wilson & Mellins	2019	USA	253 undergraduate female students (no age range provided)	Examined the situational contexts and risk factors associated with sexual assault of women (either incapacitated or nonincapacitated)	Survey	Quantitative	12 students or 4.8% of students reported being the victim of a sexual assault through dating apps. Meeting an offender through a dating app was associated with nonincapacitated sexual assault incidents. They also reported that the perpetrator was more likely to use verbal coercion or physical force to obtain sex than those who did not use dating apps.

Gillett	2021	Australia	17 female victims (aged 18-30 years)	Explored the experiences of women on dating apps in relation to safety and sexual violence.	Online ethnography, content analysis and semi-structured interviews	Qualitative	Discussed how women use Tinder's safety features, how women assess men's Tinder profiles, the role of cross-platform convergence with other mediums, and how women negotiate safety for in-person encounters. This included: using the 'unmatch' feature on dating apps, reporting nuisances online to providers and leaving the app altogether.
Kennedy & Taylor	2010	USA	354 college students (F=214, M=140) Average age was 22 years.	Examined the prevalence of victimisation occurring through social networking sites. Information was also sought on the Internet behaviour of college students.	Survey	Quantitative	26.1% of females self-identified as in-person sexual assault victims through someone met online via social media. Furthermore, 4.3% of the male participants reported being sexually assaulted by someone met via social media.
National Crime Agency	2016	UK	163 Rape cases (offences)	Examined the nature and prevalence of sexual offences linked to online dating through police data.	Secondary Data Analysis	Quantitative	This report identified a number of key trends: For 54% of cases there was prior communication of a sexual nature. In 43% of cases, the length of time between first contact and first face-to-face meeting was less than one week.

							In 41% cases, victims initially met perpetrators in person at a residence and 75% victims were assaulted at a residence. For the 163 cases, there were 152 named suspects. 51% had no prior convictions.
National Crime Agency	2022	UK	671 rape cases (offences)	Provided an updated report of various trends relating to sexual assault associated with online dating.	Secondary Data Analysis	Quantitative	This report identified a number of key trends: There was an increase in the proportion of cases that were facilitated through online dating from 6% in 2017/2018 to over 10% in the year 2020/2021. This was attributed to Covid-19 and it's unknown whether this trend will continue. Age and Gender: similar but with a significant increase in number of victims aged 19 and under (from 12% to 22%). Increase of male victims from 25% to 31%. Offence Locations: Similar to 2016 report: 42% started their date at a residence and 74% of offences committed at a private residence.

							Named Suspects and Previous Convictions – 47% of suspects had a prior conviction compared to 54% of all named suspects on SCAS database.
Powell & Henry	2018	Australia	30 investigators. This includes 12 police officers with experience with sexual offenders, 8 legal services stakeholders and 10 domestic violence and sexual assault service sector stakeholders.	Captured and examined police and service sector perspectives on IFSO. This includes benefits of technology, challengers for investigators and recommendations for reform.	Interviews	Qualitative	Discussed adult sexual assault and exploitation. This included the impact of victimisation on adult victims, the challenges associated with policing IFSO and ending with stakeholder recommendations for reform. For example, there were experiences where explicit images were used as a threat to prevents victims from reporting. Sometimes used as a way of coercing victim into meeting the offender in-person. Policing challenges included: cross-jurisdictional barriers, lack of cooperation from telecoms and internet providers, lags in technological development.
Powell & Henry	2019	Australia	2,956 Australian adults from the wider population	Examined the rates of Technology Facilitated Sexual Violence amongst adult victims in Australia.	Survey	Quantitative	11.1% (*n* = 315) of respondents reported experiencing an unwanted sexual experience with someone they first met online or 10.5% (*n* = 297) via a dating app.

			(F=1,480, M=1,452, Transgender=24), aged 18 to 54 years				
Shapiro, Tatar, Sutton, Fisher, Naz, Perez & Rosberger	2017	Canada	415 College students (F=365, M=50), aged 18-26.	Examined everyday Tinder use and its associations with so called 'risky sexual behaviours'.	Survey	Quantitative	Higher odds of reporting nonconsensual sex were associated with a history of Tinder use (OR =3.22). This study found that using Tinder was positively related to reporting more sexual partners and nonconsensual sex. This study also found higher likelihood of reporting nonconsensual sex in females and sexual minority groups but this is not unique to Tinder.

As described in the Method, the studies were assessed for their quality using the MMAT tool. To facilitate comparisons across studies with similar designs, the findings from the quality assessment are included separately in two tables, one for qualitative studies and a second for quantitative studies. All studies included were judged to be of sufficient quality for inclusion. A second person was recruited to independently assess the studies' quality. Their scores were confirmed for all sixteen studies included, validating the author's inter-rater reliability.

Table 2 – Quality Assessment of Qualitative Studies

Study	1.1. Is the qualitative approach appropriate to answer the research question?	1.2. Are the qualitative data collection methods adequate to address the research question?	1.3. Are the findings adequately derived from the data?	1.4. Is the interpretation of results sufficiently substantiated by data?	1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?
Bluett-Boyd, Fileborn, Quadara & Moore (2013)	Yes	Yes	Yes	No	No
Dietzel (2021)	Yes	Yes	Unclear	Yes	Yes
Gillett (2021)	Yes	Yes	Yes	Yes	Yes
Powell & Henry (2018)	Yes	Yes	No	Yes	Yes

Table 3 – Quality Assessment of Quantitative Descriptive Studies

Study	4.1. Is the sampling strategy relevant to address the research question?	4.2. Is the sample representative of the target population?	4.3. Are the measurements appropriate?	4.4. Is the risk of nonresponse bias low?	4.5. Is the statistical analysis appropriate to answer the research question?
Almond, McManus, & Chatterton (2016)	Yes	Unclear	Yes	Unclear	Yes
Boillot-Fansher(2017)	Yes	No	Yes	Yes	Yes
Centelles (2019)	Unclear	Yes	Yes	Unclear	Yes
Choi, Wong & Fong (2018)	Unclear	Yes	Yes	Unclear	Yes
Cripps (2016)	Unclear	Unclear	Yes	Unclear	Yes
Fansher & Randa (2019)	Yes	Yes	Yes	Yes	Yes
Gilbert, Sarvet, Wall, Walsh, Reardon, Wilson & Mellins (2019)	Yes	Yes	Yes	Yes	Yes
Kennedy & Taylor (2010)	Yes	No	Yes	Unclear	Yes
National Crime Agency (2016)	Yes	Unclear	Yes	Unclear	Yes
National Crime Agency (2022)	Yes	Unclear	Yes	Unclear	Yes
Powell & Henry (2019)	Yes	Yes	Yes	Yes	Yes

Shapiro, Tatar, Sutton, Fisher, Naz, Perez & Rosberger (2017)	Yes	Yes	Yes	Unclear	Yes

Additionally, quality assessment revealed the quantitative studies varied in terms of their quality. For many papers, it was determined that their sample size was unlikely to be generalisable to the wider population. This could be attributed to a mixture of sampling strategy and sample size. For four papers, it was unclear whether their sample size represented the target population (Almond et al., 2016; Cripps, 2019; NCA, 2016; NCA, 2022) and for two studies (Boillot-Fansher, 2017; Kennedy and Taylor, 2010) it was judged to be unrepresentative. Boillot-Fansher (2017) did use a systematic random sample of 1,445 students, it was only collected from one university. This means results can only be generalised to this one setting. The same was true for the Kennedy and Taylor (2010) study. The vast heterogeneity of study designs and results severely limited the author's comparison of findings.

Description of Studies

Sixteen studies were deemed relevant for inclusion in this review. Twelve adopted a quantitative approach and the remaining four were qualitative. Three of the quantitative studies examined the offending behaviour seen in IFSOs (Almond et al, 2020; NCA, 2016; SCAS, 2021) with the remaining nine collecting data on IFSO victimisation across various populations highlighting the prevalence rates of such offences (Boillot-Fansher, 2017; Centelles, 2019; Choi et al., 2018; Cripps, 2016; Fansher & Randa, 2019; Gilbert et al., 2019; Kennedy & Taylor, 2010; Powell & Henry, 2019; Shapiro et al., 2017). Two of the qualitative studies examined victim behaviour and experiences of this type of offence (Dietzel, 2021; Gillet, 2021). The remaining two qualitative studies explored the many challenges investigators face when dealing with IFSO cases (Bluett-Boyd et al, 2013; Powell & Henry, 2018).

Demographics of the Sample

Due to the heterogeneity of the different studies, it's not possible to provide characteristics of an amalgamated sample. The samples consisted of different participants: some were victims, some were offenders and the remaining participants were investigators. Demographic characteristics are therefore reported by type of study.

Quantitative Studies

There was a total sample size of 8,047 participants in the nine quantitative studies which solely focused on victimisation. Eight out of the nine studies examined prevalence rates of victimisation (Boillot-Fansher, 2017; Centelles, 2019; Choi et al., 2018; Cripps, 2016; Fansher & Randa, 2019; Gilbert et al., 2019; Kennedy & Taylor, 2010; Powell & Henry, 2019) whilst Shapiro et al (2017) reported a logistic regression analysis to investigate risk associated with Tinder use. Here, no descriptive statistics of IFSO victimisation were provided just results demonstrating an increased likelihood of victimisation risk with dating app use.

In terms of the gender of participants, 59% were female (*n* =4,825), 39.6% were male (*n*=3,187), 0.003% identified as transgender (*n*=24) and for 0.001% (*n*=11) the gender of the participants was not recorded. Similarly, the age range of participants across the nine studies was 18 to 64 but most of the studies (*n*=6) restricted the

sample to participants between the ages of 18 and 30 (Boillot-Fansher, 2017; Cripps, 2016; Fansher & Randa, 2019; Gilbert et al., 2019; Kennedy & Taylor, 2010; Shapiro et al., 2017). Most of these studies (*n*=8) recruited their samples from universities with undergraduate students forming the basis of their sample, the only exception being Powell and Henry (2019) who recruited via a population-wide approach. The sexual orientation of participants was recorded in just three of the prevalence studies (Cripps, 2016; Fansher & Randa, 2019; Powell & Henry, 2019). The average across these three studies was 13.2% of participants identifying as LGBT.

Offending Behaviour Studies

All three studies which examined offenders in their sample were based in the UK (Almond et al., 2016; NCA, 2016, 2022). The NCA (2016) collected data on 163 rape cases from 2003 to 2015 for which there were 152 named suspects. Little demographic information was provided for the named suspects. Some information on victims was collected with a majority identifying as female (85%, *n*=139) and a minority of victims being male (15%, *n*=24). The modal age group for victims was between 20-24 years old. This 2016 report was updated with new figures in 2022. In the updated report, the NCA (2022) reported that 83% of victims were female and 17% male, a slight alteration. In terms of age, the largest proportion of female victims were in the 20-29 years group (41%) but there was a reported increase in the number aged 19 or under (22%, up from 12%). A total of 671 offences were recorded in the latest report with 529 suspects. Limited information was provided on the demographics of these offenders as the majority were not convicted. The Almond et al (2016) study also consisted of offences (144 IFSO cases obtained via the NCA) but again limited demographic information on the suspects' characteristics were provided as the study focused primarily on offending behaviour.

Qualitative studies: Victims and Professionals

For the qualitative studies which focused on victim behaviour, the authors collected data from two different population groups. Dietzel (2021) collected data exclusively from 25 men who identified as LGBT who used online dating apps. These were all aged between 18 and 62 and based in Canada. In contrast, Gillett (2021) studied 17 Australian women who were between the ages of 18 and 30. They were all Tinder users living in Brisbane at the time. Both studies used semi-structured interviews.

For the qualitative studies that focused on the views of investigators, there was more limited demographic information reported (Bluett-Boyd et al, 2013; Powell & Henry, 2018). Bluett-Boyd et al. (2013) recorded the views of 46 different practitioners from criminal justice agencies (including police and prosecutions), judicial offices, education and youth policy organisations, youth advocacy services, and sexual assault services. No details were provided regarding the gender of participants or how many were from which agencies. Similarly, Powell and Henry (2018) interviewed 30 investigators in the field. They included 12 police officers who had experience with sexual offenders, eight legal services stakeholders and 10 from the domestic violence and sexual assault service sector. In terms of gender, eight were male and the remaining majority were female. No information was provided regarding the age of participants.

Descriptive Data Synthesis

Six themes were identified through the process of data extraction and consideration of the author's key aims and objectives: the multitude of terms used to describe IFSO, prevalence rates, offending behaviour (including offender demographics and the role of the Internet), victim behaviour (and demographics), correlates of victimisation, and, finally, challenges with IFSO. The findings of this mapping review are presented according to these six main themes.

Theme One: Multitude of Terms

One of the more challenging aspects of conducting the systematic review was determining the search terms to be used and the findings of the review evidence the multitude of different terms and conceptual definitions adopted by authors. The term 'Internet Facilitated Sexual Offending' was selected as the focus at the start of the review process as it refers specifically to cases for which there was an online approach but where the sexual offence was committed in-person, incorporating both elements as outlined in the author's inclusion criteria. While all the studies included in the review, therefore, met this definition, additional terms were used. These formed a hierarchy of terms which can be seen in Figure 2 with the broad umbrella term of 'Technology Facilitated Sexual Violence' at the top. While this term includes IFSO, it also includes other forms of technology beyond the Internet (e.g., mobile phone texting). Underneath IFSO 'Internet-facilitated rape,' and 'Internet-initiated

sexual assault' which are both forms of IFSO but are more specific in their definition, focusing on specific acts of sexual violence. Other definitions kept the acts of sexual violence within their remit broad (i.e., sexual violence in general) but narrowed the focus onto particular types of online medium (e.g., dating apps). This is the case with the term 'Dating App Facilitated Sexual Violence'.

While Figure 2 shows how these terms relate to one another, table 5 displays the various terms found during the systematic review with accompanying definitions and explanations, and the authors from the papers reviewed that used the term.

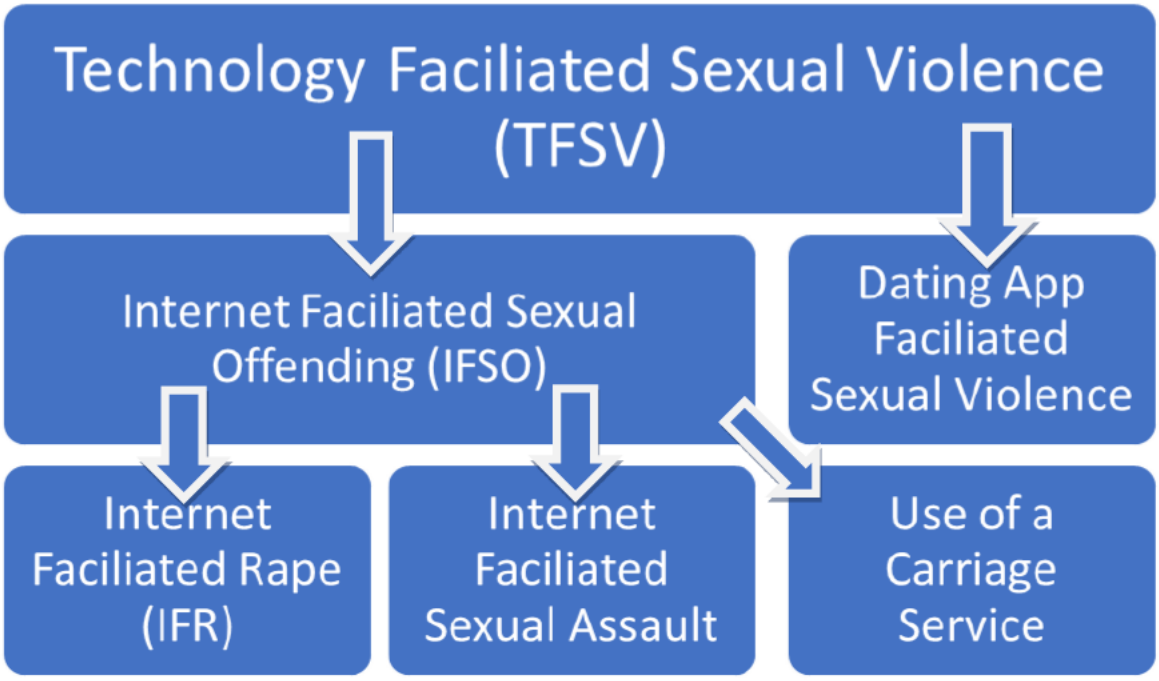

Figure 2 – Funnel Diagram of Terms

Table 4 - Multitude of Terms

Concept	Definition and Focus	Authors
Technology Facilitated Sexual Violence (TFSV)	This is a comprehensive and all-encompassing term describing many different forms of online sexual exploitation including: digital sexual harassment, image based sexual abuse, sexual aggression and/or coercion, and gender and/ or sexuality-based harassment (including virtual sexual violence). Powell and Henry (2019) referred to a total of 21 items with the authors'' definition of IFSO forming only one aspect of this term.	Bluett -Boyd et al. (2013) Cripps (2016) Powell & Henry (2018) Powell & Henry (2019)
Internet Facilitated Rape (IFR)	A narrow, more specific concept referring only to incidents of rape where the Internet was used to identify the person as a potential victim. Other forms of sexual violence are excluded.	Almond, McManus & Chatterton (2020)
Use of a Carriage Service	Similar to the term IFR, the term "carriage service" refers to how the Internet provides a	Boillot-Fansher (2017) Cripps (2016) (Cripps used two different terms)

	service for carrying communications for which offending can then be carried out in-person. It is crucial to note here the authors observed that sexual offending does not take place entirely online.	
Internet-initiated Sexual Assault	Similar to IFSO, this refers to acts of sexual assault more generally where the Internet was used to identify the victim beforehand.	NCA (2016) SCAS (2021)
Dating App Facilitated Sexual Violence	Here the authors have restricted analysis to cases where victims were approached on a dating app but have included other forms of sexual behaviour which take place online such as online-only sexual harassment and not just IFSO.	Centelles, (2019) Dietzel (2021)
No discrete term provided	Seven studies failed to use concrete/specific terms to describe this phenomenon instead this was deciphered from description within their methodologies.	Choi, Wong & Fong (2018) Fansher & Randa (2019). Gilbert et al (2019) Gillett, (2021) Kennedy & Taylor (2010) Shapiro et al. (2017)

The use of different terminology and conceptualisation makes studying the phenomenon of IFSO challenging for both researchers and practitioners in the field. The heterogeneity likely reflects cross-jurisdictional differences as well as different inclusion criteria. Some of these terms offer a streamlined specific definition; others more closely resemble an umbrella term. There is the potential for novel studies and/or reports to be missed, with vital findings neglected to be included in policy and/or practice efforts. In future, researchers should strive for greater uniformity of terms to ensure consistency and better retrieval of empirical studies.

Theme Two: Prevalence Rates

A key focus for eight of the included studies was the victimisation rate of IFSO among participants. Their key findings can be seen in Table 1. For all but one study, the participants were students. The highest prevalence rate was recorded by Kennedy and Taylor (2010) who reported that 26.1% of the female students sampled had experienced IF victimisation. In contrast, the lowest prevalence rate was recorded by Fansher and Randa (2019) who reported that 2.05% of the students sampled that had experienced IF victimisation. A figure of roughly 4.0% of the sample reported IFSO victimisation appeared to be the modal figure. Three of the eight prevalence studies reported this victimisation rate (Boillot-Fansher, 2017; Centelles, 2019; Gilbert et al., 2019).

Two of the prevalence sources focused exclusively on IFSO initiated through social media platforms (Fansher & Randa, 2019; Kennedy & Taylor, 2010). Three of the sources focused exclusively on offences initiated through dating apps (Boillot-Fansher, 2017; Centelles, 2019; Choi, Wong & Fong, 2018) whilst the remaining three did not discriminate between different platforms with victims being approached on any online medium (Cripps, 2016; Gilbert et al., 2019; Powell & Henry, 2019).

The sample size of participants across the study varied dramatically from just 103 participants in the Cripps (2016) study to 2,956 adults in the Powell and Henry (2019) study. Sexual Experience Survey was the most popular measure and was used by 4 studies to measure IFSO victimisation (Centelles, 2019; Fansher & Randa, 2019; Gilbert et al., 2019; Kennedy & Taylor, 2010). The sampling strategy was recorded for each study and they were conducted across four different jurisdictions (Australia, Canada, Hong Kong, USA).

Theme Three: Offending Behaviour

This section charts how the Internet can be used to facilitate sexual offending: before, during and after the offence. Three studies focused exclusively on offending behaviour (Almond et al., 2020; NCA, 2016, 2022) whilst others made reference to it in parts of their study (Bluett-Boyd et al., 2013).

Firstly, the Internet was proposed to act as a facilitator to sexual offending in the approach phase *before* the offence was committed in multiple ways (Bluett-Boyd et al., 2013). Facilitation took the form of increased access to victims, the role of perceived online anonymity, the influence of deception, the GPS tracking technology, blackmail and allowing offenders to adopt a confidence approach. These are explained in more detail below.

One of the ways the Internet can assist the process of IFSO is by providing greater access to victims. The Internet allows offenders to initiate contact with many victims at one time in a faster, more time efficient manner (Bluett-Boyd et al., 2013). There are also multiple avenues to be used to contact victims, for example, on a dating site or social media platform (Almond et al., 2016) A user profile on an Internet platform instantly makes victims easier to initiate contact with as it provides information about the victim allowing the suspect to assess vulnerability or providing a means to start a conversation.

Another advantage for offenders of using the Internet to approach victims is that it allows them to utilise a confidence approach (Almond et al., 2020). Not all offenders wish to ambush their victims in a surprise attack. Other offenders will initiate contact with the victim in a more approachable manner where the offence can be conducted at a later stage of the process (Silverman et al.,1988). The Internet allows an offender to exploit the numerous digital platforms available for this exact purpose while exhibiting similar behaviour to stranger rapists who do not use the Internet in their approach. Almond et al (2020) investigated whether the online medium used to approach victims was associated with other differences in offending behaviour. They found no significant differences in offending behaviour based on the approach medium. Those who used social media versus dating apps to identify victims expressed largely similar behaviours overall.

The potential role of anonymity in online offending was discussed by Bluett-Boyd et al. (2013). They observed that many offenders perceive online spaces as largely anonymous and a space where they can avoid detection. This perception is often false in reality but this distorted belief may still be a contributing factor for IF sex offenders. It was reported that many offenders viewed online spaces as an environment which was 'unpoliced' (p.29). Many also spoke of a 'detachment process' which can occur online whilst using technology (p.29). This was not discussed in great detail. Consequently, the level of anonymity provided by the Internet and its role in facilitating sexual offending is still unclear and in need of further study.

How deception can facilitate online sexual offending was also discussed. Bluett-Boyd et al. (2013) reported that offenders can create fake profiles and give false information to victims to lure them in. This can lead victims to feel a false sense of intimacy in the initial online exchanges. However, these authors clarified that many cases they dealt with involved no deception over the offender's identity. The level of deception and the frequency of its usage in facilitating offending was therefore unclear.

Another feature of the Internet used by suspects in their offending that was identified by Bluett-Boyd et al. (2013) was the ability to use GPS to locate specific victims' address and whereabouts. This can be done by using information freely posted on social media, via geo-tagging of photos, or using the GPS tracker device which is available on certain platforms (Bluett-Boyd et al., 2013). This would allow offenders to pinpoint the location of potential victims.

Lastly, the literature also identified the use of blackmail by offenders in IFSO (Powell & Henry, 2018). In early online conversations, victims may have sent sexually explicit images or videos of themselves to other users. The threat from the suspect of publicly revealing these private exchanges can be effective enough to coerce the victim into sending more explicit material or to meet the offender in-person where the victim is then sexually assaulted.

As well as being utilised before the offence occurs, the Internet and technology are used during the offence by the suspect. For example, it is now possible for an

offender to record the offence whilst conducting it. According to Bluett-Boyd et al. (2013), one rape offence was broadcasted live.

As well as considering IFSO as single category of sexual offending, one study considered heterogeneity *within* IFSO. Almond et al. (2020) analysed how offending behaviours expressed at the crime scene by sex offenders using the Internet cluster together to form themes. They identified three distinct themes of behaviour: Criminal Sophistication, Interpersonal Involvement and Violence. Criminal Sophistication is thought to show the level of knowledge of forensic science and experience with the criminal justice system an offender has. Violence is thought to express the level of anger and hatred the offender is experiencing and inflicting on the victim, and Interpersonal Involvement is associated with using victims to achieve intimacy. How these offenders interact with the victim may reflect the type of fantasy they have, influencing the type of approach they adopt. 71% of offenders displayed one dominant theme overall. This analysis has therefore revealed that suspects perpetrating IFSO are not homogenous in their offending behaviour.

Comparisons in crime scene behaviour have also been made between sex offenders who use the Internet in their offending versus those who do not. In one study (Almond et al., 2020), offenders were distinguished based on how they approached the victim: either 1) using the Internet, 2) using a confidence approach in-person, or 3) using a surprise/blitz approach in-person. Sex offenders using the Internet and in-person confidence rapists displayed similar offending behaviour. One significant difference though was that IFSOs were more likely to develop a “prolonged relationship” with the victim (39%) compared to the offline confidence rapists (16%), and were also more likely to self-disclose to the victim (75% compared to 59.7% for offline con-rapists) but this difference was not statistically significant. There could be multiple reasons for this observation. The prior online conversations may have created more opportunities for self-disclosure, with a sense of intimacy between the offender and victim and so the offender may have felt more comfortable disclosing personal information and feelings to their victim.

In contrast, several significant differences were reported between surprise rapists who did not use the Internet and rapists who did use the Internet (Almond et al., 2020). Surprise rapists, by definition, use an ambush approach, suddenly

overpowering their victim (Silverman et al., 1988). Surprise rapists appeared to show more signs of violence and criminal sophistication with specific behaviours that were more common to surprise rapists being “verbally threatens the victim,” “wore gloves,” “displayed a weapon” and “threatened the victim with a weapon”. In contrast, rapists using the Internet displayed more signs of intimacy and interpersonal involvement with their victims. Behaviours associated with IFSOs included: “self-disclosure,” “kissed victim’s face,” “offender refers to prolonged relationship,” “compliments the victim” and “curiosity about victim.” Again, some of these differences could be attributed to the prior contact they had the victim, being more likely to perceive their offence as a pseudo-intimate relationship. Online conversation may have wrongly created expectations in the minds of offenders about receiving sex in the early stages of dating (NCA, 2016).

Another key area of differentiation lies in the offenders’ recorded criminal history (NCA, 2016): 49% of IFSO suspects had previous convictions compared to previous research in which 85% stranger rapists who had not used the Internet to approach victims had previous convictions of some kind. However, when this report was updated by the NCA in 2022 these figures had altered: now 47% of suspects for IFSOs had previous convictions compared to only 54% of all named suspects on NCA’s databases. At this stage, it is difficult to establish why this is so. It could be that online media have allowed individuals with no prior criminal history or experience to offend for the first time. Alternatively, IFSO’s may display criminal behaviour less typical than for offline rapists and so consequently are less to be reported/convicted.

Almond et al (2016) also considered the behaviours of rapists using the Internet that occurred post-assault. Some offenders apologised to the victim after the offence and this was more associated with offenders who had approached victims via social media rather than a dating site. This behaviour was interpreted as a sign of interpersonal involvement. Other offenders forced the victim to bathe after the offence, destroyed forensic evidence or stole property from the victim (Almond et al., 2016). These behaviours are more closely associated with criminal sophistication, displaying knowledge of forensics and previous criminal justice experience in their offences. This further demonstrates the heterogeneity of behaviour expressed at the crime scene by different rapists who fall within the broad category of IFSO.

Technology can also be used to abuse and intimidate victims post assault (Bluett-Boyd et al., 2013). The Internet and its associated mediums remain ever present long after the offence is completed and can be used to contact the victim. Online platforms can be used to threaten and monitor the victim to discourage them from reporting the offence, can be used to smear the victim after they have reported the offence, and to circulate images and/or video recordings of the offence. This would further exacerbate the negative impact of the offence on the victim's wellbeing and can create feelings of shame. Victims feel further exposed and violated (Bluett-Boyd et al., 2013).

Theme Four: Victim Behaviour

In terms of demographics, the NCA (2016, 2022) reported that 83% of victims of offences were female with 17% being male. In terms of age range, 41% of female victims were in the age range 20-29 years old. SCAS (2022) reported a significant increase in the proportion of female victims aged 19 or younger from 12% in 2016 to 22% in 2022, and a similar increase for male victims from 25% to 31%. These increases could be attributed to more younger people utilising online dating services (Centelles, 2019).

In relation to safety precautions and risk, 41% of victims met their date (who later become their offender) at their private residence (NCA, 2016). NCA (2022) reported that 74% of offences were committed at the victim's or offender's residence. The sharing of location between strangers could show how prior online interactions can create a certain level of trust between online daters.

In their paper, Bluett-Boyd et al. (2013) observed how significant technological changes had subsequently led to changes in social and cultural norms that could facilitate sexual offending. For example, digital technology has become much more widespread and consequently more accessible (Bluett-Boyd et al., 2013). Technology has become more embedded into people's lives and many use the Internet regularly. Users are now more connected than ever before and therefore are easier to contact, creating new opportunities for victimisation. Prospective victims are now able to be contacted at any time or place (with wi-fi) and on multiple devices.

Technology has also created new ways in which users interact with one another (Bluett-Boyd et al., 2013). Some of the investigators they interviewed believed

technology had shifted boundaries about what is considered acceptable behaviour both online and offline. Some of Bluett-Boyd et al.'s (2013) participants reported that the Internet has created a virtual space with its own norms and etiquette, although participants did not specify what this etiquette was. They believed the Internet had created a sense of distance in communication which when combined with instantaneous messaging could facilitate harmful online behaviour. It was not explained how this proposed notion of disinhibition extended to the following in-person encounters though (i.e., when the sexual offence occurred). Instead, the authors argued that online social norms and etiquette overlapped with offline etiquette due to the increasing intersection of the two spaces. Bluett-Boyd et al. (2013) argue these spaces are now not entirely separate from one another.

A further way of using the online environment (Gillett, 2021) by victims and offenders was to learn more about the person with whom they were interacting. This phenomenon is known as Facebook or 'Cyberstalking' (Gillett, 2021). Previous studies have focused heavily on offenders cyberstalking their victims to aid in planning their offences, however, Gillett reports victims using a person's social media presence to confirm their authenticity and in turn deciding whether to meet them in-person. Users will look for evidence of online deception or so called 'red flags' in the information disclosed on a person's profile (Gillett, 2021).

A key area of consideration in two papers (Dietzel, 2021; Gillett, 2021) was the notion of users continually negotiating consent with other users online. It was noted by participants in these studies that the process of gaining consent for sexual activities was not a one-off singular event. Most participants agreed that consent should be freely given by both parties, being mutual and reciprocal in nature (Dietzel, 2021). Significantly though, participants remarked that consent can be explored and confirmed both online in conversation and in offline conversation as well. This reveals how online conversations can provoke frank conversations about users' future intentions with the other person, but that consent should also be sought for such activities in-person as a confirmatory gesture. The implications here are that prior online conversations may have created expectations of receiving sex readily when meeting the victim in-person for the first time, resulting in the increased likelihood of IFSO victimisation.

After the offence, it was reported that users tried to utilise some of the online safety features on dating apps with mixed results. Some participants made use of the 'unmatch' feature on Tinder to sever ties with a person with whom they have had negative encounters, whilst others tried to report the person to Tinder (Gillett, 2018). Participants were often frustrated by the lack of response from Tinder. As a result, some victims reported that their negative experiences made them leave the app altogether (Gillett, 2018).

To address these negative experiences, NCA (2022) developed some guidance and recommendations for online dating users to help protect and prevent them from IFSO. This included: creating and adhering to a dating plan which outlines the timing, duration and location of a date, meeting in public places for the whole duration of a first date as a safety precaution and emphasising to all users that when meeting in-person for the first time that person is still a stranger in spite of earlier online conversations.

Theme Five: Correlates of Victimisation

Across the papers reviewed, it was observed that victimisation tended to cluster in certain population groups. Several papers made reference to Routine Activities Theory (RAT) to explain IFSO victimisation (Boillot-Fansher, 2017; Centelles, 2019; Choi et al, 2018; Kennedy & Taylor, 2010; Powell & Henry, 2019). RAT proposes that for a crime to occur three elements must converge in time and space: a motivated offender, a suitable victim and the absence of a capable guardian. In the case of Internet facilitated offending, the guardianship principle is substituted in favour of an online environment.

In terms of gender, as demonstrated in the demographics section of the Results, the literature overwhelmingly demonstrated that women were more likely to be victimised (Shapiro et al., 2017). For example, the NCA (2022) reported that a majority of victims identified as female (83%). This also reflects the wider literature on sexual offending which takes place without an online approach (McPhail, 2016). There was strong evidence in favour of this claim; with IFSO victimisation patterns being reported as gendered in nature. In contrast, Choi et al. (2018) did not find any relationship between gender and victimisation but this study was an outlier.

In terms of age, victimisation was strongly correlated with younger age groups. This was explained in the literature by the fact that 18–30-year-olds, in particular, are more likely to have a profile on a dating app than those of an older demographic. According to RAT, younger people would therefore be at greater risk of encountering an offender online and subsequently becoming a victim of IFSO. This finding might be influenced by 8 of 16 studies sampling undergraduate students only. However, Powell and Henry (2019) found the same while using a population-wide sampling approach.

Studies that included records of participants' sexual orientation (*n* = 4), found that individuals who identify as LGBT were more likely to be victimised. There is some evidence to support this claim (Powell & Henry, 2019). This could be attributed to the community's increased reliance on Internet dating to meet potential partners as they are a marginalised group with a smaller dating pool (Rosenfeld & Thomas, 2012). Again, according to RAT, the increased level of Internet activity means LGBT people are more likely to encounter potential offenders whilst searching for partners due to conversing in the same online environments.

Using dating apps was identified in the literature as a risk factor for IFSO victimisation. Choi et al. (2018) and Gilbert et al. (2019) found an association between the use of dating apps and being the victim of sexual abuse. This is because having an online dating profile exposes a user to many thousands of other users and provides a platform through which contact from an offender can be initiated. According to RAT, these online forums provide an environment where potential offenders and victims can converse in their day-to-day life without the need to be physically present. How RAT can be further applied to IFSO is discussed in greater detail in Chapter One. Additionally, Centelles (2019) identified particular factors associated with online dating which increased the risk of in-person victimisation including number of matches and being in a casual relationship. A larger number of matches increases the likelihood that at least one offender will be in that list. Being in a casual relationship will increase the likelihood of going on dates with other people hence the risk of meeting a suspect.

One study in the review also looked specifically at Tinder (one of the most used dating apps) (Shapiro et al., 2017) and found an association between Tinder use and

IFSO victimisation. This might indicate propensity for higher frequency of dating and therefore availability to offenders' increases. This could be because it brings daters into contact with a greater number of people, much like Centelles (2019) finding regarding matches, which increases the chances of encountering a perpetrator.

Another factor which was associated with a higher likelihood of victimisation was the disclosure of personal information by the victim (Kennedy & Taylor, 2010). For example, one third of Kennedy and Taylor's sample revealed their place of work through their online profiles. This allows victims to be both cyberstalked online using the app and stalked in-person if they reveal the address of locations significant to them. Alongside personal information, Centelles (2019) found that distance visibility also predicted IFSO victimisation. Many dating apps provide a GPS feature which allows users to identify other users who live near to them. This feature allows offenders to track potential victims and target them without any prior contact.

Theme Six: Challenges with IFSO

The final theme identified from the review relates to the challenges faced by investigators and/or policymakers when attempting to investigate IFSO or implement prevention strategies for IFSO (Bluett-Boyd et al., 2013; Powell & Henry, 2018). These can be grouped into four main challenges: access to resources, poor educational programs, jurisdictional issues, and the permanence of online material. The identification of these main challenges resulted in some recommendations for action from the authors.

Having inadequate resources impacted on the day-to-day jobs of police and criminal justice staff (Bluett-Boyd et al., 2013). For example, participants expressed concerns that they were unable to keep pace with the changing nature of online environments due to offenders' increasing technical abilities in perpetrating their crimes. Investigators felt under pressure to adapt to the latest services, software applications and websites that were being exploited in IFSO. Additionally, there were severe staff shortages reported for those with the required technical skills. This created further issues with investigators then being unable to utilise the full benefit of evidence provided by technology. There were even reports of technical issues later down the judicial process with evidence unable to be displayed in courtrooms due to no appropriate equipment being provided. Overall, investigators felt frustrated and

believed that inadequate resourcing meant they were always one step behind offenders in their level of technical ingenuity and that this prevented offenders from being brought to justice.

Another key issue mentioned by investigators was the lack of policy and prevention programs aimed at young people (Bluett-Boyd et al., 2013). Those that did exist were criticised heavily by the participants in the study as being insufficient or having inappropriate messaging (Bluett-Boyd et al., 2013). There was a reported huge disconnect between the reality of the nature of offending and current policy direction. For example, there were misunderstandings that flirting and sexting are often part of the dating process in consensual relationships as well as nonconsensual ones. Also, it is important here to make a distinction between resources aimed at children with advice which advocates stranger danger and those aimed at young adults. For many young adults, online conversations will often more closely resemble a dating relationship so sexualised dialogue, flirting and banter are more normalised and even expected. Bluett-Boyd et al. (2013) also cited how it is unrealistic to expect grown adults to never talk to strangers when that is the primary aim of the online dating process and other such mediums. Therefore, they urged investigators and policymakers to recognise this in any future advice and awareness programs.

Similarly, there were mixed views concerning the role of schools in raising awareness of IFSO for when adolescents come of age and go out into the world of dating (Bluett-Boyd et al., 2013). Some investigators believed schools played a vital role in educating young people about the dangers associated with meeting strangers online and Internet dating. Other participants reported their skepticism surrounding schools' abilities to oversee and take responsibility for such a complex and challenging topic. Their concerns related to schools-based messaging potentially being insensitive or insufficient for young people relying heavily on so called 'scare tactics' (Bluett-Boyd et al., 2013 p.44).

Another issue relating to the investigation and prosecution of IFSO offenders was the challenge of investigating and prosecuting these offences across legal jurisdictions given their global reach (e.g., when the offence took place in one jurisdiction but the offender lived permanently in another, or when the evidence for an offence was held by an international service provider) (Bluett-Boyd et al., 2013; Powell & Henry,

2018). Participants reported that if the offender lived in a different jurisdiction, they often escaped apprehension due to the lack of clear oversight and the logistical issues associated with overseas investigations. Investigators also reported an absence of a standardised legal framework to assist them. This meant it was unclear who should take responsibility for dealing with offences particularly where the location of offences and the offender's residence were not in the same jurisdiction.

Likewise, the lack of cooperation from telecoms and online providers was cited as a key factor limiting investigation into IFSO (Powell & Henry, 2018). This restricted the amount of evidence that could be assembled to form the best possible case for the victim. Investigators also observed that, even when providers were cooperative, the intricate process of obtaining evidence created significant time delays for investigations and was associated with substantial costs.

Finally, the permanence of material online was also cited as a key challenge that victims may experience (Bluett-Boyd et al., 2013; Powell & Henry, 2019). There were reported cases where nonconsensual images/videos of the offence had circulated online and had been distributed widely. Sadly, investigators felt there was little they could do to prevent this. The wide dissemination of these images/videos can cause immense distress to the victim and further continue the victimisation long after the offence is completed.

Having reflected on these challenges, the authors offered recommendations for improvement. Interestingly, practitioners in the field did not give support to a top-down regulatory framework to prevent IFSO but instead preferred further education of young people to consider both their online and offline behaviour in relation to interacting with new people (Bluett-Boyd et al., 2013). A reason was not stated for why they came to this view; it could be due to ethical concerns over allegations of censorship or practical reasons: the sheer size of the Internet, number of mediums and global reach may mean regulations are not feasible. They believed young people should interact with online spaces with more critical awareness and highlighted that any advice given must address young people's needs from a victim's perspective. The investigators interviewed also were of the view that relevant industry players need to take more responsibility and be more responsive to requests for information in relation to alleged crimes (Bluett-Boyd et al., 2013). They

urged the need for cross-sector industry involvement and accountability to develop effective responses.

Lastly, the lack of access to resources suggests the need for greater funding to recruit and train more staff as substantial costs were reported (Powell & Henry, 2018). Given the current global markets and austerity in some countries, a way of making up this shortfall could be to tax online companies to fund police investigations into IFSO occurring on their platforms. This would replicate the funding model used by football teams who compensate police for providing necessary security for matches (Home Office, 2020). Innovation is needed in the currently challenging working environment for the CJS to ensure maximum efficiency in terms of improving the investigation and prosecution of IFSO.

Discussion

The purpose of this review was to examine what is already known about IFSO in the existing academic literature. Overall, this review has found that the current empirical literature has explored the nature of IFSO in 5 main areas: offending behaviour, victim behaviour, prevalence rates, correlates of victimisation and challenges to investigation. In addition, the author was also able to map out the multitude of different terms used to describe this phenomenon across the academic literature; a factor future authors would have to consider when conducting their own literature searches.

Prevalence Rates

The prevalence rates for IFSO across studies varied considerably; from a high of 26.1% in Kennedy and Taylor (2010) to a low of 2.05% in Fansher and Randa (2019). It is difficult to isolate the exact reason for this variation. One possibility could be due to prevalence rates varying across jurisdictions. Different countries could have lower or higher offending rates for IFSO potentially attributed to a higher percentage of the population who use dating apps. Another reason for this variation could be due to heterogeneity of different research designs that emerged from this review. Different authors may have defined and measured IFSO differently and so have found different prevalence rates. Alternatively, authors may have sampled different populations with prevalence rates being a reflection of the increased likelihood of victimisation amongst these groups (e.g., students). This is an important

factor to consider when making generalisations about the prevalence of IFSO within a population. Sampling bias may explain some of the results as show in Table 2.

Offending Behaviour

Results of the data synthesis have outlined how the Internet is a facilitator to sexual offending before, during and after the offence (Bluett-Boyd et al., 2013). This illustrates just how integrated the Internet now is in many people's lives; being a primary source of everyday communication. This presents a challenge to investigators and victim support groups when attempting to support victims since Internet platforms may be used to smear and undermine the victim long after the offence. The data synthesis also revealed considerable variation within IFSO offending behaviour (Almond et al., 2020; NCA, 2016; NCA, 2022). For example, some offenders are physically or verbally violent towards their victims whilst others display pseudo-intimate behaviour. Such themes of behaviour have been reported in rape more generally (Canter et al., 2003). Overall, results from the Almond et al (2020) study showed that rapists using the Internet displayed characteristics which were relatively similar to confidence rapists who did not use the Internet to approach victims as opposed to (offline) surprise rapists.

Victim Behaviour

In the literature, key statistics about the demographic characteristics of victims showed that victimisation was more common among younger age groups particularly women in their 20s (NCA, 2016, 2022). They also showed an increase in teenage victims and male victims in more recent figures. It is unknown whether offending against these groups is becoming more common or whether these groups are now more likely to report their offences either to the police or in sexual victimisation surveys.

Analysis also revealed how victims behave online using cyberstalking as a screening process for potential dates (Gillett, 2018). From this, it can be inferred that victims are often aware of the dangers of talking to strangers online and agreeing to meet in-person. This means users will innovate and use online tactics as a safety precaution for their own benefit. This reveals how the Internet and social media use can act both as a risk factor and a protective factor. In time, it may become possible for digital platforms to add extra features to allow victims to gain more information about

potential dates prior to in-person meetings. This would assist in tipping the balance of power more greatly in the victim's direction.

Correlates of Victimisation

One of the key findings of this review has been that victimisation rates were not spread evenly throughout the population. Victimisation clustered within different groups: women, young adults, and LGBT people (NCA, 2022; Powell & Henry, 2019). Those who use dating apps (particularly ones which reveal the location of users) and users who disclose personal information are at greater risk of falling victim to IFSO. These could potentially be viewed as risk factors for IFSO. The discovery of correlations between IFSO and certain social groups could allow for more targeted messages aimed at the groups most at risk. This also has the potential to be examined by theoretical explanations such as Routine Activity Theory (Reyns et al., 2011). This cites how a motivated offender, a suitable victim and a conducive online environment must align for a crime to happen (Reyns et al., 2011). Examining which groups have a greater online presence using this theoretical approach could assist in explaining victimisation patterns.

Challenges to Investigation

Analysis revealed some of the complexities and challenges associated with IFSO. This included: staff shortages, lack of policy and prevention programs, jurisdictional issues when prosecuting offences which occur across different countries, lack of cooperation from telecoms, the permanence of material and lack of access to appropriate resources. These form the main barriers to investigating, prosecuting and preventing these types of offences and provide ample room for improvement for relevant stakeholders.

Strengths and Weaknesses of the Studies

There were many strengths identified from the research designs of the studies included in this review. Of the nine sources which examined victimisation through prevalence rates, most sources measured male as well as female victimisation (Boillot-Fansher, 2017; Centelles 2019; Choi et al.,2018; Fansher & Randa 2019; Kennedy & Taylor, 2010; Powell & Henry, 2019; Shapiro et al., 2017). Despite the majority of sexual offences being perpetrated against women, this demonstrates an

increasing recognition that both men and women can fall victim to such offences and represents a shift in awareness of the different forms of victimisation. Two of the prevalence studies (Cripps, 2016; Gilbert et al., 2019) focused solely on female victimisation, excluding all male victims so not all the studies represent true victimisation rates at population level. Two qualitative studies focused on victimisation with Gillett (2018) detailing entirely female experiences and Dietzel (2021) highlighting solely male experiences. Only one study included transgender participants (Powell & Henry, 2019).

Similarly, another strength of the literature was that some studies considered the victimisation of LGBT populations (Cripps, 2016; Dietzel, 2021; Fansher & Randa 2019; Powell & Henry, 2019). This represents a more inclusive approach to research and attempts to report the experiences of marginalised groups. Dietzel (2021) focused solely on the experiences of LGBT men who had been victimised. The inclusion of different populations which all have a chance of falling victim to IFSO means results will be more generalisable and likely to reflect the wider population alongside highlighting the experiences of marginalised groups through research.

However, one of the weaknesses of the prevalence rates literature was the over reliance on convenience sampling which many of the empirical studies adopted to recruit participants. Five of the studies relied on either convenience or voluntary sampling to collect data (Centelles 2019; Choi et al., 2018; Cripps, 2016; Fansher & Randa 2019; Kennedy & Taylor, 2010; Shapiro et al., 2017). Likewise, many of the studies (7) focused on victimisation amongst student populations, which is unrepresentative of the wider population. This potentially could mean that for these studies, findings could be attributed partly to a sampling bias indicating the number of IFSO victims in these samples could be overrepresented. Here, participants may have been more likely to be victimised and interested in the topic and therefore more likely to participate. One exception was Powell and Henry (2019) who recruited a large sample of 2956 adults from an online panel provider. They gained a large sample size with a wider range of individuals from different social groups with results likely to be more reliable and generalisable to the wider population. A solution to sampling biases within research designs would be to conduct more population wide surveys regarding IFSO and victimisation, potentially adding it to the Crime Survey for England and Wales (Office for National Statistics, 2022).

A strength of the UK studies conducted on offences was their reliance on data collated by the National Crime Agency (Almond et al., 2020; NCA, 2016; SCAS, 2022). This data originates from victim interviews and best represents their experiences of the offences they suffered. There is much empirical evidence in support of victim led testimony with high recall and accuracy of events (Menaker & Cramer, 2012). The data is then coded onto the ViCLAS database by experienced indexers from the Serious Crime Analysis Section of the National Crime Agency, UK (Davies et al., 2021). These methods of data analysis offer a detailed, reliable and contemporary sample of cases for which analyses can be applied. Furthermore, these figures have been updated since the MeToo movement which saw a significant increase in the reporting of sexual offences to the police (Levy & Mattsson, 2020), resulting in the SCAS (2022) having extremely recent statistics and a larger sample which has incorporated latest trends in regard to reporting from which conclusions can be drawn.

Another criticism is that some of the studies consisted of small sample sizes. For example, three of the victimisation studies consisted of less than 500 participants (Cripps, 2016; Gilbert et al., 2019; Kennedy and Taylor, 2010). There are simply not enough participants to make serious claims and generalisations about IFSO victimisation across an entire nation. Future studies which examine IFSO victimisation should consider and again take population-wide approaches to recruiting participants to ensure results are more reliable.

A final criticism that could be made of the IFSO literature to date is that studies have focused heavily on two forms of online platforms: dating sites/apps and social media. Whilst it is high likely these mediums facilitate the majority of IFSO offending, as they are the most popular platforms where strangers converse online, it is crucial to consider the role of other mediums such as private chat rooms, sexual advertisement sites and gaming sites.

Implications for Future Research

As explained, there is a gap in the literature in relation to the mediums used to approach victims with the current literature heavily examining social media and in particular dating apps. It would be worthwhile exploring the role of the many other mediums available online which can be used to approach new people as outlined.

This would clarify whether the approach medium does have any significance in terms of influencing offending or victim behaviour and would ensure a comprehensive approach to studying IFSO.

It was notable how many studies (from a variety of countries) examined prevalence rates to establish the number of people who fell victim to IFSO. This provides insight to relevant stakeholders and practitioners in the field. However, none of the prevalence studies were conducted within the UK. This is significant because currently there is no data to establish how common IFSO is among different population groups. So far, the only data available on victimisation is police data from SCAS (2022). Whilst this is valuable, the low reporting rate associated with sexual offences (Office for National Statistics, 2020) does not give a population-wide, national picture of the sheer number of offences which go unreported. This information would give police a broader picture of how common IFSO is and assist forces when funds are allocated in their annual budgets.

Another area for researchers to consider is the lack of psychological/psychiatric data for offenders convicted of IFSO. This is in stark contrast to studies of sex offenders convicted of online child sexual abuse (Gerwinn et al., 2018; Van Wijk et al., 2007). Data relating to offending behaviour thus far has primarily been recorded from victim interviews. Whilst this is significant, it would be even more beneficial if psychological studies conducted by clinicians were pursued in the future. Here, offenders' psychological characteristics could be documented and used for rehabilitation purposes. For example, whether IFSOs differ from the general population in their self-esteem or level of impulse control.

Strengths and Limitations of the Current Review

This review consisted of a rigorous and comprehensive search strategy exploiting all known key terms and hand searches of reference lists to locate any papers which may have been missed within electronic databases. This in turn revealed more terms used to describe this topic which were not included in the original search for example, use of a carriage service. The new terms identified give an overview of the different ways of conceptualising the topic and can assist future researchers in this field to locate more relevant papers which may have been published after the January 2022 cutoff date used here.

A further strength of this review has been the inclusion of studies with quantitative *and* qualitative research designs. Studies were not excluded based on their research design. All studies with empirical data were included which allowed every available study on the topic to be collated and examined. Likewise, the use of both quantitative and qualitative approaches acts as a form of a triangulation. When findings were found across studies or even using different approaches, it strengthens their credibility and counteracts the weaknesses associated with using either approach alone (Fielding, 2012).

A limitation of this review is that it was incomplete as studies were only included if they were published in the English language. This led to eight studies being excluded due to this being the author's only spoken language. The author was unable to recruit native speakers to translate. This has resulted in a review dominated mostly by papers from the Global North (except for Hong Kong). Ideally, these papers should have been translated into English and included making for a fully comprehensive mapping review with every finding documented for the benefit of academic research and practitioners' operational work.

Conclusion to Review

Much of the existing literature on online sexual offending has focused on the victimisation of children online, whereas this novel review has extracted data and conducted quality assessments on studies which have focused on adult victimisation. This review has highlighted the different terms used to describe IFSO, the prevalence rates recorded by different research teams across multiple jurisdictions and the role of the Internet as a facilitator in offending behaviour before, during and after the offence. The study of offending behaviour revealed a heterogeneous population with offending behaviour similar to stranger con-rapists who do not use the Internet to approach victims. Additionally, victim behaviour associated with IFSO has been examined including the role of cyberstalking and the process of negotiating consent alongside the correlates of victimisation found in different groups, and the many challenges associated with IFSO when investigating these offences and supporting victims. The findings from the studies appear to give some support to the notion that IFSOs are becoming more common (or at least more often reported in recent years) due to ever increasing reliance on the Internet for so many activities with dating being no exception (SCAS, 2022). Thus, this topic will become ever more relevant for future researchers of sexual violence and practitioners in the field.

Conclusion to Thesis

In conclusion, this thesis has examined IFSO through two main chapters. Chapter One consisted of exploring the topic of IFSO through theory. RAT provided the higher-level structure in which key elements of the offending process were assessed. First, by mapping out the different motivating factors that cause sexual offending including opportunism, pervasive anger, sexual needs, vindictiveness alongside intimacy needs and misogyny towards women. This provided an insight into the variety of different motivational causes for IFSO and revealed the heterogeneity of the offending population. Then, victimology was discussed with several groups and individuals identified as being higher risk in particular: women, adolescents, and young adults, those who identify as LGBT and those who disclose personal information and images. Following on, the wider online environment was considered with several technological features provided by online platforms found to provide a facilitating effect on sexual offending with real-life implications for victims in the physical world. This chapter concluded by stating that RAT is a useful theory for examining IFSO.

The second chapter of this thesis consisted of a systematic review of the existing literature on IFSO. This found 16 relevant studies in which data were extracted and quality assessed. Descriptive Data Synthesis was conducted and found 6 overall themes across the literature: the multitude of terms used to describe IFSO, reported prevalence rates, offending behaviour, victim behaviour, correlates of victimisation and finally the many challenges for investigators when dealing with cases of IFSO. The systematic review confirmed much of what was found in the theoretical chapter particularly in relation to the correlates of victimisation found across the different groups and the heterogeneity of the offending population. RAT was also cited as a relevant theory for explaining victimisation patterns in the review, validating the authors original premise for their earlier chapter. Crucially, the review appeared to suggest that IFSO was becoming more common or at least more reported. Together these two chapters have confirmed that IFSO will remain an ever-present threat for online users and a key challenge for relevant stakeholders for the foreseeable future.

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Appendices

Table 6 – Blank Copy of Data Extraction Table

Title	Year	Country	Focus	Method	Participants	Study design	Findings