

**The Cycle of Abuse for Individuals With Intellectual Disabilities who Engage in
Sexually Offending Behaviour**

Jordan Hoath

Department of Applied Disability Studies

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Faculty of Social Sciences, Brock University

St. Catharines, Ontario

Abstract

Individuals with an intellectual disability (ID) have higher rates of childhood sexual abuse than other clinical groups, and the general population. Over the past 15 years, research has lent support to the theory of a cycle of abuse, which postulates a relationship or pattern between prior experience of sexual abuse and later sexual offending. However, there is limited research examining this pattern in samples of sex offenders with ID. To contribute to and expand on previous research, two studies were carried out to examine the cycle of abuse. Study 1 was an exploratory retrospective clinical file review study, which examined the co-occurrence of previous sexual abuse and later sexual offending in a clinical sample of individuals with ID who had received treatment. Results of study 1 indicated that having a history of sexual abuse was as common in my sample than in previously studied samples of offenders. Study 2 systematically reviewed the literature examining the cycle of abuse across populations and samples in an attempt to replicate and extend previous meta-analytic findings. Study 2 provided further evidence to support the theory of a cycle of abuse and revealed potentially mediating factors including gender and presence of intellectual disability. Future research is needed to examine the specific factors that may predict or prevent the onset of offending behaviour in individuals with ID who have experienced sexual abuse.

Keywords: sexual offending, intellectual disability, offending, cycle of abuse

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The Cycle of Abuse for Individuals with ID who Engage in Sexually Offending Behaviour

Individuals diagnosed with an intellectual disability (ID) are a diverse group, whose living and learning histories differ from those of the general population. Intellectual disability refers to the presence of significant deficits in cognition, functioning and adaptive skills (American Psychiatric Association, 2013). Some authors and organizations use the term Intellectual and Developmental Disabilities (IDD) to refer more broadly to individuals with ID in addition to other developmental or congenital issues (Carulla, et al., 2011). In the United Kingdom, the term “Learning Disability” is used to describe individuals who present with these profiles (Whitaker & Porter, 2002). Historically, in Ontario the term Developmental Disability replaced the more pejorative label of Mental Retardation (Schalock, Luckasson & Shogren, 2007). For the purpose of this thesis, the term intellectual disability (ID) was used unless the definition used in a particular published study was more or less encompassing, in which case the specific term used in that study was included. Additionally, a choice was made to use person first language throughout the paper.

Similarly, the terminology and nomenclature used to describe individuals who exhibit sexually-based behaviours varied by study and setting. For instance, Hayes (2009) used the term “sexual offender” to describe individuals convicted of a documented sexually based offense and referred by legal counsel. Lindsay et al. (2002) used the term “sex offenders and abusers” to describe individuals receiving inpatient treatment for illegal sexual behaviour irrespective of the history of criminal charges. Specifically, 18% of that sample had no history of forensic or justice involvement at time of referral. As such, the terms “sex offenders and abusers” were used by Lindsey to describe individuals who engaged in sexual behaviours that were illegal, regardless of prior charges or convictions. Consistent with Lindsey’s usage, the term “sex offender” was used

in this thesis to describe individuals who have engaged in any of these illegal sexual behaviours, irrespective of the presence of charges or convictions. Further, the term “sexually offending behaviour” was used to describe any illegal sexual behaviour, irrespective of the presence of charges and convictions. When relevant, references to “charges” were made exclusively when criminal charges were reported.

The cycle of abuse theory suggests that individuals who suffer sexual abuse in childhood may be more likely to engage in similar offending behaviours later in life (Hilton & Mezey, 1996). While some studies focused on offenders in the general population have provided support for this theory (e.g. Worling, 1995; Romano & Deluca, 1996; Week & Widom, 1998), other researchers and theorists note that not all individuals who experience early abuse go on to offend (e.g. Langevin & Pope, 1993; Briggs & Hawkins, 1996), and not all offenders report a history of prior abuse (e.g. Jespersen et al., 2009). Further, directly demonstrating a causal link between early abuse and later offending poses unique ethical challenges.

There are few studies examining evidence to support the cycle of abuse in individuals with ID (e.g. Lindsay et al., 2001; Hayes, 2009). This is surprising given that the prevalence of virtually all types of abuse, including physical and sexual abuse was higher in samples of individuals with ID when compared to specific samples taken from the general population (e.g. Lambrick & Glaser, 2004; Hayes, 2009). The prevalence rates vary by study, but each reported higher prevalence of childhood abuse for individuals with ID. Following the cycle of abuse theory, this early abuse may influence later behaviour. In fact, Lindsay (2002) reported that individuals with ID have been found to engage in higher rates of a range of problematic behaviours including, aggression, self-injurious behaviour, disruptive behaviour, and behaviours that are sexually assaultive compared to individuals in the general population.

Of additional concern, the community and legal consequences for offending may differ for offenders with ID compared with the consequences applied to offenders from the general population. McBrien & Murphy (2006) found that caregivers' decisions on whether to inform authorities when individuals with ID were found to have engaged in sexually offending behaviour were influenced by a number of factors, thereby potentially limiting exposure to legal consequences for crimes. These factors included perception of motive, attitudes towards arrest, reluctance to involve authorities, and challenges in convicting offenders with ID. These perceptions may lead to underreporting of behaviours, which is concerning because individuals with ID were reported to have higher rates of contact with the justice system (Crocker, Côte, Toupin & St-Onge, 2007) and when charged, have incurred more serious sanctions than offenders in the general population (Thompson & Brown, 1997).

In summary, while it has been reported that individuals with ID experience both higher rates of abuse and higher prevalence of sexual offending behaviour than the general population, there is limited research linking early histories of abuse to later offending behaviour. The purpose of these studies was to add to and expand upon the existing literature on the cycle of abuse through two distinct studies. First, a retrospective file review study was conducted with a clinical sample of individuals with ID who had received community-based treatment for sexually offending behaviour. Second, a meta-analysis relating to the cycle of abuse was undertaken to examine the recently published literature.

Literature Review

The following review of the literature endeavours to critically examine the existing evidence relating to the cycle of abuse, which posits a relationship between earlier sexual abuse and later sexual offending. In order to better understand the population of interest, research regarding individuals with ID who engage in sexual offending behaviour was examined, and the similarities and differences when compared with offenders in the general population was explored. This information was used to design studies that could fill gaps and contribute to this field of research.

First, research on the prevalence and attitudes towards challenging and offending behaviour exhibited by individuals with ID are presented. Second, the literature describing the traits and patterns demonstrated by individuals with and without an intellectual disability who sexually offend are reviewed. Third, the prevalence of abuse in individuals with and without an intellectual disability who sexually offend is explored. Finally, the research pertaining to the cycle of abuse and how it relates to individuals with and without an intellectual disability who sexually offend will be summarized. The confluence of these areas of research will provide the basis for the rationale for this research.

Individuals with ID Exhibit Higher Rates of Criminal Behaviour

Individuals with ID exhibit more sexual and non-sexual criminal behaviour than individuals in the general population. Thompson and Brown (1997) noted that prosecution for individuals with ID is relatively rare. Though the prevalence of a developmental disability in Canada is approximately 3.5% (Statistics Canada, Participation and Activity Limitation Survey, 2001), research in a Canadian sample of 281 individuals in pre-trial detention revealed that 18.9% had ID (Crocker et al., 2007). In a sample of 90 probationers in England, 7% had ID

(Mason & Murphy, 2002) while the prevalence of ID in their general population is reported to be 2% (Emerson & Hatton, 2008). These rates are disproportionately high considering the prevalence of individuals with ID in the community, suggesting that this population may be over-represented in the justice system.

When compared to offenders without ID, some studies show that offenders with ID also reoffend more frequently (Craig & Hutchinson, 2005). MacEachron (1979) examined the literature and found rates of recidivism amongst offenders with ID to be between 2.6% and 39.6% across studies, while Gibbens and Robertson (1983) reported a reconviction rate of 68% amongst a sample of 35 offenders with ID. In a longer-term study, Lund (1990) reported re-offense rates of 72% over a 10-year period in a sample of 91 offenders. However, these studies did not define “recidivism” and “reoffense” with respect to differentiating behaviour that resulted in charges and behaviour that did not. In 2002, Lindsay conducted a thorough literature review on sexual offenders with ID. He noted that research has shown an increased frequency of sexual offending in this population. The deinstitutionalization process in Ontario over the past 50 years has meant progress for many individuals with ID (Condillac, Griffiths & Owen, 2012). However, it has also left fewer support options for individuals with ID who exhibit offending behaviour who may have previously been sent to or returned to institutions after committing crimes (Lindsay, 2002). Further, when offending behaviour occurs in community settings, individuals with ID in Ontario may be diverted from court due to their ID.

It is often assumed that individuals who engage in sexually offending behaviour are more persistent in their crimes and more likely to reoffend (Miethe, Olson & Mitchell, 2006). However, research has found that individuals who engage in sexually offending behaviour are less likely to engage in re-offenses than individuals who engage in non-sexual offending

behaviour. In a review of criminal information from a state-wide database of 17, 000 sex offender arrestees who engaged in offenses from 1990-1997, Sample and Bray (2003) found that only 6.5% of individuals who engaged in sexually offending behaviour were re-arrested for the same crime. Research shows that individuals with ID may be more likely to commit or get caught for sexual re-offences than sexual offenders without ID. For instance, Klimecki, Jenkinson, and Wilson (1994) found that out of a sample of 52 individuals with ID who sexually offended, 21% (11) were re-arrested for a sexually based crimes, As well, Lindsay et al. (2004) reported on 52 individuals with ID referred to treatment for sexually offending behaviour, and 35% (19) had engaged in at least one re-offense. There is evidence to suggest that individuals with ID who sexually offend may be more likely to later reoffend or get caught reoffending than offenders in the general population.

Differential Attitudes Towards Offenders with ID

Attitudes towards offenders with ID vary but appear quite different than those for offenders in the general population and may influence the rate of reporting. In one study, McBrien and Murphy (2006) reported on the attitudes of 80 direct care providers and 65 police officers regarding crimes committed by people with ID. Care providers were asked whether they would report crimes based on the type (e.g. theft, assault) and whether the perpetrator had ID; 67.5% stated they would report an assault by an individual with ID while 95% said they would report the assault if committed by someone in the general population. Interestingly, 82.5% stated they would report a rape by an offender with ID; however, if the offender was from the general population, 100% of the respondents stated they would report it. Even with a crime as significant as rape, almost 20% of staff would not report it. This was contrasted with officers, who were asked if crimes should be reported based on type of crimes and presence of ID; all the officers in

the sample felt that all crimes should be reported, regardless of the crime or presence of disability. Police felt it important for caregivers to follow the law and notify authorities regardless of context, while caregivers were more inclined to label behaviour as “challenging” and less likely to feel the individual is responsible for that behaviour. Holland and Mukhopadhyay (2002) reviewed the literature and compared four studies reporting on the prevalence of ID in samples of offenders arrested for sexual crimes; they found wide variability of prevalence of ID, ranging from 0.5% (1 individual in a sample of 196 offenders) to 84% (132 of 156 offenders). The authors reported that there was an overall prevalence rate of ID of 24% (145 out of 603 offenders). These studies demonstrate that differential attitudes could inadvertently interfere with legal consequences, thereby reducing the likelihood of charges being laid for sexual offending behaviour when the perpetrator has ID. This suggests that there could be systematic underreporting of sexual crimes committed by individuals with ID, and also a systematic bias against charges being laid.

Traits and Patterns of Sexual Offenders in the General Population

Most studies examining sexual offenders from the general population are based on samples of predominantly or exclusively male offenders (Hummel, Thömke, Oldenbürger, & Specht, 2000; Romano & DeLuca, 1996; Worling, 1995). For example, in 1995 Worling examined the behaviour histories in a sample of 90 adolescent offenders, all of whom were male. Craissati, McClure, and Browne (2002) found that 90% of the 178 sexual offenders included in their sample were male. As well, in a meta-analysis synthesizing the literature regarding abuse histories of individuals who engage in sexually offending behaviour, only one study had a sample of female offenders (Jespersen et al., 2009). Other studies that did not state the gender of

participants directly may have assumed that readers would draw that conclusion based on historical precedence.

Similarly, some studies have provided only the mean age of participants without other descriptive statistics such as range or standard deviation, while other studies omit age altogether without reference to whether the sample included children, youth or adults (e.g., Klimecki et al., 1994; Langevin et al., 1989). In 1997, Romano and De Luca recruited a sample of 24 male sexual offenders, from Canadian penitentiaries, who had offended against children. The average age of this sample of offenders was 41 years of age. Baltieri and Andrade (2008) divided their sample of offenders into subgroups based on their frequency of offending, from singular, isolated behaviours to multiple offenses over a period of time; the average age for each group ranged from 38-43 years of age. It should be acknowledged that there are practical limitations to providing the age of offenders. Most samples are gathered from treatment or forensic populations in which age of referral would be available, however age when offending maybe difficult to ascertain or corroborate.

Few studies reported on the marital status of individuals who sexually offend but when reported, they addressed rates of separation and divorce.) In a sample of 42 sexual offenders Romano and DeLuca (1997) found that more than one-third (38%) were separated or divorced while the remainder were not in documented relationships. It is unknown if this was influenced by the occurrence of sexually offending behaviour. In a previous study by Romano and DeLuca (1996) the authors compared the characteristics of offenders, sexual offenders and non-offenders. They reported that of 34 individuals who engaged in sexually offending behaviour, 35% (12), were separated or divorced. No additional relationship information on the sexual offender group

was provided, nor was the proportion that were separated or divorced in the non-sexual offender group.

To summarize the following trends in demographic information were found in the literature. The majority of sex offenders in research are male, mirroring the higher prevalence of sexually offending behaviour by males. The documented age of offenders is usually limited to the age of participants during the respective study. There is limited available data on age at first offense, as corroboration would be challenging and could potentially lead to additional charges. The marital status of sexual offenders is often unreported, but when reported, almost 35% were separated or divorced with no statistics on individuals in successful relationships.

Traits and Patterns for Offenders with ID

As with the offenders in the general population, sexual offenders with ID are almost exclusively male. Every study reviewed featured samples that were predominantly male (Hayes, 2009; Klimecki et al., 1994; Lindsay, 2002; Lindsay, Elliot, & Astell, 2004). It is unclear whether this pattern is solely the result of a disproportionate number of male offenders or sampling bias. The majority of studies do not use random as samples are typically drawn from forensic or clinical populations. There exists the possibility that males are more likely to be reported, referred for treatment, or sanctioned legally when caught engaging in sexual offending behaviour. Balogh et al. (2001) examined 43 individuals with ID who were either victims or perpetrators of sexual offending. Of the 43 participants, 6 were perpetrators, 21 were victims and 16 were both victims and perpetrators. In total, there were 37 individuals who were victimized, and of those just over half, 54% (20), were female and the remainder were male. In total, of the 43 participants there were 22 perpetrators, 77% (17) male and five (33%) female; these included individuals who were both victims and perpetrators. Individuals in the sample who were

victimized were both male and female almost evenly (54% female, 46% male), while individuals who were perpetrators were predominantly male (77%). Despite studies showing varied prevalence of female offenders, the vast majority of offenders in the literature were male.

Individuals with ID who sexually offend were typically described as functioning in the mild to moderate range of disability (Hayes, 2009; Lindsay, Law, Quinn, Smart & Smith 2001). This could be an artefact of research conducted with prison populations, which are less likely to include individuals with more severe disabilities (Balogh et al., 2001). In 2001, Lindsay et al. compared two groups of offenders with ID from a prison population in Scotland: 46 individuals who sexually offended and 48 individuals who committed non-sexual offenses. The majority of sexual offenders were reported to have mild ID, 56% (26), with the rest being either borderline intellectual functioning 30% (14) or moderate ID 14% (6). There were 48 non sexual offenders with ID the majority of which had a mild ID 54% (26), with the remainder having borderline intellectual functioning 33% (16) or moderate ID 13% (6). This study showed that over 80% had mild disabilities and there were no participants with more profound disabilities in the entire sample. This may be an artefact of the sample as individuals with more profound disabilities may be less likely to get charged.

In another study, Hayes (2009) recruited participants from a 5-year sample of in-patient admissions to a psychiatry department, specializing in treatment of individuals with ID. The study did not provide information on each participant but in a sample of 20 individuals with ID, the mean IQ was 55, which falls on the cusp between the mild and moderate ranges; however a diagnosis of ID is not based solely on IQ. In a study by Balogh et al. (2001) found similar results in their study with a sample of 43 individuals with ID. Almost the entire sample (93%) reported to have milder levels of intellectual disability. Klimecki and colleagues (1994) studied 75

offenders who had been sentenced to a specialized unit for individuals with ID in an Australian prison, each of whom were described as functioning in the mild range of ID. From In summary, the majority of individuals found in the samples reported above had milder levels intellectual disability, though this could be the result of referral or sampling bias and may not reflect large-scale trends.

The social-economic status of individuals with ID who sexually offend was not widely reported on. Lund (1990) found that 79% of a sample of 72 individuals (57) with ID who engaged in sexually offending behaviour came from low socio-economic status as opposed to 46% (33) of a sample of 72 non-offenders with ID.

Similarly, there was sparse and inconsistent information in the existing literature relating to the characteristics of victims targeted by offenders with ID. Lindsay et al. (2002) collected information on a sample of 62 sexual offenders with ID in a clinical treatment setting and reported that 33% of the sample of 21 participants had engaged in offenses against adult victims. Lambrick and Glaser (2004) reported on the available literature for sex offenders with ID and stated that they are more likely to offend against adults, males and strangers. Worling examined offense histories in a sample of 90 adolescent male sexual offenders between 12 and 19 years old who were referred to a sexual treatment program for youth sex offenders in Toronto. He found patterns in victim choice: male victims were almost exclusively children, but female victims were equally likely to be children or adults.

In summary, the literature on sexual offenders provides information on gender, age of offenders and marital status. Samples of sexual offenders, in both the general population and of individuals with ID, are almost exclusively male; this pattern was consistent across all studies. The average age of offenders was available in most studies regarding both sexual offenders with

and without ID but some studies provided little other information regarding age. The relationship histories of offenders in the general population were discussed in at least two studies (Romano & Deluca; 1996, 1997) and there may be an increased prevalence of separation and divorce for sexual offenders in the general population. Gaps in this literature highlight the need for reporting specific information on gender, age and marital status of sexual offenders.

Rates of Abuse in the General Population

There is substantive literature on the rates of physical and sexual abuse experienced in the general population. Finklehor, Hotaling and Lewis (1989) conducted a survey of 2626 Americans, including 44% (1150) men and 56% (1476) women via a LA Times Poll. The sample was determined by a randomly generated list of phone numbers. Questions related to attitudes and experiences with sexual abuse. The results showed that 27% of women and 16% of men had experienced sexual abuse. Briere and Elliot (2003) reported on the prevalence of physical and sexual abuse within a randomized sample of 1442 individuals, taken from telephone and automobile directories in the United States. Each potential participant was mailed a questionnaire, which included a trauma-based survey. Of the 1442 recipients of the package, 64.8% (935) returned the survey, 49.6% (464) were men and 50.4% (471) were women, from which 14.2% (66) of men and 32.3% (152) women reported childhood sexual abuse.

In contrast, two studies from Britain provided rates of abuse from the general population. Baker & Duncan (1985) found that, of a national survey conducted by an independent researcher in Great Britain, 12% of 1050 females and 8% of 969 males had been sexual abused by the time they were 16 years old. Cawson, Wattam, Brooker & Kelly (2000) found that 11% (316) of a sample of 2869 individuals (males and females) aged 18-24 from a survey commissioned by a national child abuse agency, experienced sexual abused by the time they were 13.

In review the prevalence of sexual abuse in the general population is consistently reported to be higher for women with rates ranging from 12%-32.3%, compared to rates for men, which range from 9%-16%. When considered in the context of the cycle of abuse, this may also indicate an increased risk for offending for a portion of the population.

Rates of Abuse of Individuals with ID

The rate of sexual abuse for individuals with ID in general varies across studies ranging from 25%-61% for women, and 25%-40% for men (Chamberlain, Rauh, McGrath, & Burket, 1984; McCarthy & Thompson 1997; Reiter, Bryen, & Shachar, 2007). These ranges are considerably higher than those reported for the general population and the literature has consistently shown that the individuals with an intellectual disability suffer notably higher rates of multiple types of abuse (e.g. physical and sexual)

Conod and Servais (2008) wrote about the sexual histories of individuals with ID. To this end they reviewed the literature on a variety of topics and addressed the sexual abuse rates within this population; they cited Chamberlain et al. (1984), who reported that 25% of a sample of 87 women with an intellectual disability living in the community have experienced sexual abuse and Elkins, Gafford, Wilks, Muram, and Golden (1986), who reported that 27% (10) of sample of 37 women with ID had been abused. Beail and Warden (1995) studied a sample of 88 individuals with ID, over 16 years of age referred for psychology services for a variety of concerns and found 25% of the sample reported a history of sexual abuse. McCarthy and Thompson (1997) reported on the sexual abuse rates for a population of individuals with ID referred to the Sex Education Team in England. Of the 185 participants (65 women and 120 men), 61% (40) women and 25% (30) men had a history of sexual abuse. In their study of adolescents with ID, Reiter et al. (2007) found “significant differences...between the students with disabilities and their peers

regarding the frequency of abuse in all three domains, physical, sexual and emotional” (p. 377). Of the 50 students with ID, 38% (19) were physically abused while 40% (20) were sexually abused.

The patterns of sexual abuse for individuals with ID are similar to those in the general population with higher rates of sexual abuse for women compared with men. The rates of sexual abuse of individuals with ID are substantially higher. There are several reasons why individuals with ID are at higher risk for abuse including lack of education for potential victims, insufficient training for support providers and the absence of adequate screening for proper residential placement (Euser, Alink, Tharner, & IJzendoorn, 2016; Wissink, Van Vugt, Moonen, & Stams, 2015, Wissink, Van Vugt, Moonen & Stams, 2018). If victimization is related to later offending, the higher rate of victimization may, in part, explain the relatively higher prevalence of sex offenders with ID.

The Cycle of Abuse with Individuals in the General Population who Sexually Offend

The cycle of abuse theory holds that abuse suffered in childhood may lead individuals to perpetuate that abuse in adulthood (Hilton & Mezey, 1996). The research literature has demonstrated that different types of offending behaviour are correlated with previous abuse histories in both the general population and for those with ID (Hanson & Slater, 1988; Jespersen, Lalumiere & Seto, 2009; Lindsay, Steptoe & Haut, 2012).

Bagley, Wood and Young (1994) published a research study on a random sample of 750 males aged 18-27 in the general population taken randomly from the telephone directory. The study examined the existence of abuse and its correlation with other behavioural and environmental factors, including later sexual behaviour. Self-report information was collected over the telephone on the following variables: childhood sexual abuse, emotional and physical

abuse, current sexual interest and activities, mental health, depression, suicidal ideation and behaviour and trauma. The results showed that 15.5% (116) of the sample had experienced unwanted sexual contact before 17 years of age and of those, 8 participants (7%) had later sexual contact with underage children. There are limitations with methodology (e.g. phone call), notably the impersonal and non-anonymous nature of the interaction. As well, the use of a phone call may misrepresent the prevalence of both histories of abuse and offending as people may be reluctant to share such personal histories with a stranger and the study's design prevents true anonymity. As a result, while these results provide some support for the cycle of abuse, they should be interpreted with caution.

Worling (1995) studied the backgrounds of a sample of 87 adolescent males, between 12-19 years old, referred for clinical services who displayed sexual offending offender. He found that 75% of subjects in the sample, had histories of sexual abuse themselves. The prevalence of abuse in this sample is significantly higher than in either the general ID population or the general sexual offender population. It is possible that the treatment context of this study provided a conducive and safe opportunity for offenders to disclose abuse.

Romano and DeLuca addressed the cycle of abuse theory in their 1996 study. The sexual abuse histories and characteristics of three groups in the general population were examined and compared: offenders, sexual offenders and non-offenders. To this end, a modified version of Finkelhor's Sexual Victimization Survey (Finkelhor, 1979) was administered to 42 individuals: 14 sexual offenders, 14 non-sexual offenders and 14 non-offenders. They found eight sexual offenders had been sexually abused, compared to four of non-sexual offenders and two of non-offenders. There is a notable difference in the sexual abuse histories of those who sexually offended and those that engaged in non-sexual offending; as the cycle of abuse theory suggests,

individuals who engaged in sexual offending behaviour were more likely to suffer abuse themselves. In a related study, Romano and Deluca (1997) examined sexual abuse and its impact on the topography of future behaviour by examining a sample exclusively composed of offenders from the general population. To accomplish this, the authors administered The Sexual Victimization Survey (Finkelhor, 1979) to a sample consisting of 24 male sex offenders taken from Canadian prisons. The results showed that a disproportionate number of offenders, 16, had been victims of abuse. This represents 75% of the sample and is far higher than the author has quoted an average for a community sample of 17% and even significantly higher than the average for non-sexual offenders of 29% and shows support for a link between higher levels of abuse and later behaviour.

Weeks and Widom (1998) also studied a forensic sample of 301 male convicts from US prisons and found a link between early abuse and later criminal behaviour. Specifically, the authors found that 26.3% of sexual offenders were sexually abused when compared with 12.5% of non-sexual offenders, which represented a statistically significant difference and showed evidence of a link between topography of abuse (e.g. sexual) and topography of later behaviour.

Dhawan and Marshall (1996) studied the cycle of abuse and variables influencing offending behaviour. They examined the sexual abuse histories of a sample of 45 sexual offenders from the Warkworth Sexual Behaviour Clinic including 17 individuals who were undergoing treatment and 28 individuals who had completed treatment. The participants had varying offending histories; 29 were rapists, nine were child molesters and seven were incest offenders. A comparison group of 20 non-sexual offenders were utilized to account for any attempts to avoid blame by fabricating abuse in the sexual offender sample. Participants were placed in one of three groups: individuals who were not abused, individuals who were victimized

by non-contact based offenses and those who were victimized by contact based offenses. The results showed that 46% (30) of the combined sample of 65 participants had a history of sexual abuse. Of the sexual offending group, 58% (26) had experienced some type of sexual abuse in childhood but of the non-sexual offending group, 20% (4) had sexual abuse histories. This suggests a higher proportion of abuse seen in the criminal population in general, but most notably with individuals who later engage in sexually offending behaviour.

Craissati et al. (2002) examined the characteristics of sexual offenders with abuse histories and compared that population with offenders without abuse histories. They theorized that offenders with abuse histories would have increased childhood difficulties, increased levels of psychosexual dysfunction, and there would be topographical similarities between their previous abuse and later offending. A sample of 178 participants was considered from a community-based assessment and treatment agency, of which 156 were suitable for the study. It should be noted that individuals that targeted adult victims and those with a diagnosed mental illness were excluded from the study. The authors found that 46% (72) of the participants, had experienced sexual abuse and most of the abuse was committed by an acquaintance or stranger.

Stirpe & Stermac (2003) compared the abuse histories of 33 male sexual offenders and 66 non-sexual offenders in treatment at a psychiatric hospital. Results showed that almost two thirds (61%) of the sexual offenders had experienced sexual abuse as compared to 18% of the non-sexual offenders.

Jespersen, Lalumiere and Seto (2009) examined the hypothesis that sexual offenders are more likely to have histories of sexual abuse but not other types of abuse in order to test the cycle of abuse theory. They conducted a meta-analysis on studies published between 1975 and 2005 that addressed sexual offenders and sexual abuse histories. All studies had to be conducted

on adults, who were 18 years or older, with sexual offense histories and included information on sexual abuse, with other types of abuse optional. Abuse was split into three categories: sexual, physical and emotion/neglect. Of 17 studies that compared the abuse histories of sexual and non-sexual offenders, almost all studies (16) reported higher rates of previous sexual abuse amongst sexual offenders, while there were no significant differences between groups on rates of physical or emotional abuse. Three out of 5 studies found that previous sexual abuse was more likely with pedophilic rather than non-pedophilic offenders, and two studies found non-pedophilic offenders were more likely to have suffered physical abuse than pedophilic offenders. These three studies (Bumby, 1995; Overholser & Beck, 1989; Simons et al., 2002) showed that 28% of the non-pedophilic offenders (32 of 116) were sexually abused as opposed to 64% of pedophilic offenders (100 of 156) were sexually abused. However Bumby (1995) and Simons et al. (2002) found that 71% of non-pedophilic offenders (74 out of 104) were physically abuse while 42% of pedophilic offenders (61 out of 144) This systematic review lends support to the cycle of abuse in individuals who sexually offend however, the majority of offenders do not have reported histories of sexual abuse, suggesting that other explanatory factors need to be explored. There have been no subsequent systematic reviews of the literature relating to cycle of abuse theory.

The body of literature addressing the histories of individuals who sexually offend indicate that there is a higher presence of sexual abuse in the majority of samples from the general population. Given the relatively higher rates of abuse reported for individuals with ID in general, it is unclear whether the same cycle of abuse pattern is evident with individuals with ID who sexually offend.

The Cycle of Abuse with Individuals with an Intellectual Disability who Sexually Offend

A number of studies investigated the relationship being abuse and offending in samples of individuals with ID. In 1995, Beail and Warden examined the prevalence and characteristics of sexual abuse among individuals with learning disabilities (ID). From a sample of 211 individuals associated with Clinical Psychology Service over a four-year period in the United Kingdom, 88 of these individuals were involved in analytic psycho-therapy for sexually offending behaviour. To determine the history of abuse in this sub-sample of offenders, case notes were examined, and a questionnaire was administered when abuse was proven or highly probable. A history of sexual abuse was reported by 25% of the sample.

McCarthy and Thompson (1997) conducted a study to examine the abuse histories of a sample of 185 individuals referred for clinical service and support from the Sexual Education Team. Information from individuals' files were compiled and recorded in a questionnaire. They found that of 65 women with ID in their sample, 61% had been sexually abused compared with 25% of their sample of 120 men with ID. The authors defined two types of abuse for this study. Type A included those acts, which are illegal such as sex with children, those who cannot consent, staff, incest, or sexual acts with violence. Type B included those acts, which are not illegal but coercive, unequal or exploitative in nature. Of the women, 30% (12) suffered type A, 45% (18) suffered type B and 22% (9) suffered both and no information was available for the remaining participant. There was a similar finding with the men, as 37% (11) suffered type A, 30% (9) suffered type B and 23% (7) suffered both and no information was available for the remaining 3 individuals.

In 2001, Lindsay compared the abuse histories of two types of offenders with ID in a prison-based sample of those who engaged in sexual offenses and those who engaged in non-

sexual offenses. These groups were further distinguished by what type of abuse they had suffered: physical abuse or sexual abuse and those that offended sexually and those that offended in non-sexual ways. The study involved 46 individuals who had ID and sexual offense histories and 48 individuals with ID with non-sexual offense histories. Each participant underwent a comprehensive assessment by an independent assessor. Of the sexual offender group, 38% (17) experienced prior sexual abuse and 13% (6) had been physically abused. Of the non-sexual offender group, 33% (16) had been physically abused while approximately 13% (6) had been sexually abused. This gives rise to the hypothesis that individuals with ID might be more likely to replicate their experiences (e.g. adult-child sexual contact, exposure) and may be less able to apply abstract concepts to understand that what happened to them was abusive and therefore not to be replicated with others. The results lend support to the hypothesis that the experience of different types of abuse in childhood may be related to an onset and nature of offending in adulthood.

In 2002, Lindsay further conducted a literature review on the characteristics found in offenders with ID and found a high proportion of prior sexual abuse in sexual offenders with ID. This was in line with Lindsay's own findings in 2001 showing a greater proportion of sexual abuse in individuals who sexually offended than non-sexual offenders. However, Lindsay noted that there was some dispute regarding the cycle of abuse theory. He cited studies by Langevin and Pope (1993) and Briggs and Hawkins (1996) who pointed out that not all individuals who have been sexually abused will become sexual abusers themselves. Lindsay concluded by stating that there does appear to be a correlation between increased rates of sexual abuse and later offending behaviour, although relationships between variables do not demonstrate causation between abuse and offending.

In 2009, Hayes examined the background, sexual abuse, psychological factors, substance abuse and skill deficits in sexual offenders with ID. The authors point out that offenders in both general population and the intellectually disabled population face higher levels of both sexual and physical abuse. This study was conducted in order to determine what patterns of abuse, and subsequent psychological, behaviour and psychiatric symptoms were associated with a group of individuals with ID who engaged in sexually offending behaviour. Subjects were administered a clinical interview, looking at abuse, disorders, histories and characteristics. Sexual abuse and physical abuse were defined under the same criteria as Lindsay (2001). Of the 20 sexual offenders with ID, 30% (6) and of the 20 of the offenders without ID, 20% (4) had histories of sexual abuse.

Lindsay (2011) replicated previous research on abuse cycles and pulled together conflicting research on the impact previous sexual abuse history has on future sexual offending. As well, he looked at the potential impact that other types of abuse have on non-sexual behavioural problems. The sample came from 309 referrals to ID specific forensic service. Of those, 156 referrals came for sexual offending or abuse while 126 referrals were for other types of offending. Each participant underwent an extensive assessment by a team including an intelligence test and existence of abuse. The results showed that offending behaviour was correlated with the existence and type of abuse suffered in childhood. In total, of the 156 participants who exhibited sexual offending behaviour, 32.6% (51) had been sexually abused as opposed to 17.8% (22) of the 126 non-sexual offenders who had experienced sexually abuse. Of those who exhibited non-sexual behaviours 32.5% (41) experienced physical abuse compared with 16% (25) of the sexual offenders.

The presence of higher rates of previous abuse in samples of individuals who engage in sexually offending behaviour lends support to the theory that early abuse may lead to later sexually offending behaviour for individuals with ID as well as offenders in the general population. Given that the majority of individuals abused do not go on to become offenders, history of previous abuse alone does not predict later offending behaviour its impact may be influenced by gender and it appears more closely associated with females who commit sexual offences. In fact, almost all female offenders in the literature had abuse histories themselves. There is not a wealth of literature on the differential effects of abuse based on gender however there may be a trend in the literature towards the cycle of abuse theory being more prevalent for females, as female perpetrators appear more likely to have been abused. In 2001, Balogh et al. examined the sexual abuse histories of male and female adolescents with ID. The sample consisted of 43 individuals who were either perpetrators of sexual abuse, from a larger sample of 300. The authors found distinct gender differences throughout. When addressing offenders, there were 17 male offenders as compared to only 5 female offenders. Of the 17 male offenders, 65% (11) had been sexually abused. However, every female offender had a history of sexual abuse. This certainly lends evidences towards the cycle of abuse theory for both genders but is striking in its correlation to females. Additionally, there were six cases of males being perpetrators only but no cases of females being only perpetrators and there was only a single female perpetrator of abuse found amongst the victim group. Lindsay et al. (2011) reported in a sample of 27 female sexual offenders, 59% (16) were sexually abused compared with 32.6% (51) male sexual offenders. These results indicated that the prevalence of female perpetrators is lower overall and prior abuse history is more closely associated with female perpetrators than males. Gender differences as well as age of abuse statistics suggested that females are more likely to offend

based on prior abuse histories and that abuse in adolescence may be a factor in later sexual offending.

In 2007, Christopher, Lutz-Zoiand Reinhardt (2007) looked at the relationship between childhood sexual abuse and later sexual offending in females to identify what factors may influence the degree to which prior abuse contributes to later offending. The authors theorized that personality disorders in women were a contributing variable to later offending. The sample consisted of inmates of a women's penitentiary in the United States. Of a possible 122 women who had sexually assaulted minors, 61 agreed to participate and were eligible. The prison staff selected a comparison group of 81 individuals composed non-sexually based offenders. A number of scales were administered, including the Childhood Trauma Questionnaire (Bernstein, Fink, Handelsman, & Foote, 1994). The authors found that length of childhood sexual abuse was correlated with sexual-based offenders as opposed to non-sexual offenders.

Reasons for the Cycle of Abuse

Though there has been no conclusive causative link, various studies have attempted to explain why the cycle of abuse occurs and to determine what variables may influence its impact. For the general population, explanations for the cycle of abuse have suggested that histories of abuse may be inflated based on the setting. Romano & DeLuca (1997) found elevated rates of abuse for individuals who were convicted of sexual offending behaviour and suggested that there be bias in the disclosures and abuse may be overreported while offending behaviour was underreported. Dhawan and Marshall (1996) had a similar theory, stating that convicts may overreport abuse or that it may be more accurate than previous disclosures due to rapport and trust.

Conversely, authors were less likely to suggest intentional bias or misrepresentation for individuals with ID who engaged in offending behaviour. Lindsay et al. (2001) stated that this population was less likely to abstract and understand that prior abuse was wrong; instead, victims with ID may replicate their previous abuse in later offending. Lindsay et al. (2011) felt it was important for researchers to be aware of the possibility of fabricating prior abuse but echoed the previous belief that this population may be replicating early experience. Similarly, Hayes (2009) stated that social learning and imitation of previous abuse might be explanations for the cycle of abuse.

The existing literature offers a number of theories explaining a potential causal link between prior abuse and later offending. There is likely no one variable that moderates this relationship but instead a variety of factors, based on individual characteristics and circumstances, contribute to the impact of the cycle of sexual abuse on victims. These may be a combination of internal (e.g. healthy coping skills) or external (e.g. timely therapy and a supportive environment) variables.

Theoretical Framework:

Given the proposed factors contributing to the cycle of abuse, it is likely a combination of internal and external factors during the course of development that contribute to a cumulative impact on the individual. The Ecological Systems Theory was proposed by Bronfenbrenner (1979) to conceptualize child development and describes various systems in which individuals interact. Microsystems are those groups that directly impact a child, such as family or one's own biology, while mesosystems describe the interactions between microsystems, such as teacher and parent. Macrosystems describe the larger societal and cultural context in which a child lives.

These systems contain norms, relationships and beliefs that influence and shape a child's development.

Theories on the development of sexual behaviour may fit within a similar framework. Marshall & Barbaree (1990) proposed an integrated model of sexual offending behaviour that incorporated numerous factors and contributors. Internal processes, such as hormonal functioning, create an innate drive for sexual activity. Poor parenting and responses to sexual behaviour, including corporal punishment, can strengthen the connection between sex and violence in childhood. Patriarchal beliefs and cultural norms can exacerbate poor parenting and create distorted thought patterns that excuse or justify offending behaviour.

These systems and processes may also influence individuals with ID but in unique ways. Microsystems that could provide protection, such as sexual education and a strong social network, may be absent for individuals with ID. While other microsystems, such as physical development and hormonal change may be similar in individuals with ID, cultural norms and beliefs are often different with this population (Aunos & Feldman, 2002). Sexual behaviour, appropriate or otherwise, may be discouraged and opportunities for sexual expression limited. As a result, responses to sexual behaviour may be different and even abusive. As suggested by Marshall & Barbaree (1990), this abuse may strengthen the link between sexual behaviour and aggression and contribute to later offending (e.g. cycle of abuse). Further to this, histories of sexual abuse in individuals with ID, without context or education, may contribute to distorted thoughts patterns and a belief that such behaviour is appropriate. Within this framework, prior sexual abuse can play a pivotal role in the development of later sexual offending behaviour, especially within a sample of individuals with ID.

The following studies were designed to further my knowledge of the cycle of abuse theory and contribute to the existing literature on the subject. The phase 1 study examined the characteristics of prior abuse and offending behaviour in a sample of individuals with ID who were referred for clinical services. As the phase 1 study yielded weak support for the cycle of abuse in offenders with ID, a second study was completed. The most recently published meta-analysis on the cycle of abuse with sex offenders was published in 2009 (Jespersen et al., 2009). For the phase 2 study, a systematic review of the recent research on the cycle of abuse was completed to determine the degree to which the current literature continues to yield support for this theory and to aggregate any new findings on factors that may influence or be associated with prior abuse history for sexual offenders.

Phase 1: Clinical File Review Study

There is extensive research and literature discussing individuals who sexually offend in the general population (Hummel, Thömke, Oldenbürger, & Specht, 2000; Romano & DeLuca, 1996; Worling, 1995) including individual characteristics and patterns of the offending behaviour. Specifically, the overall body of literature points to an increased likelihood of sexual offending behaviour in adults when exposed to sexual abuse, supporting a theory of a cycle of abuse (Condy, Templer, Brown & Veaco, 1987; Hanson & Slater, 1988; Jespersen et al., 2009, Lindsay, Steptoe & Haut, 2012,).

Comparatively, there is limited research on individuals with ID who engage in sexually offending behaviour. This includes a dearth of literature on the unique characteristics of this population and how they may differ from other offenders. Further, there is limited information pertaining to the abuse histories of sex offenders with ID. However, when examining the literature pertaining to individuals with ID in general, there is a considerable body of research

evidence revealing higher levels of sexual abuse than the general population. The current study will replicate and add to the existing literature by addressing a portion of the population with limited research and specifically examining the existence of a relationship between abuse and offending within this population.

Research Questions

The first phase of the study was a retrospective file review designed to answer the following research questions and test the related hypotheses. What is the proportion of individuals who have experienced sexual abuse in a sample of offenders with intellectual and developmental disabilities? Studies show that individuals with ID are abused at higher rates than the general population (Powers, 2002; Reiter et al., 2007) and literature suggests that individuals with ID who sexually offend are also abused at higher rates. It was hypothesized that rates of sexual abuse reported in this clinical sample of individuals with ID would be higher than those found in samples of non-offenders with ID.

Is there a relationship between level of functioning and type of offending? Lindsay (2002) found that offenders with mild or moderate ID committed more contact-based offenses than those with more severe, or profound ID. It was hypothesized that individuals with a borderline, mild or moderate ID will engage in more contact-based sexually offending behaviour than those with more severe disabilities.

What is the pattern of criminal charges laid in this sample of offenders with intellectual and developmental disabilities? It was hypothesized that in this sample charges would be incurred at a higher rate for documented sexual offenses than has been reported for the typical population.

Method

Setting

The research was carried out at a community based behaviour agency in Ontario. It is a Ministry of Community and Social Services funded agency that provides behavioural services to individuals with ID. Specifically, files were drawn from a clinic working with individuals with ID (defined in that clinic as IQ of 70 or under) and documented sexual offending behaviour, with or without the presence of formal charges. The clinic operates using an outpatient, community-based model. The service received referrals directly from clients and from a variety of other sources including family members, case managers, residential staff, community support workers, and probation officers.

Participants

The participant data in this study were collected from a subset of files referred to the sexual behaviour clinic from April 1, 2000 to March 31, 2012. The sample includes individuals in a variety of living situations including supported independent living, independent community living, family homes, group homes, and treatment homes. Given the method of treatment and therapeutic modules used in the program, individuals with more severe or profound IDs may not benefit to the same degree as those with more mild disabilities. As such, individuals with more mild disabilities may be more likely to be referred and accepted into the program.

Measure

A file-review checklist was developed using a similar format and layout as the Scales of Independent Behaviour-Revised, (SIB-R; Bruininks, Bradley, Weatherman, & Woodcock, 1996). The checklist was divided into 3 domains: demographic information, sexual behaviour and abuse history. Each domain had its own questions, which included binary, continuous, categorical or

ordinal variables. Some questions were coded on both binary variables (e.g. presence or absence of charges) and continuous variables (e.g. number of charges). There were six variables collected for demographic information, 51 variables for sexual behaviour and 20 variables for abuse history. In total, 77 variables were inputted into a database and analyzed based on the presence of each type and potential combination of information (see Appendix A). Section one focused on demographics such as age of individual, sex, and diagnoses (e.g. intellectual disability). Section two collected data on sexual offending behaviour include type of behaviour (e.g. sexual assault of a child), frequency and victim type (e.g. family member, stranger). Offending behaviours were split into two types: contact-based and non-contact based. Offending involving contact was subcategorized as sexual assault against children, sexual assault against adults, and inappropriate touch. Sexual Assault is defined as forced sexual contact, sexual contact with someone unable to provide consent, someone coerced or bribed (Balogh, et al., 2001). Unless explicitly stated, all definitions were created by the author using terminology found in the literature as cited or were based on clinical presentation. Inappropriate touch was defined as any uninvited touch to the genitals, breasts or buttocks. Non-contact offending was subcategorized as invitation to sexual touch, child pornography, exhibitionism, voyeurism, and public masturbation. Invitation to sexual touch was defined as asking or requesting a child to touch sexually or genitals. Child pornography was defined as possession of child pornography. Exhibitionism was defined as exposure of genitals or private parts to another without consent or invitation. Voyeurism was defined as observing an unsuspecting person who was naked, in the process of disrobing, or engaging in sexual activity (American Psychiatric Association, 1994). Public masturbation was defined as masturbating or rubbing genitals in a public location.

Section three described participants' abuse histories, including sexual abuse (e.g. exposure to pornography), physical abuse (e.g. being struck) or neglect (e.g. absence of basic needs). These factors were selected based on the literature review in order to assess possible correlations or confirm existing patterns as many of these variables showed inconsistent or inconclusive patterns in the literature. Abuse was sub-categorized as either physical, sexual or neglect. Sexual assault is defined as forced sexual contact, sexual contact when unable to provide consent, coerced or bribed (Balogh et al., 2001). Sexual touch was defined as any uninvited touch to the breast or genitals. Exposure to pornography or sexual acts was defined as exposure to any of the above. Physical abuse was defined as being struck in any area of the body, thrown, pushed or forced against an object or being struck excessively on the buttocks. Verbal abuse was defined as being subjected to insults or threat. Neglect was defined as the absence of necessary or basic living standards, either tangible or emotional.

Ethical Review and Data Storage

The study was reviewed and approved by the research ethics board of Brock University and the research ethics board at the participating organization granted subsequent approval. All records and documentation were kept secure and on site at agency's community offices. The information used was already on site and kept in locked cabinets. Files were kept in separate locked storage before and after their immediate use for review purposes. Data was kept coded and anonymous; no specific identifying information was collected. The researchers, both with existing confidentiality agreements with the agency, were the only ones to access the files. File reviews were completed on the premises and only anonymous data was taken off site. Each file was assigned a participant number, and no identifying information to link the review back to the

participant was retained. For the duration of the study the participant number was left in the file for reliability coding purposes.

File Reviews

Most files were subdivided into folders based on the domain: assessment, treatment, diagnostic information and previous reports. Files were reviewed by looking first at previous assessment reports, which were the richest source of information. Then, handwritten case notes were reviewed, which provided chronological updates. As data was discovered in the file, it was inputted into the checklist immediately onsite. Each area and domain of the files (e.g. assessment) was read and reviewed until all areas of the checklist were complete or confirmed as undocumented.

It should be noted that there was a degree of interpretation needed to complete the checklist; for instance, one of the variables collected would be frequency of offending behaviour. If a case appeared without formal charges, then case notes were reviewed, and each occasion separately analyzed to determine which offending behaviour (or combination it would be). Operational definitions were consulted to ensure that checklist completion was consistent even if it was not precisely labelled in the file. For instance, if an individual were charged with sexual assault, it would be coded as such. However, if the behaviour were simply described without a formal label (e.g. cornered peer at day program and fondled genitals) than the operational definitions were consulted to provide the coding label. This approach was applied to both histories of abuse and offending. Abuse was categorized as physical, sexual or neglect. If there was no formal label attached (e.g. through a Children's Aid Society report), then operational definitions were consulted to determine what type of abuse was present.

History of abuse was typically located in the participants' assessment reports. Assessment reports were a valuable source of data as they synthesized the information available at time of involvement. The participant's history of abuse was often located in its own section of the report, however the context and source of the disclosure was rarely documented. While previous literature (Jespersen et al., 2009) reported the self-disclosures were often a source of information, this study cannot make any definitive statements regarding source of abuse histories report in this sample.

Inclusion and Exclusion of Files

The framework and scope of this study changed over time. Under the original proposal, all adult referrals between April 1, 2000 and March 31, 2012, for both the sexuality and behaviour clinics in two community sites would be considered for this study. In this design, the behaviour clinic files would serve as a control group of non-sexual offenders. The hypothesis was that the type of abuse (e.g. sexual or non-sexual) would correlate with type of later behaviour.

Using these criteria, the initial review yielded a total of approximately 1200 total files between the sexuality and behaviour clinics across the two sites. Upon review of these files, a systematic documentation issue was discovered. There was no procedure or policy for collecting information on abuse of any type for files in the behaviour clinic; these files typically did not include reference to the history or ruling out of prior abuse. The absence of this information in the clinical files was surprising, given that abuse history is regularly considered in clinical formulation, suggesting a systematic bias away from recording this sensitive information. As such the approximately 1000 files from the behavioural clinic could not be used in this study.

There was no systematic coding or storage process to differentiate the sexuality clinic files from the behaviour clinic files at the second site, as all files were stored together. Further, clinical notes from both sexuality clinic and behaviour clinic were included together in some client files but others had 2 separate files. Due to these inconsistencies in recording practices over time, the 128 files from this site were excluded to avoid systematic bias.

This left approximately 72 adults referred to the sexuality clinic at the first location within the specified timeframe. Among these files were participants who had exhibited no problematic behaviour, but were referred for education or skills training. These files were subsequently eliminated. The remainder of files were further reviewed to identify issues such as duplication and insufficient data. Files that lacked multiple pieces of critical information including date of birth, level of disability and confirmation of offending behaviour were then eliminated. Of that 72, 37 total files met criteria for inclusion in this study.

Completion of File Review Checklist

First, information from the file reviews was inputted by hand onto the checklists in each of the three domains. Then data from the checklists was coded and entered into an Excel spreadsheet, alongside an anonymous numeral identifier. This spreadsheet was populated with the data from the checklists until every file was inputted. Once complete, this spreadsheet contained all the raw data from the checklists, coded and anonymous, which was subsequently entered into SPSS for analysis.

Reliability

To establish reliability, inter-observer agreement data was collected using an independent, secondary assessor. Once all the files were reviewed and the data collected, a secondary assessor was trained on the use of the checklists and the coding system. First, she was taken through the

file review process and two checklists were completed as demonstration. All information in the files was used however official reports were the most frequent and efficient source of information. Other data came from contact and consultation notes, however the specific detail entailed varied by client. The assessor then completed two file reviews and checklists herself under supervision and direct instruction. Next, she completed file reviews and checklists on five randomly selected files independently; these checklists were compared to the ones previously completed to determine agreement. Checklists were compared on each data point with a passing criterion of 85% agreement (66 points or higher).

The initial set of IOA data fell short of this (56.79%) so the secondary assessor was retrained using the same procedure with the areas of inconsistency in the initial IOA also specifically targeted in the retraining. The second assessor completed an additional 13 file reviews and checklists, the IOA data improved notably (87.96%), and these 13 checklists were used to establish the reliability of the checklists and data for this study.

Data Extraction and Abstraction Procedures

Coded data was entered into SPSS and frequency data was run on the following variables (Analyze[Symbol]Descriptive Statistics[Symbol]Frequencies): age, gender, functioning level, charges, behaviour type, victim gender, victim relationship, pattern of offending, presence of sexual abuse, type of abuse, and pattern of abuse. As well, descriptive data was run on age at time of offense and age of victim (Analyze[Symbol]Descriptive Statistics[Symbol]Descriptives) with missing data excluded from the analysis.

Results

Demographics

The final sample included 37 participants, of which 36 were male offenders and 1 was a female offender. The individuals in the sample were aged between 18.20 and 57.80 years old and with an average age of 23.3 years ($SD=13.4$). Age was not found for four participants. The level of intellectual disability was found in the file for 62.16% (23) participants. Of those 23 for whom level of ID was reported, 21.74% (5) were described as having borderline intellectual functioning, 39.13% (9) had a mild ID, 34.78% (8) had a moderate ID and one had a severe ID.

Offending Behaviour

The frequency of specific types of offending behaviour exhibited by participants in this sample are found in Table 1. The frequencies describe the number and proportion of individuals who committed each type of offence (e.g. contact or non-contact) and each specific offending behaviour (e.g. sexual assault). It should be noted that these numbers aren't mutually exclusive as individuals often engaged in more than one type of offense. A total of 31 participants, or 83.78% (31) had committed a contact offense of some type (e.g. sexual assault) while over half the sample (56.76%) committed a non-contact offense (e.g. public masturbation) (see Table 2). The most frequent offenses were sexual assault of an adult (22.95%) and public masturbation (21.31%) and almost half of the offenders (45.95%) had committed more than one type of offense. Victim gender was known for 31 participants in the sample, and the majority of offenses were committed against women (62.16%), either only women (48.65%) or in combination with male victims (13.51%). A victim's relationship to the offender was known for 31 participants in the sample; the victim and offender knew each other in 23 of those cases, was a relative for three individuals, a housemate or staff for five individuals and a combination of victim relationships

for 12 individuals (See Table 3). Age during offending behaviour was known for 24 individuals, just under two thirds of the sample (65%) of the sample and ranged from 12 to 59 years, with an average of 33.81 years of age and median age of 32 years ($SD=14.15$). Age of victim was known for eight individuals and was on average 10 years of age ($SD=4.47$) and a range of 4-19 years. The majority of offenders, 81.08% (30) of the sample, engaged in repeated offending behaviour \ and only 7 individuals, 18.92%, engaged in a single offense. Charges were laid against 40.54% of the individuals in this sample for their sexual offending behaviour, while 59.46% of the sample had no evidence of associated charges.

Table 1

Frequency of Type Offending Behaviour per Participants

Type of Offense	Number of Participants	% of Participants
Contact Offenses	15	41
Non-Contact Offenses	6	16
Both Contact and Non-contact Offenses	16	43
Total	37	100

Table 2

Frequency of Specific Offending Behaviour Across the Sample by Type

Type of Offense	Number of Offenses	% of Offenses
Sexual Assault Adult	14	23
Sexual Assault Child	12	19.5
Inappropriate Touch	12	19.5
Invitation to Sexual Touch	5	8
Voyeurism	4	7
Public Masturbation	13	21
Possession of Child Pornography	1	2
Total	61	100

Table 3

Relationship Between Victim(s) and Offenders

Victim relationship	Number of Participants	% of Participants
Sibling	1	2.70
Other Relative	2	5.40
Support Staff	2	5.40
Housemate	3	8.11
Stranger	8	21.62
Other	3	8.11
More Than One Type	12	32.43
Unknown	6	16.21
Total	37	100

Table 4

Gender of Victim (s) by Offenders

Gender of Victim (s)	Number of Participants	% of Participants
Male	8	21.62
Female	18	48.65
Both	5	13.51
Not Reported	6	16.22
Total	37	100

History of Abuse

Abuse histories were categorized as sexual abuse, physical abuse, neglect or a combination of the three. In total, 35.14% (13) experienced some form of abuse. Of those, three individuals reportedly experienced exclusively non-sexual abuse while 10 individuals, just over a quarter of the sample (27.03%) reportedly suffered some type of sexual abuse; this abuse was sub-categorized as sexual assault, sexual touch or exposure to pornography (see Table 5). Abuse in general occurred on repeated occasions for 38.46% (14) of participants compared with single occasions for three individuals. This information was not reported and therefore coded as unavailable for just over half 53.85% (20) of the sample.

Table 5

Type of Abuse Experienced by Participants

Type of Abuse	Number of Participants	% of Participants
Sexual Assault	5	13.51
Physical Abuse	1	2.70
Neglect	1	2.70
Combination (Non-Sexual)	1	2.70
Combination (Sexual)	5	13.51
No Notation of Abuse History	24	64.86
Total	37	100

Table 6

Offending Behaviour by Participants' Level of Disability

Behaviour Type	Borderline n=5 % (n)	Mild n=9 % (n)	Moderate n=8 % (n)	Severe n=1 % (n)	Unknown n=14 % (n)
Sexual Assault of a Child	5.41 (2)	2.70 (1)	5.41 (2)		2.70 (1)
Sexual Assault of an Adult	2.70 (2)	2.70 (1)	2.70 (1)		8.11 (3)
Inappropriate Touch					5.41 (2)
Multiple Contact Types					
Invitation of Sexual Touch		2.70 (1)			
Public Masturbation					8.11 (3)
Voyeurism					2.70 (1)
Multiple Non-Contact		2.70 (1)			
Contact and Non-Contact	2.70 (1)	13.51 (5)	13.51 (5)	2.70 (1)	10.81 (4)
Total	13.51 (5)	24.32 (9)	21.62 (8)	2.70 (1)	37.84 (14)

Table 7

Type of Offense by Participants' Level of Disability

Level of Disability	Type of Offense	Number of Participants	% of Participants
Severe	Contact Only	0	0
	Non-Contact Only	0	0
	Both	1	2.70
Moderate	Contact Only	3	8.11

	Non-Contact Only	0	0
	Both	5	13.51
Borderline/Mild	Contact Only	6	16.21
	Non-Contact Only	2	9.10
	Both	6	2.70
Unknown	Contact Only	11	29.73
	Non-Contact Only	3	8.10
	Both	0	0
Total		37	100

Summary of Results by Research Question

1. What is the proportion of individuals who have experienced sexual abuse in a sample of offenders with intellectual and developmental disabilities?

Over a quarter of the current sample, 27.03% (10) experienced some documented form of sexual abuse. A chi-square test of goodness of fit was performed to determine if the proportion of individuals in this sample that were abused was similar to a previously reported number (Lindsay, 2001). The percentage of individuals reporting abuse in this sample did not differ from previous literature ($\chi^2 (1, 37) = 0.53, p > .05$).

2. Is there a relationship between level of functioning and type of offending?

There were 22 individuals described as having borderline intellectual functioning, mild or moderate ID, of which 90.09% (20) engaged in a contact offense and 54.54% (12) engaged in multiple offense types (Table 6). There was only one individual with a severe ID; he engaged in inappropriate touch and public masturbation. The sample notably contained more

individuals who reportedly had borderline intellectual functioning, mild, or moderate ID, than with more severe disabilities. There were also 14 participants for whom level of functioning was not reported. Given the lack of participants identified as having more severe level of ID and the uneven distribution of diagnoses it is difficult to make conclusive statements or generalize these findings to all individuals with ID who engage in offending behaviour.

3. What is the pattern of criminal charges in our sample of offenders with ID?

Criminal charges relating to sexual offending were reported for 40.54% of this sample. When looking at the general population, a study commissioned by the Globe and Mail (“Unfounded: Why Police Dismiss 1 in 5 Sexual Assault Claims Baseless”, 2017) found that 42% of sexual assault claims in Canada led to charges; however, when claims that are dismissed by police as unfounded are included, it lowers to 34%. Given that the number of 34% includes all documented claims, this will be used for comparison. A chi-squared, goodness of fit test was run to determine if the proportion of individuals in this sample who were charged after reported offenses was different than that of the general population. Using these findings of 15 individuals with charges (out of 37 total) against the proportion of charges in the general population (34%), we found no statistically significant difference between the pattern of charges laid in this sample versus the selected prevalence rate in the general population; this suggests that charges laid in this sample consistent with charges laid for sexually assault in general. ($\chi^2 (1, 37) = 0.44, p >.05$).

Discussion

This study examined key factors relating to the sexual offending behaviour of individuals with ID. Data were collected from clinical files of 37 adults (18 years or older) with ID receiving

treatment for sexual offending. A systematic retrospective file review and coding procedure was used to develop reliable coding of clinical files. The study sought to answer three specific research questions and examine hypotheses derived from a thorough review of the literature. The first research question examined the abuse histories of individuals with an intellectual disability who engaged in sexually offending behaviour. It was expected that a higher proportion of individuals in my sample would have experienced sexual abuse in their own history compared with the 25% reported for the population of individuals with ID in general (McCarthy & Thompson, 1997). Results revealed that individuals' abuse histories were not different from that previously reported in the literature. Of 37 individuals in the sample, 27.03% (10) had histories of sexual abuse, which is virtually identical to previously reported prevalence rates for samples of individuals with ID referred for sexual education (McCarthy & Thompson, 1997). As previously noted, a chi-squared, goodness of fit test was run to determine if the proportion of individuals in this sample who had abuse histories was different from that found by Lindsay (2001). Setting a significance level of .05 and using the findings for 10 individuals with charges (out of 37 total) against the rate of abuse found by Lindsay (38%), we found no statistically significant difference between the percentages of individuals reporting abuse in this sample than the percentage found in previous literature.

The second research question sought to examine potential relationships between level of functioning and type of offending. Based on findings reported by Lindsay, 2001, it was expected that a higher proportion of individuals with borderline, mild or moderate ID will engage in contact-based offenses, compared with those with more significant disabilities (severe or profound intellectual disability). This study found that 90.09% (20) of individuals with a borderline, mild or moderate ID engaged in contact-based offenses. However, there was only one

individual in the sample with a severe ID and that individual engaged in a contact-based offense. Given the lack of individuals with a severe or profound intellectual disabled to serve as a comparison, we were unable to assess whether functioning level correlated with type of offense. A major confound to this analysis was the lack of information on level of functioning for 30% of the sample making this result difficult to interpret. The absence of recorded information relating to level of functioning is noteworthy as this represents an important factor in treatment selection. Likely the clinician had a solid understanding of their client's abilities when designing treatment but did not include that impression in the clinical file.

The third research question related to the proportion of offenders with ID in this sample charged with offenses compared with proportions in the general population. Previous research by Crocker et al. (2007) has suggested that individuals with ID who sexually offend may be overrepresented in the justice system. A chi-square test of goodness of fit test found no statistically significant difference between the patterns of charges laid in this sample when compared with the expected rate in the general population. However, the relatively small sample size (37) has considerably lower statistical power resulting in a limited ability to detect a significant difference. With a markedly higher sample size, the noted difference in the prevalence of charges (34% vs. 40.54%) might be both socially and statistically significant, indicating that individuals with ID who sexually offend have relatively comparable experiences and sanctions.

Limitations

The number of files reviewed in the study was far smaller than initially anticipated and there was an unexpected amount of information missing from the records, which severely impacted the findings of the study. Though 1200 files were available across the clinics and sites,

after reducing the number of eligible files based on region, referral behaviour, and years of service, the initial number of files collected for inclusion was 72. However, almost half of those 72 were deemed ineligible due to age (<18), absence of offending behaviour (e.g. referral only for sexuality education), or incomplete file (e.g. volume 2 unavailable, clients' early withdrawals from service). As such, only adults were included in this study and all files for child and adolescent clients were excluded. This constituted a significant portion of files and for many files this was not evident until further review of contact notes to determine when involvement began. Individuals who were referred to treatment for non-offending concerns were excluded. Additionally, the nature of the clinical service varied and some individuals received education or counselling rather than treatment for offending behaviour. These individuals were referred for a variety of reasons including gaps in knowledge or past histories of abuse. Given the nature of this study, they were excluded from the sample.

Insufficient information was a substantial barrier in this study and contributed to the elimination of numerous files. Even those that were kept and included in the study contained gaps in the documentation. Given the nature of referrals, information was abundant on offending behaviour. Typically, individuals were referred for a specific problematic behaviour and this behaviour, while described with varying degrees of detail, was documented. Though presence of ID was always confirmed, there was frequently insufficient information on the level of disability to categorize the file. Information on sexual abuse histories was critical to this study, however documentation on abuse histories was only sporadically found in the files and the recording process was very inconsistent. It is possible, but likely implausible that clinicians did not always consider the history of abuse in their clinical assessment. It is more plausible that clinicians would have assessed for historical abuse and would have considered it a contributing factor to

sexual offending, especially for individuals with ID who are at higher risk for abuse of all types. However, even if consistently assessed, a description of that assessment process, and the presence, absence, or unknown status of abuse, was not consistently documented. As such, history of abuse was difficult to ascertain and unless noted clearly in the file, it could not be gleaned for this study. This study clearly reveals the need for consistent recording practices and the potential development of a recording system for key demographic and clinical variables.

Another limitation was the small sample size due to the limited number of viable files for review. The size of the sample limits the conclusions that can be made and any generalizability of the results. The limited information available in some files that were included in the study prevents strong conclusions from being made on specific factors. The unexpectedly small sample size is insufficient to determine the correlation between functioning level and type of offending behaviour. As noted earlier, the findings relating to the relationship between charges and abuse may have reached social and statistical significance with a larger sample.

The methods for storing files changed over time as well. Files until 2014 were kept in locked cabinets with the consultants assigned to the client; once these files were closed, they were kept either with the coordinator or in a separate storage room. The file system was not standardized, and the method depended on who was overseeing the waitlist at any given time. After 2014 files were all stored in a separate area upstairs, within individual locked storage cabinets. Many of the client files from the sexuality clinic were stored alphabetically alongside with files from the behaviour clinic; the colour coding of the files in both clinics was identical and it took individual file reviews to determine to which clinic the files belonged. Some of these clients were referred to both clinics, re-referred to the sexuality clinic and/or were so large they required two files. It is impossible to guarantee there was not cross contamination between

sexuality clinic files and behaviour clinic files; information meant for an individuals' sexuality clinic file might have been stored elsewhere, leading to some of the missing data.

The lack of a control group of non-sexual offenders or non-offenders significantly limits conclusions that can be made. The initial study design included a control group of individuals with an intellectual disability who were not known to engage in sexually offending behaviour but were referred for other behaviour concerns. However, a pilot review found those files contained no record of abuse history so that group was excluded from the study. As a result, no statements can be made on the degree to which sexual abuse contributes to the onset of sexually offending behaviour rather than generic criminogenic behaviours in this sample.

Strengths

The information on offender and victim characteristics provided in this study is absent in other research in the area. In previous studies Hayes (2009) reported abuse histories and subsequent behaviour disorders while Lindsay et al. (2012) reported on sexual and non-sexual abuse. Unfortunately, neither study provided information on the type of offending behaviour or victim characteristics in the sample. In the current study a pattern in offenses was identified, as 89% of the sample engaged in contact-based offenses and the most frequent behaviour was sexual assault. Almost one third of the sample had a diverse type of offense. Victims were strangers in 22% of cases. This information is of practical benefit for clinicians; information on the type of offenses and risk for contact-based crimes is lacking for offenders with ID.

The information presented on offending and victim patterns can contribute to our understanding of this population and may challenge inherent biases. As discussed, attitudes towards reporting crimes by this population vary (McBrien and Murphy, 2006) and that may lie in the belief that this behaviour is a mistake or inappropriate rather than criminal. Data on the

prevalence of contact-based offenses, even in those with severe or profound disabilities, may help provide a more accurate understanding of risk and potential for harm. It was hypothesized that individuals with higher levels of functioning would engage in contact-based offenses. This pattern was not found in this sample and in fact, a large majority of individuals engaged in contact-based offenses, regardless of level of disability. Of the total sample, 89% engaged in contact-based offenses; only one individual in the sample had a profound or severe disability and he engaged in a contact-based offense. For comparison, Alanko et al. (2017) categorized offenses committed by neuro-typical offenders based on whether they were contact (e.g. sexual assault) and non-contact (e.g. child pornography). The authors collected an anonymous sample from the general population and of 138 individuals who engaged in sexual offending behaviour, 62% engaged in contact offenses.

Previous research rarely includes data either regarding age of abuse or offending. This could be valuable and assist in assessing risk of offense later in life and allocating resources in early intervention treatment. There was also minimal information on the previous living histories and prior criminal charges of individuals with ID who sexually offend. Information on living histories could speak to the relevance of environment on risk and could provide a treatment target. As well, previous studies indicate that sexual offenders often have poor relationship histories (Romano and Deluca, 1996); however, the lack of relationship opportunities traditionally provided to individuals with ID means verifying its link solely to sexual offending will be difficult.

This study contributed interesting information on this population's involvement with the justice system. We found a conviction rate of 40% for documented sexual offenses. This is very comparable and not significantly different from the rates of conviction in the general population

but it may be for different reasons. As noted in the 2017 Globe and Mail article, police dismiss a significant number of sexual offense complaints after being reported which leads to lower rates of conviction. While Thompson and Brown (1997) reported that individuals in this population might face harsher sanctions for sexual crimes, McBrien and Murphy (2003) showed evidence of a bias within service providers and a reluctance to report sexually based crimes. It is quite likely that offenses committed by individuals with ID are not even reported to police, as care providers may assume ID offenders lack culpability and responsibility for their crimes and feel treatment, rather than arrest, is a better option. This may explain why rates of conviction were lower than expected and given the nature and severity of the offenses committed by this sample, that potential bias could have significant consequences and impact the likelihood of future offending.

Future research

Future research should address the correlation between offending and abuse by making a number of adjustments to my file reviews. Follow up studies should increase the sample size and the number of participants as much as possible. To accomplish this, researchers may need to draw a sample from multiple agencies and locations. This increased sample size will allow further statements to be made on demographic information and provide a clearer picture of offender characteristics.

A control group should be established, consisting of individuals who have engaged in non-sexual offending behaviour as well as non-offenders to allow comparisons to be made. Presence of abuse is correlated with later offending and if the specific type of abuse plays a contributory role. Lindsay (2001) provided an indication that later offending behaviour may match earlier abuse experiences and more research into the risk early trauma plays in later behaviour would be extremely valuable. The inclusion of a non-offending control group would

allow for exploration into potential protective factors that differentiate an abused population that goes on to offend from a group that does not.

Research should focus on the interactions and moderating factors that contribute to later offending behaviour in a sample of individuals who have been abused. Research indicates the cycle of abuse may be more prevalent with women, though this interaction is difficult to establish without further literature. Given the limited number of female offenders it will be critical to pull from as wide a sample as possible. As well, the abuse-abuser interaction may be influenced by presence of ID; studies showed that a higher population of offenders with ID were abused though in the neuro-typical population, though this increased presence of abuse is reflective of the ID population in general. Level of disability may play a role in the nature of offending as well; in my study, every individual with a severe or profound ID engaged in a contact-based offense. Though my sample size was too small (8) to make any definitive conclusions, larger samples drawn from diverse populations may provide insight into any potential links.

Missing information presented a notable barrier to my file review and the conclusions that can be made. Future studies should take steps to mitigate this limitation. File criteria should be established to eliminate inappropriate files and agencies that lack the necessary standard of documentation. Establishing such a criterion demanding specific evidence of relevant items would allow a more appropriate file and sample selection with sufficient data to make robust conclusions.

Policy Implications

Study 1 highlighted systematic recording and documentation flaws in both the community based behaviour service and the sexuality clinic and the need for more formal

procedures and protocols. Lack of documentation contributed directly to the exclusion of a significant portion of the participants and the need to redesign the study. The files in the intended control group lacked documentation of abuse; this suggests that formal intake or assessment does not directly target history of abuse. Further, knowing that history of abuse is considered during case involvement but not readily available in files suggests the need for documentation training. Given that prevalence of all types of abuse for individuals with ID is notably higher than the general population, this is a significant gap in documentation that could dramatically impact treatment targets and recommendations.

The systematic omission in documentation suggests that agencies need to consider the creation of an overseeing body or committee to address the issue. This committee could then establish a set of subsequent regulations outlining the standards of information required during assessment and intake. Such regulations would include a formalized process of collecting critical clinical information to ensure proper case formulation.

Conclusion

In order to determine the relationship between sexual abuse and later sexual offending behaviour, a sample of files were reviewed from individuals referred for clinical, behavioural services. Information was transferred from the files, to a structured checklist to be coded. Analysis was conducted on this data to determine correlations and patterns in prior abuse and later offender.

Despite hypotheses to the contrary, the frequency of history of abuse in this clinical sample of individuals with ID who exhibit sexually offending behaviour was consistent with both the reported prevalence of abuse for sexual offenders from the general population (Weeks & Wisdom, 1998) and with a previous sample of individuals with ID who have sexually offended

(Lindsay, 2011). The responses from authorities to sexually offending behaviour exhibited by this sample did not differ significantly from the responses to similar offending in the general population. Perhaps one of the most important overarching findings from this study is the need for the development of more consistent clinical recording methods to ensure that assessment processes and outcomes are clearly documented and available in the clients' files for future use.

Phase 2: Meta-Analysis

Introduction

In order to further determine the validity of the theory of cycle of abuse, a literature review/meta-analysis was conducted, replicating an earlier study by Jespersen et al. (2009). The original study, which captured all relevant articles on the cycle of abuse published between 1975 and 2005, was conducted to compare the abuse histories of sexual offenders and non-sexual offenders to determine if there is an association between prior experience and later behaviour. The purpose of the current meta-analysis was to update this information and explore the same association by synthesizing the literature conducted since 2005 to determine if the cycle of abuse has increased support in the literature since that time. It is assumed that additional research will be available and will provide similar evidence supporting an increased probability of sexual abuse histories with individuals who engage in sexual offending behaviour.

A comprehensive search of all the literature published since 2005 was conducted using the same online resources as the original study. Reference lists and citation indices were also reviewed to ensure the widest range of literature and increase likelihood of capturing all relevant studies. The results from these studies and the trend in literature regarding the cycle of abuse from 2006-2017 are discussed below.

Method

Previous Study

Jespersen et al. (2009) completed an exhaustive search, selected relevant literature, and analyzed studies from 1975 until 2005, which examined the relationship between early abuse and later offending. Their search strategy included keyword searches of the online databases PsycInfo, ProQuest Digital Dissertations, and Academic Search Premier. The authors used the keywords [sex* offen* or sex* crim* or rapist* or rape* or sex* assault* or pedophil* or sex* aggress* or child* molest* or voyeur* or exhibitionis*] and [neglect* or physical* abus* or abus* victim* or (child* N4 domest* violen*) or [expos* N4 (abuse* or violen* or assault*)]] and [English language and year = 1975–2005] to narrow the results. The meta-analysis was designed to synthesize all possible studies relating to the cycle of abuse, which required a thoroughly comprehensive search of the literature. The authors wanted to include a variety of offending behaviours, both contact (e.g. sexual assault) and non-contact (e.g. voyeurism) as well as victim types (e.g. pedophile). To this end, the search words were selected to capture the widest range of results and variations of terms. For instance the key word offen* would capture the terms "offend", "offender", "offending" and "offense", which minimizes the probability of missing relevant studies and research. Such a wide range of search terms captured studies that included non-criminal sexually offending behaviour as well. Jespersen et al. (2009) used strict inclusion criteria. First, only studies that compared the abuse histories of sexual offenders to non-sexual offenders or studies that compared the abuse histories of different types of offenders were included. Studies that discussed only non-sexual abuse or compared sex offenders to non-offenders (i.e. the general population) were excluded. As well, the data presented had to be quantitative prevalence data; studies that only provided qualitative or anecdotal data were

excluded. Second, only studies that focused on adults (defined as 18 years or older) were included; any studies focusing only on juveniles or adolescents were excluded. Third, only studies that included data on sexual abuse were included; those that only reported on non-sexual abuse were excluded. Fourth, only studies published between 1975 and 2005 in English language publications were included.

Their search led to 24 articles, publications or dissertations, which compared sexual and non-sexual offenders' histories of sexual abuse or compared sexual offense subgroups (i.e. offenders that target adults vs. offenders that target only children) histories of sexual abuse. The authors collected the following information from each study: number of participants, age of participants and prevalence of abuse in sample. Abuse was sub-categorized as physical abuse, sexual abuse or emotional abuse/neglect.

From the prevalence rates, the authors used odds ratios to determine the direction and size of the group differences. The odds ratio describes the probability of an event occurring in a treatment group to the odds of the event occurring in a control group. It compares the likelihood of one event (e.g. sexual abuse) occurring or not occurring between two groups (e.g. sexual offenders vs. non-sexual offenders). Jespersen et al. (2009) provided an odds ratio to compare the probability of sexual abuse histories in individuals who engaged in sexual offenses to those that engaged in non-sexual offenses; an odds ratio over 1.00 means an increased prevalence of abuse in the first group, while an odds ratio under 1.00 shows a decreased prevalence of abuse

Present study

The present study replicated and updated the previous meta-analysis by Jespersen and colleagues (2009) by including studies published between 2006 and 2017 and to determine what research has been added to the subject. To do so, we used the same databases as the previous

study: PsycInfo, ProQuest Digital Dissertations and Academic Search Premier. However ProQuest Digital Dissertations has now been renamed ProQuest Dissertations and Theses Global and features a larger collection of research. The original authors did not have access Academic Search *Premier*, instead using Academic Search Complete; the latter is a larger collection and offers a greater selection of research.

After consultation with a research librarian, the search terms were adjusted to better suit the databases and capture the appropriate studies. In Academic Search Complete the following search string was used: ("sex* offen*" or "sex* crim*" or rapist* or rape* or "sex* assault*" or pedophil* or "sex* aggress*" or "child* molest*" or voyeur* or exhibitionis*) AND (neglect* or "physical* abus*" or "abus* victim*" or (child* N4 "domest* violen*") or [expos* N4 (abuse* or violen* or assault*)]). The date range for inclusion was 2006-2017.

In PsycInfo the following search string was used: "sex* offen*" OR Any Field: Any Field: "sex* crim*" OR Any Field: Any Field: rapist* OR Any Field: Any Field: rape* OR Any Field: Any Field: "sex* assault*" OR Any Field: Any Field: pedophil* OR Any Field: Any Field: "sex* aggress*" OR Any Field: Any Field: "child* molest*" OR Any Field: Any Field: voyeur* OR Any Field: Any Field: exhibitionis* AND Any Field: Any Field: neglect* OR Any Field: Any Field: "physical* abus*" OR Any Field: Any Field: "abus* victim*" OR (Any Field: Any Field: child* N4 "domest* violen*") OR (Any Field: Any Field: expos* NEAR/4 abuse* OR Any Field: Any Field: violen* OR Any Field: Any Field: assault* AND Open Access AND Peer-Reviewed Journals only AND Year: 2006 To 2017

In ProQuest the following search string was used: "sex* offen*" OR Any Field: "sex* crim*" OR Any Field: rapist* OR Any Field: rape* OR Any Field: "sex* assault*" OR Any Field: pedophil* OR Any Field: "sex* aggress*" OR Any Field: "child* molest*" OR Any Field:

voyeur* OR Any Field: exhibitionis* AND Any Field: neglect* OR Any Field: "physical* abus*" OR Any Field: "abus* victim*" OR (Any Field: child* N4 "domest* violen*") OR (Any Field: expos* NEAR/4 abuse* OR Any Field: violen* OR Any Field: assault*). The search field was also changed to "anywhere but full text". The date range for inclusion was 2006-2017.

The title and descriptions of each result in the database searches were reviewed and categorized based on likelihood of being included in the final analysis. The reference lists of review articles were examined to find articles that specifically address the cycle of abuse. To ensure consistency with the original meta-analysis, only publicly available articles, theses, and dissertations were included. From the title and descriptions, any results that were considered "possible" for inclusion were documented and their abstracts were read. The four inclusion criteria outlined in Jespersen et al. (2009) were applied to determine what could be excluded at this stage. Studies that were considered "likely" for inclusion were downloaded in full and reviewed again. Studies that met inclusion criteria after full review were collected and used for analysis.

To capture any relevant articles references lists of any review or empirical articles published within the time frame were also searched. First, any literature reviews that were captured in the database searches were identified. Then all the results from ProQuest, PsycNet and Academic Search Complete were searched using the following search terms: "review", "empirical", "cycle of abuse" and "abuse-abuser" within the article's title. Results were sub-grouped from PsycNet to show any literature reviews and empirical studies. Those literature reviews were used to identify any further articles for inclusion and added to those captured in the database search. The reference lists of any articles that were included in the initial database searches as "likely" were reviewed for any articles that might meet inclusion criteria. Finally, we

created a citation index for Jespersen et al. (2009) using Web of Science and Google Scholar; these articles were reviewed for inclusion as well.

Results

Search Results

Using those search strings, a total of 4249 studies, articles and dissertations were reviewed. Academic Search Complete yielded 3004 results. From those 3004 results, 18 were marked as “likely” to be included in the study based on review of their abstracts. Each of those 18 studies were downloaded or reviewed in full to determine eligibility and based on the criteria, seven of the studies were included in the meta-analysis. Considering the number of studies in Academic Search Complete, the abstract of every study that was considered “possible” was immediately reviewed to determine eligibility. The ProQuest Search produced 1059 results. From review of the title and descriptions, 31 of these studies were marked as “possible” and after review of the abstracts, 15 of these were considered “likely” to be included in the study. PsycInfo yielded 186 results of which two were considered possible based on their titles and descriptions. Of those, one was marked as “likely” for inclusion.

In isolating literature reviews, four such articles were found in the initial database search. Reviewing the three database results for title keywords “review”, “empirical”, “cycle of abuse” and “abuse-abuser” produced one result and isolating the sub-groups “empirical studies” and “literature reviews” produced no further relevant articles. From the four literature reviews, 30 articles were marked as “possible” for inclusion based on titles and descriptions and five of those were “likely” for inclusion. Reviewing the reference lists of all articles marked as “likely” in the database searches produced a total of 409 studies, of which 30 were marked as “likely” for inclusion and added to the results from the database and literature review searches. Finally, a

citation index for Jespersen et al. (2009) was generated in order to capture any studies that referenced the article since publication. Web of Science produced 117 articles and Google Scholar produced 294 articles. From these, 21 articles from Web of Science and 10 articles from Google Scholar were considered “likely” for inclusion.

In total, from the databases using the above specified search terms, reviewing the reference lists of all literature reviews and articles marked as “likely” for inclusion, a review of the citation index for the original article (Jespersen et al., 2009) and once duplicates had been eliminated, 46 articles were considered “likely” for inclusion. These 46 articles were reviewed and judged for their eligibility based on the four original inclusion criteria: 1) studies that compare the abuse histories of sexual offenders to non-sexual offenders or studies that compared the abuse histories of different types of offenders reporting quantitative prevalence data 2) studies only included data on adults (defined as 18 years or older) 3) studies that included data sexual abuse 4) studies done between 2006 and 2017 in English language publications. From these 46 articles, 14 met the inclusion criteria and are summarized below in Table 8.

Meta-Analysis Results

Table 7 describes 14 studies that compared individuals who sexually offend to non-sexual offenders or compared various sub-types of offenders. The primary area of investigation was comparing the probability of abuse histories between sexual offenders and non-sexual offenders. However, some studies included in the meta-analysis allowed for comparisons between different sub-types of offending behaviour (e.g. offenses against children vs. offenses against adults) or different sub-types of offenders (e.g. male offenders vs. female offenders). Table 7 provides similar information as that found in Jespersen et al. (2009) for each study in the analysis

including the groups under investigation, the odds ratios of abuse confidence intervals as well as the rates of abuse and size of the sample.

The odds ratios are calculated using presence of either sexual offending or the unique offending sub-type (e.g. high risk, victims under 14) as the “treatment group”. Therefore, the odds ratios describe the probability of abuse being present in a sample who: sexually offends (as compared to non-sexual offenders), is high risk (as compared to lower risk offenders), engages in serial offending (as compared to single offenses), consists of female offenders (as compared to male), is an individual with an intellectual disability (as compared to neuro-typical).

Each of the six studies that compare sex offenders and non-sex offenders reported greater odds of being sexually abused for individuals who committed sexual offenses. Odds ratios were run on each of these studies and ranged from 1.40 to 11.1. Despite the wide variability, each study indicated an increased likelihood of having a history of sexual abuse for sex offenders than non-sex offenders with a combined odds ratio of 6.91 with a 95% confidence interval of 5.63 to 8.48. It should be noted that measures such as odds ratios can be biased and inflated when studies have small samples or lack participants; this is known as the “sparse data bias” (Greenland, Mansournia & Altman, 2016). This bias can be further inflated when pooling multiple studies with low sample sizes, such as individuals with ID or individuals who engage in sexually offending behaviour (Nemes, Jonasson, Genell and Steineck, 2017). As a result the odds ratios presented in this study should be interpreted with caution.

The remainder of the studies compared the abuse histories between other groups of offenders. Coke and Holmes (2009) and Reynolds (2008) both showed increased odds of becoming a high-risk offender rather than low-risk offender when exposed to abuse with odds ratios of 1.34 and 1.94 with a 95% confidence interval of 0.50-3.54 and 0.97-3.88 respectively.

Baltieri & Andrade (2008) found offenders with multiple victims were more likely to have been

Table 8 *Summary of Studies*

Author	Study	Variable	Prevalence of abuse in sample	n	Odds ratio [95% CI]
Alanko, K., Schmidt, A. F., Neutze, J., Bergen, E., Santtila, P., & Osterheider, M. (2017)	Male Sexual Interest in and Offending Against Children: The Abused-Abuser Hypothesis	Sexual Offenders and non-offenders	Offender 30% (102) n=343 Non-Offender 4.2% (369) n=8812 Age=over 21	9155	9.68 [7.51 to 12.48]
Baltieri, D. A., & Andrade, A. G. D. (2008).	Comparing serial and nonserial sexual offenders: alcohol and street drug consumption, impulsiveness and history of sexual abuse	Serial offenders and non-serial offenders	More than one victim (total) 20% (10) n=49 1 victim 3.36% (5) n=149	198	7.38 [2.38 to 22.87]
Cale, J., Leclerc, B., & Smallbone, S. (2014).	The sexual lives of sexual offenders: the link between childhood sexual victimization and non-criminal sexual lifestyles between types of offenders	Different victim types Ages of victims	Single victim type 46.5% (220) n=473 Varied offender 52.2% (36) n=69 Age=18-78 Adult female victims 33.3% (52) n=156 Child and adolescent victims 47% (149) n=317	542 473	1.12 [0.73 to 1.73] 2.25 [1.51-3.36]
Connolly, M., & Woollens, R. (2008)	Childhood Sexual Experience and Adult Offending: An Exploratory Comparison of Three Criminal Groups	Male sex offenders and male non-sex offenders	Sexual offender 55% (37) n=67 Non-sexual offender 28% (16) n=58	125	3.24 [1.53 to 6.86]
Christopher K., Lutz-Zois C. J. & Reinhardt A. R. (2007)	Female sexual-offenders: Personality pathology as a mediator of the relationship between childhood sexual abuse history and sexual abuse perpetration against others	Female sex offenders and female non-sex offenders	Female SO 16.4% (10) n=61 age=37.2 Female non-SO 12.2% (10) n=81 age=25.2	142	1.39 [0.54 to 3.59]

Coxe, R., & Holmes, W. (2009).	A Comparative Study of Two Groups of Sex Offenders Identified as High and Low Risk on the Static-99	Risk	High risk 24% (6) n=24 age=40.5 Low risk 20% (52) n=261 age=25.9	285	1.34 [0.51 to 3.54]
Dudeck, M., Spitzer, C., Stopsack, M., Freyberger, H. J., & Barnow, S. (2007)	Forensic inpatient male sexual offenders: The impact of personality disorder and childhood sexual abuse	Sex offenders and non-sex offenders	Sexual offenders 26.3% (5) n=19 Non-sexual offenders 3.1% (1) n=32 Age=18-55	51	11.07 [1.18 to 103.78]
Elloyan, T. (2016)	The Influence of Childhood Sexual Abuse on Adult Sexual Offense Victim Selection	Victims under 14 or over 14	Victim under 14 41% (30) n=73 Victim over 14 54% (7) n=13 Average age=44	86	0.60 [0.18 to 1.96]
Hayes, S. (2009)	The Relationship Between Childhood Abuse, Psychological Symptoms and Subsequent Sex Offending	Sex offenders with intellectual disability and those without an intellectual disability	ID: Sexual 30%(6) n=20 Non-ID: Sexual 20% (4) n=20 Age=18-52	40	1.71 [0.40 to 7.34]
Leach, C., Stewart, A., & Smallbone, S. (2016)	Testing the sexually abused-sexual abuser hypothesis: A prospective longitudinal birth cohort study	Sexual offenders and non-sex offenders	Sex offenders: 28% (8) n=28 Other offenders: 15.4% (279) n=1813	1841	2.20 [0.96 to 5.04]
Levenson, J. S., & Grady, M. D. (2016)	The influence of childhood trauma on sexual violence and sexual deviance in adulthood	Male sex offenders and female sex offenders	Male: 38% (263) n=692 Female: 50% (24) n=48 Age=over 18	740	0.61 [0.34 to 1.10]
Lindsay, W., Steptoe, L., & Haut, F. (2012)	The sexual and physical abuse histories of offenders with ID	Male sex offenders with ID and male non-sex offenders with	Male offenders 32.6% (51) n=156 Male Non-Sexual offenders 17.7% (22) n=126	282	2.30 [1.30 to 4.06]

ID

Newman, J. E., Wanklyn, S. G., Ward, A. K., Cormier, N. S., & Day, D. M. (2015)	Developmental risk factors distinguish violent sexual offending, violent non-sexual offending and versatile violent offending in adulthood	Violent non- sex offender Violent sex offender	Sexual 10% (4) n=40 Nonsexual 6.6% (14) n=219	259	1.63 [0.51 to 5.2]
Reynolds, B. (2008)	The effects of childhood sexual abuse on sexual offenders' victim choice	Risk	High risk 63% (27) n=43 Not high risk 46% (73) n=157	210	1.94 [0.97 to 3.88]

abused with an odds ratio of 7.38 and a 95% confidence interval of 2.38-22.89 while Hayes (2009) found offenders with an intellectual disability were more likely to be abused, with an odds ratio of 1.71 and a 95% confidence interval of 0.40-7.34. Levenson & Grady (2016) found that male offenders had a lower likelihood to be abused with an odds ratio of 0.61 and 95% confidence ratio of 0.34-1.10. Elloyan (2016) found offenders with victims under 14 years of age were less likely to have been abused than offenders with victims over 14, with an odds ratio of 0.60 and a confidence interval of 0.18-1.96 while Cale et al. (2014) found offenders with child and adolescent victims were more likely to have been abuse than those that offend against adult women, with an odds ratio of 2.2.5 and a confidence interval of 1.51-3.36.

Discussion

In Phase 2, a meta-analysis was conducted on all the relevant literature on the cycle of abuse as it pertains to sexual offenders since Jespersen et al. (2009). To do so, the search procedure from Jespersen et al. (2009) was duplicated, including database searches, reference lists and added a citation index review of the original article to capture any research from 2006-

2017 that met the original criteria. This meta-analysis of the literature provided further information regarding the relationship between experiencing sexual abuse and later offending. As well, this systematic review synthesized evidence on offender and victim characteristics correlated with suffering early sexual abuse.

Jespersen et al. (2009) found an association between prior history and later behaviour as individuals who sexually offended had significantly higher rates of sexual abuse than non-sexual offenders with an odds ratio of 3.36, and a 95% confidence interval of 2.34–4.82. The authors were also able to make group comparisons between offender sub-types. Based on five studies, the authors made comparisons between offenders who targeted adults and those that targeted children and found that offenders who targeted adults showed an increased likelihood of sexual abuse, with an odds ratio of 1.13 and a confidence interval of 0.78-1.64.

The meta-analysis conducted in Phase 2 included 14 studies compared to 24 studies in Jespersen et al. (2009). As with the original study, the literature from the meta-analysis lent further credit to the cycle of abuse and numerous studies showed a correlation between abuse and various sub-types of offending behaviour. Both Christopher et al. (2007) and Newman et al. (2009) showed increased prevalence of sexual abuse amongst sexual offenders compared to a control group of non-sexual offenders. Dudeck et al. (2007) found that sexual offenders had abuse rates of 26.3%, as opposed to 3.1% for offenders who committed non-sexual crimes and Lindsay et al. (2012) found both male (32.6%) and female (59.3%) sexual offenders had notably higher rates of sexual abuse than the male, non-sexual offender control group (17.7%). Based on six studies in the meta-analysis that compared sex offenders to non-sex offenders, individuals who engage in sexually offending behaviour are up to eleven times more likely to have a history of abuse (Dudeck et al., 2007) with a combined odds ratio of 6.91. This shows an increased

probability of sexual abuse histories for individuals who engage in sexual offenses, higher than that found in the original analysis (3.36).

Two studies included in Phase 2 directly compared abuse histories based on victim age, those considered child molesters (under 14) and non-child molesters (Elloyan, 2016); this study found a decreased likelihood of sexual abuse in the child molester group with an odds ratio of 0.60. This is in contrast to Jespersen et al. (2009), who found five studies comparing individuals who offended against children and those that offended against adults, finding an increased likelihood of sexual abuse for individuals who engaged in offenses against children with an odds ratio of 1.13.

Phase 2 also contained studies that allowed specific sub-types to be compared. Levenson and Grady (2012) found higher rates of sexual abuse amongst female offenders, as they were 39% more likely to have histories of abuse. Offenders with ID are abused at higher rates than neurotypical offenders and were 70% more likely to have an abuse history (Hayes, 2009). Presence of ID may be a mitigating factor that contributes to the onset of later offending for a number of reasons. This population may be even more affected by sexual abuse due to lack of education and opportunity for consenting sexual activity (Hingsburger et al., 2013), leading to misinterpretations of their own abuse, and engaging in more inappropriate and illegal expressions. These results should be interpreted with caution; individuals with ID and women are abused at higher rates in general and these findings may reflect overall abuse rates rather than offender populations specifically.

Phase 2 also included studies in which offenders with specific victim groups were correlated with increased abuse histories. Baltieri & Andrade (2008) found a correlation between abuse and numbers of victims, as individuals with multiple victims were just over 7 times more

likely to have been abused. As well, individuals that were abused were 34-94% more likely to become high risk offenders (Coke & Holmes, 2009; Reynolds, 2008) while individuals who targeted victims under 14 years of age were 40% less likely to have histories of abuse (Elloyan, 2016). Individuals who engaged in more varied offending behaviours, such as both contact and non-contact offenses, had increased levels of prior abuse (Alanko et al., 2017). Offenders with child and adolescent victims as well as rapists had higher levels of previous sexual abuse (Cale et al., 2014, Connolly et al., 2008).

The purpose of both the original Jespersen et al. (2009) and Phase 2 was to explore the potential relationship between prior sexual abuse and later sexual offending. In their analysis of 24 studies, Jespersen et al. (2009) found a relationship between earlier sexual abuse and later sexual offending behaviour as compared to non-sexual offenders. As well, they found five studies that indicated an increased prevalence of abuse in those that targeted adults as opposed to children. Phase 2 analyzed 14 studies conducted since Jespersen et al. (2009) and also found an increased prevalence of sexual abuse histories in individuals who have sexually offended as compared to non-sexual offenders.

Though Jespersen et al. (2009) found an increase rate of sexual abuse in those that targeted adult victims rather than children over five studies, there were conflicting results from the studies done since. Elloyan (2016) addressed the age of victims and found those that individuals who offended against children were less likely to have a history of sexual abuse while Cale et al. (2014) found those that offended against children were more likely to have prior sexual abuse.

Phase 2 also found evidence of a number of other relationships including an increase likelihood of abuse in individuals who offend who have an intellectual disability, target multiple

victims and target varied victims. As well, females who engaged in sexual offending behaviour were more likely to have a history of sexual abuse as compared to male offenders. Unfortunately, the majority of comparisons were only captured in a single study (e.g., high vs. low risk, single vs. serial victims), which significantly limits any statements that can be made on their findings. This information, while valuable, does not allow any conclusions to be made but instead should direct future research. The area with the most literature was the comparison between sexual offenders and non-sexual offenders; the Phase 2 meta-analysis captured six studies and found a similar correlation between sexual offender and prior sexual abuse as Jespersen et al. (2009), with an odds ratio of 6.91. This shows an increased probability of a history of sexual abuse in individuals who committed sexual offenses and provides additional support for the cycle of abuse theory.

Limitations

Jespersen et al. (2009) noted limitations in their meta-analysis. These limitations will be listed, and then compared against the present study. The original authors noted a lack of non-sexual abuse in the studies in the analysis. While Phase 2 shared this limitation, Phase 1 addressed multiple forms of abuse including neglect and physical abuse. Jespersen et al. (2009) also noted different definitions of abuse depending on the study; this was a problem consistent in this meta-analysis, as many studies did not provide a definition of abuse at all. Jespersen et al. (2009) also stated a lack of female offenders captured in their meta-analysis and only one study (Green & Kaplan, 1994) included them. Only two studies in analyzed in Phase 2 (Christopher et al., 2007 and Lindsay et al., 2012) included female offenders. The statistics showed that offenders are overwhelmingly male; this may reflect genuine prevalence, reporting bias or non-random sampling.

Fidelity of information was also noted as a potential concern, as confirmation of abuse history was most often done by self-report or file review. Both Phase 2 and Jespersen et al. (2009) suffered from that limitation. This is notoriously difficult to control for and in the current study there was no independent verification of abuse; all histories were gathered from notes or reports that featured a self-disclosure or investigation based on self-disclosure. Caution therefore should be used in such interpretations as there could be an inherent motivation to disclose a history of abuse during treatment as it may be perceived as a way to diffuse blame for crimes and shift culpability.

A lack of reporting on age of offending was noted as a limitation in the original meta-analysis. This was also true in the current replication, as five of the fourteen studies (36%) did not provide an average age or age range with the participant information. Age of victims was also inconsistently provided in the original sample, with some studies including teens in the adult victim category. The research included in the current meta-analysis differentiated between subgroups of victims based on age (Alanko et al., 2014, Cale et al., 2004, Connolly et al., 2008) or did not provide specific information on the ages or categories of victims. In the current study, we identified individuals who offended against adults or children, using the cut off age of 16.

Although, as noted in the first study of this thesis, as a group offenders who have an intellectual disability have been found to be more likely to have a history of abuse compared to the rates found in nondisabled offenders. However, not all individuals who have been abused will go on to abuse others. Despite this, no studies have explored the protective factors in individuals who do not go on to engage in offending nor did any studies look at the mediating factors that contribute to the onset of offending behaviour. As noted in Leach & Smallbone (2015), the majority of individuals who are abused do not go on to offend. There are clearly

mitigating factors that contribute to the onset or absence of later offending behaviour with individuals who have been abused. These may include protective factors, those contributory influences and characteristics that make an individual less likely to engage in offending behaviour. By not including a non-offender group, comparisons between those who go on to offend and those who do not are impossible and prevent such protective factors from being isolated and analyzed.

Strengths

The strength of this study lies in its ability to contribute to an area that is dramatically under-researched. The dearth of literature on individuals with ID who sexually offend is exemplified in the meta-analysis. The original meta-analysis found a total of 24 studies addressing the cycle of abuse, of which none addressed this population specifically. In Phase 2, only two studies were found in the literature search that addressed abuse in this population. This represents a significant gap in the research and given the absence of studies in this area, a sample of 37 individuals in this population, with relevant information focusing on abuse, is extremely relevant and valuable.

This study was able to add to the understanding of risk and synthesize the literature in identifying many of the factors that may contribute to that risk. As discussed above in the literature review, individuals with ID have higher rates of both criminal behaviour and sexual re-offense. Offenders in this population are also more likely to suffer early sexual abuse and the meta-analysis showed that such experiences are correlated with elevated levels of risk of offending, more victims and a wider diversity of crimes. This sample represents a group of offenders that is at significant risk for both initial offending behaviour but also increased likelihood to re-offend, with a larger number of victims and more variety of sexual crimes.

Contributions to the literature on such a group can lead to a better understanding of not only early risk factors but the nature and types of crimes that may be committed during offenses.

Conclusion

A meta-analysis was conducted to determine what current literature exists on the cycle of abuse theory as it relates to sexually offending behaviour. This meta-analysis was a replication and update of Jespersen et al. (2009) and synthesized all literature done since that time. The studies included in the meta-analysis made different comparison between sexual offenders and non-sexual offenders as well as between offending sub-types (e.g. female offenders vs. male offenders).

The studies comparing sexual offenders to non-sexual offenders reported an increased probability of sexual abuse histories for individuals who engage in sexual offenses. The odds ratios for this finding varied, with a combined odds ratio for the six studies of 6.91. There may be moderating variables, such as gender and presence of ID, that influence the impact of the cycle of abuse unfortunately, given the dearth of information on each, no conclusive statements can be made regarding the cycle of abuse and its relationship to the various subtypes.

This meta-analysis lent further support for the cycle of abuse in regards to sexually offending behaviour; studies report that samples of individuals who engage in sexual offending were more likely to have histories of sexual abuse than non-sexual offending samples. This meta-analysis also highlights the need for more literature, specifically on the moderating variables (e.g. gender) that may influence the impact of prior sexual abuse on later offending.

Overall Conclusion

This study sought to add to the existing literature on individuals with an intellectual disability who engage in sexually offending behaviour and presents the findings from a study

composed of two phases: a retrospective file review and a subsequent meta-analysis on literature relating to the relationship between prior sexual abuse and later sexual offending behaviour. The first phase saw a total of 37 files reviewed and coded based on a variety of domains, including abuse and offending behaviour. Research questions were asked regarding the abuse histories, the relationship between functioning level and offense type and the rate of criminal charges present in the sample. The file review showed no significant difference in the rates of sexual abuse as compared to prior research or in the rate of charges as compared to individuals who have offended in the general population. Unfortunately, there was insufficient data regarding level of functioning and type of offense to make any statements.

The second phase was a meta-analysis of articles reporting on the sexual abuse histories of individuals who exhibit sexual offending behaviour since Jespersen et al. (2009). The meta-analysis provided additional support for the cycle of abuse, finding significantly higher rates of abuse with individuals who engaged in sexual offending behaviour as compared to those that engaged in non-sexual offending behaviour. This trend was found in six of the studies in the meta-analysis, while the remainder of studies made other comparisons of sexual abuse in offenders who were female, those that had an intellectual disability and individuals that targeted multiple or diverse victims.

Overall, individuals who engage in sexual offending behaviour showed higher rates of prior abuse than both the general population and samples of non-sexual offenders. From the file review, no statements regarding correlation of abuse and offending can be made due to the lack of control group. However, the rate of sexual abuse in this sample was higher than the general population and comparable to that previously reported by Lindsay (2011) for a similar population of individuals with ID who offended and to the ID population in general

(Chamberlain, Rauh, McGrath, & Burket, 1984; McCarthy & Thompson 1997; Reiter, Bryen, & Shachar, 2007). The meta-analysis included numerous studies that found increased rates of sexual abuse among offenders that engaged in sexual offenses as compared to those that engaged in non-sexual offenses. However the rates of abuses in offending samples, including those reported in Phase 1, are similar to that of the overall population of individuals with ID. Further research is needed to determine whether prior abuse occurs more frequently with the presence of both ID and offending behaviour than either individually, and whether there are additional moderating variables. From the meta-analysis, increased rates of sexual abuse were found among individuals who targeted multiple victims or diverse victim types (Baltieri et al., 2008 and Cale et al., 2014), while other studies found higher rates of abuse among female offenders (Levenson & Grady, 2016) and individuals with ID who engaged in sexually offending behaviour (Hayes, 2009). Given the limited number of studies, no conclusions can be made based on these findings; however, research analyzing the potential relationship between abuse and offending among these groups would help guide predictive measures (i.e. risk assessments) and preventative strategies (e.g. education). Future studies should also determine whether gender and ID serve as moderating factors for the cycle of abuse and the potential impact prior abuse has on later victim preference and topography.

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Appendix A

Demographic Information

Referral Issues:
(as per referral)

Clinic:
(note files that are referred to
both clinics but use
sexuality only for data)

Behaviour

Sexuality

Age:
(age at activation)

(format: 15-month-year)

Gender:

Male

Female

Functional Level
(DSM 4-TR)

Borderline

Mild

Moderate

Severe

Profound

Charges Laid?
(number of charges)

Yes

No

Sexual Behaviour

Contact (if more than one, put number of documented incidents)	Sexual assault (child) (forced sexual contact, sexual contact with someone unable to provide consent, someone coerced or bribed)	Sexual assault (adult) (forced sexual contact, sexual contact with someone unable to provide consent, someone coerced or bribed)	Inappropriate touch (any uninvited touch to the genitals, breast or buttocks)		
	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____		
Non Contact (if more than one, put number of documented incidents)	Invitation to sexual touch	Child pornography	Exhibitionism	Voyeurism	Public Masturbation
	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____

Age during behaviour (s): _____
 (age of onset of behaviour targeted for intervention)

Target Age(s): _____
 (age of victim for first incidence of targeted behaviour)

Target Gender(s): (if more than one, put number)
 Male _____ Female _____

If contact, target relation(s): (if more than one, put number)
 Parents _____ Sibling _____ Other relative: _____ Support staff _____
 Housemate _____ Stranger _____ Other (specify): _____ Unknown _____

Duration of behaviour (s): _____
 (duration of offending behaviour targeted for intervention)

Patterns: (from behaviour targeted for intervention)
 Repeated Events Duration: _____ Single Event: Duration: _____

Evidence: (if more than one, put number)
 Police Report _____ Incident Report _____ Other report _____ Other: _____

Abuse History**(Historical. Document any occasions found in the file)****Sexual Abuse**

Yes

No

Sexual Assault**(forced sexual contact,
Sexual contact when
unable to provide consent,
coerced or bribed)****Sexual Touch****(any uninvited touch
to the genitals,
breast or genitals)****Exposure to pornography/
Sexual Acts****(exposure to pornography or
sexual acts)****(if more than one,
put number)** _____ _____ _____**Other Abuse**

Yes

No

Physical Abuse**(Being struck in any area
of the body, being thrown,
pushed or forced against an
object, or being struck
excessively on the buttocks)****Verbal Abuse****(Subject to insults
or threats)****Neglect****(Absence of
necessary or
basic living standards
either tangible or
emotional)****Other:****(if more than one,
put number)** _____ _____ _____ _____**Patterns:****Repeated Events Duration:**_____**Single Event:****Unknown:**_____