

The relationship between exposure to pornography, victimization history, attachment to parents,  
and the sexual offence characteristics of adolescents who sexually offend

by

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## **Abstract**

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This study was focused on exploring the relationship between victimization history, attachment to parents, pornography exposure/use, and characteristics of the sexual offences committed by male adolescents. It was hypothesized that, the poorer the attachment to parents, the greater number of abuses experienced, and the more exposure to pornography, the more likely an adolescent would be to have had more victims, have offended against more age groups, have both male and female victims, have committed penetration in his sexual offences, and have been forceful or violent in his sexual offences. The study involved secondary analysis of a large data set that was based on prior administration of an extensive survey which also included a number of psychological measures and questionnaires. A total of 308 male participants ranging in age from 13 to 20 at the time of completing the survey were included in this study. Participants were 12-17 years of age at the time of their sexual offending. A series of regressions were used to examine if attachment to parents, history of abuse/neglect, and pornography use could predict the number of victims, age group of victims, gender of victims, sexual intrusiveness, and level of force in the sexual offences that had been committed by the participants. Predictor variables that emerged as important in this study were the duration of the sexual offending, having experienced three or more types of abuse, and exposure to live sex.

In general, it was suggested that treatment efforts should focus on intervening promptly and reducing the duration of an adolescent's sexual offending and that intervention for all types of abuse be prioritized. Additionally, it was recommended that future research seek to identify characteristics that might predispose certain victimized individuals to develop sexual offending behaviours in the future. In general, it was noted that further explorations are needed regarding applicable theoretical approaches, as well as the various factors, and interactions among factors, that contribute to the characteristics of sexual offences committed by male adolescents.

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## **CHAPTER 1**

### **Introduction**

The purpose of this study was to examine the relationship between pornography exposure and sexual offence characteristics of adolescents who have sexually offended. As direct links between pornography use and sexual offending have not been demonstrated by previous researchers (Burton et al., 2011), the overarching question of interest in this study was if pornography use/exposure, in combination with attachment to parents and a history of abuse/neglect history, is related to adolescent sexual offending. Attachment Theory, Social Learning/Cognitive Theory, and Media Cultivation Theory were proposed as theoretical frameworks through which the potential relationship between victimization history, attachment to parents, and sexual offence characteristics could be explained. Although significant support for each of these theories was not achieved on the basis of the findings, clinical implications and suggestions for future research did emerge. The results of the present study have implications for professional practice, future empirical investigations, and societal approaches to victimization during childhood or adolescence and adolescent sexual offending.

### **Overview of the Study: The State of Current Knowledge**

Considerable concern about the potential impact of exposure to sexually explicit media has long been expressed by parents, educators, policy makers, law enforcement officials, and clinicians. It is well known and accepted that most children and adolescents in Western countries have access to the Internet (Ferguson, 2013; Griffiths, 2000; Harris, 2011; Weber et al., 2012). For instance, in 2002, some 73% of children (ages 10-16) had Internet access at home (O'Connell, 2002), and by 2005, this had risen to 75% (Livingstone & Bober, 2005), with almost 92% of children having access to the Internet at school (Livingstone & Bober, 2005).

With the extensive access that most children and adolescents in Western countries have to the Internet (Griffiths, 2000), considerable access to large amounts of uncensored material, such as sexually explicit material (Cameron et al., 2005; Harris, 2011; Longo, 2004), also exists. It has been argued that the Internet is preferred over other types of media outlets (Rideout, Foehr, Roberts, & Brodie, 1999), and many experts postulate that parents are generally unaware of what their children are viewing or with whom they are communicating on the Internet (Cameron et al., 2005; Longo, 2004). Despite these concerns, there is little research in this area (Ferguson, 2013; Longo, Brown, & Orcutt, 2002; Sabina, Wolak, & Finkelhor, 2008).

Although there are controversial views surrounding the potential impact of pornography, many researchers believe that viewing pornography is not an emotionally or physiologically neutral experience (Gunter, 2002; Jensen, 2007; Zillmann & Bryant, 1998). Among adults, for example, empirical findings have linked viewing pornographic images and negative outcomes (i.e., increase in aggression and interpersonal violence), and this is particularly true for adults who are primed toward violent behaviour (Ferguson, 2013; Fisher et al., 2013; Malamuth, 2003; Malamuth, Addison, & Koss, 2000; Oddone-Paolucci, Genuis, & Violato, 1997).

To date, few researchers have explored the immediate and long-term consequences of pornography usage on an adolescent's developmental trajectory (i.e., morally, socially, and sexually), and less is known about the familial influences and dynamics involved in an adolescent's relationship with sexual media. The potential developmental impact of exposure to sexualized media cannot be ignored, however, and this impact may be particularly salient for adolescents with predispositions towards violence (sexual or otherwise). Studies suggest that adolescents who have documented sexual behaviour problems or have engaged in harmful sexual behaviours (i.e., sexual offences) are more likely than other adolescents to have a history of viewing pornographic images (Becker & Hunter, 1997; Wieckowski et al., 1998). Although a

direct relationship between pornography use and sexual offending may be overly simplistic, it is possible that adolescents who have viewed pornography and have conflictual or abusive individual and familial backgrounds (e.g., neglect/maltreatment/abuse, attachment loss or ruptures, poor parenting, etc.), might be at increased risk of engaging in sexually abusive behaviour.

In Canada, adolescents are responsible for between 30% to 40% of the sexual offences that are committed against children under the age of 12 (Statistics Canada, 2007). In a Canadian population survey conducted by the Badgley Committee on Sexual Offences Against Children, it was found that almost one third of suspected or known child sexual offenders were under the age of 21 (Badgley et al., 1984). Similarly, in a study of 60,991 victimized individuals in the United States (Snyder, 2000), it was reported that 23% of the sexual offenders were under the age of 18. Researchers examining the histories of adults who have sexually offended have indicated that approximately 50% of these individuals began sexually offending as adolescents (Becker & Abel, 1985). Researchers interested in adolescents who have sexually offended have focused on many issues such as describing sexual offence characteristics, exploring treatment outcomes, and identifying issues related to the risk of sexual reoffending.

Despite advances in research regarding adolescent sexual offending, information is scant regarding the relationship between pornography and sexual aggression/violence among youth, as well as how, and under what conditions, sexually explicit material might present a risk factor towards sexual violence in adolescence. Similarly, despite clinical experiences that suggest the existence of pornography use by adolescents who offend sexually, little information currently exists regarding the extent and impact of pornography use by this population. Of interest in the present study was the relationship between sexual offence characteristics and victimization

histories, attachment to parents, and prior pornography exposure/use of adolescents who have sexually offended.

The following research questions were of primary interest in this study:

(1) Do attachment to parents, history of abuse/neglect, and pornography use predict the number of victims against whom an adolescent has sexually offended?

(2) Do attachment to parents, history of abuse/neglect, and pornography use predict the age group of victim(s) against whom an adolescent has sexually offended?

(3) Do attachment to parents, history of abuse/neglect, and pornography use predict the gender of victim(s) against whom an adolescent has sexually offended?

(4) Do attachment to parents, history of abuse/neglect, and pornography use predict the sexual intrusiveness in adolescents' sexual offending?

(5) Do attachment to parents, history of abuse/neglect, and pornography use predict the level of force in adolescents' sexual offending?

## Organization of Study

The following is an overview of the content of the next 5 chapters of the study:

**Chapter two** provides a review of the literature regarding definitions of pornography, victimization histories of adolescents who have sexually offended, pornography use among adolescents, the impact of pornography, and the relationship between pornography and sexual offending.

**Chapter three** provides a description of the three theoretical perspectives that were used in conceptualizing the study: Attachment Theory, Social Learning/Cognitive Theory, and Media Cultivation Theory.

**Chapter four** describes the research design and methodology, including providing a description of the participants, procedure, measures used, and variables created.

**Chapter five** outlines the results of the study, inclusive of demographic information of the participants, descriptive analyses, and the analyses addressing the specific research questions.

**Chapter six** contains the discussion of the findings, inclusive of an overview of the theoretical explanations of the study, clinical implications of the study, limitations, and suggestions for future research.

## CHAPTER 2

### Literature Review

#### Defining Pornography

In the literature on sexual media, pornography is not easily defined. What is viewed as pornographic varies from one person to another, from culture to culture, and over time. The term “pornography” has been used in discussion and debate to refer broadly to material that is sexually explicit or, more specifically, to sexually explicit material designed primarily to produce sexual arousal in viewers, or to sexually explicit material that subordinates women or is harmful to women and children, or with some other definition in mind (Fisher & Barak, 1989; Jensen et. al., 1998; Marshall & Barrett, 1990).

The lack of consensus over the definition also contributes to society’s difficulty in determining the prevalence of and harm caused by pornography (Marshall & Barrett, 1990). Much of the discourse surrounding adult-based sexual imagery is primarily divided into two broader categories, either as “violent or non-violent” pornography. However, defining or categorizing pornography as either “violent” or “less-violent” is riddled with divergent theoretical, political, and cultural/societal influences and positions (Jensen et. al., 1998). Consequently, no consistent definition seems to emerge that begins to separate sexual imagery that is “acceptable” from that which is offensive or dehumanizing, and with the advent of the Internet, the landscape of what is available (or acceptable) with respect to sexual content, level of violence, and perceived perversion is left up to one’s imagination.

Indeed, some academics are of the belief that a large portion of sexual imagery conveys, on some level, violence against women. Typically, this violence is either overtly played-out through physical and verbal aggression/violence or demonstrated more covertly (e.g., through the

general portrayal of women as sexual objects in sexual imagery); therefore, it is argued that such material perpetuates images of women as sexual objects and, thus, can victimize women directly and indirectly (Hunt, 1993; Jensen et. al., 1998; Marshall & Barrett, 1990). Interestingly, the term pornography is derived from the Greek word “porne,” which can be translated as “female captives” or “prostitutes.” Porneia is often translated as “fornication,” “whoredom,” or “sexual immorality” (Jensen et al., 1998).

Certainly, there seems to be agreement in much of the discourse pertaining to pornography that a unified definition of “pornography” would be of great use; at the very least, it would help create and interpret definitions for public policies, and perhaps help bring clarity and focus to the moral debate surrounding the production and use of pornographic material. However, for the purposes of this study, Hunt’s (1993) definition of pornography as the “explicit depiction of sexual organs and sexual practices with the aim of arousing sexual feelings” (p. 173) was adopted.

### Victimization Histories of Adolescents Who Have Sexually Offended

A history of victimization, particularly sexual abuse, is not a necessary precursor to subsequent sexual offending; however, researchers have repeatedly demonstrated higher rates of victimization, than indicated in the general population, for adolescents who have sexually offended (Cooper, Murphy, & Haynes, 1996; Way, 2002). This finding has prompted a number of researchers to suggest that prior victimization may be significant in the development of sexual offending behaviour (Ford & Linney, 1995; Worling, 1995b).

Researchers report that high levels of abuse and neglect are common among adolescents who have sexually offended (Awad, Saunders, & Levene, 1984; Becker & Hunter, 1997;

Borduin, Henggeler, Blaske, & Stein, 1990; Burton & Hedgepeth, 2002; Center for Sex Offender Management (CSOM), 1999; Cooper et al., 1996; Seto & Lalumière, 2010). In a meta-analysis of sexually reactive children, Burton and Schatz (2003) found that 38% of 7,261 youth (from 30 studies) had been physically abused, 44% of 522 youth (from 4 studies) had been emotionally abused, and 32% of 2,879 youth (from 10 studies) had been neglected. Similar findings have been reported by other researchers as well. For example, in their study of 1,600 children and youth (ages 5-21) who sexually offended/engaged in sexualized behaviours, Ryan, Miyoshi, Metzner, Krugman, and Fryer (1996) reported that 39.1% had experienced sexual abuse, 41.8% had experienced physical abuse, 25.9% had experienced neglect, and 63.4% had witnessed family violence. In their sample of 96 children and adolescents (ages 9-20) who sexually offended/engaged in sexualized behaviours, Prentky, Harris, Frizzell, and Righthand (2000) found that 41% reported having been sexually abused, 54% reported having been physically abused, and 55% reported having experienced psychological or emotional abuse.

Although the impact of having experienced multiple types of abuse has not received significant attention with respect to adolescent sexual offending (Way, 2002), this may be a salient issue with respect to the characteristics of the sexual offences committed by adolescents. For example, Costin (2004) found that, in comparison to adolescents who experienced no prior victimization or only one type of prior victimization, adolescents who experienced two or more types of prior victimization were more likely to commit penetration, inclusive of anal or vaginal penetration, and to demonstrate physical force in their sexual offences.



## Pornography Use Among Adolescents

In Canada and the United States, pornography is a multi-billion dollar industry (Kroft, 2003) that has created much controversy and debate. Research regarding pornography use among adults is longer-standing; however, research regarding pornography exposure among adolescents really emerged in the past 10 years. This emergence is likely a result of the considerable amount of pornographic material now available to adolescents on the Internet, and the widening accessibility of pornography through such media devices as computers, mobile phones, interactive gaming systems, and personal digital assistants.

The rate of exposure to online pornography among adolescent users of the Internet is considered substantial and significant (Freeman-Longo, 2000; Longo et al., 2002; Sabina et al., 2008), and it has been suggested that up to 50% of children have seen pornography while online (Livingstone & Bober, 2005). Mitchell, Finkelhor, and Wolak (2003) reported that 25% of their national sample of Internet-using youth (ages 10-17) had experienced unwanted exposure to pornography during the previous year. From a survey completed by 563 college students, Sabina and colleagues (2008) reported that 93% of males and 62% of females were exposed to online pornography sometime during their adolescent years (before the age of 18 years), with the greatest level of exposure generally occurring between 14 to 17 years of age (combining males and females). Although exposure prior to age 13 was generally uncommon for both males and females, males were more likely to have been exposed at an earlier age. As well, males reported having viewed more pornographic images and more extreme/intrusive images (e.g., rape, child pornography), and females reported more involuntary exposure. Additionally, Sabina and colleagues found that many of the respondents had viewed paraphilic and criminal sexual activity, including sex with animals (31.8% of males, 17.7% of females), child pornography

(15.1% of males, 8.9% of females), bondage (38.6% of males, 22.6% of females), and sexual violence or rape (17.9% of males, 10.2% of females), at least once before the age of 18.

Although exposure to Internet pornography is often accidental or unintentional, research has demonstrated that many adolescents actively seek out sexually explicit material on the Internet (Cameron et al., 2005; Longo, 2004), with more intentional viewing reported by males (Wolak, Mitchell, & Finkelhor, 2007). Peter and Valkenburg (2006) found that more sexually explicit material was sought by adolescents with a high degree of sexual interest and who were more dissatisfied at home. This finding raises questions regarding the relationship between the familial environment or the parent-adolescent bond, and pornography consumption by adolescents.

### The Impact of Pornography

Social researchers have suggested that viewing pornography contributes to a range of negative impacts from contributing to changes in attitudes (Check, 2002; Russell, 1993; Russell & Trocki, 1993; Zillmann, 1989) to actually causing violence against women (Donnerstein, 1984; Dworkin, 1988; Russell, 1993; Russell & Trocki, 1993; Zillmann & Weaver, 1989). Weaver (1987) raises the concern that one could be desensitized to the distorted content typically portrayed in pornography to the point of adopting and/or acting out these depictions in reality.

Research regarding the impact of pornography exposure on adolescents is limited (Fitton, Ahmedani, Harold, & Shifflet, 2013; Stulhofer, Busko, & Schmidt, 2012), but emerging. In 2000, The Crimes Against Children Research Center (CACRC) at the University of New Hampshire conducted a Youth Internet Safety Survey, by telephone, with 1,500 children and adolescents who were between 10 and 17 years of age. Ybarra and Mitchell (2005) reported on

the data from this study and, without making any claims concerning directional causality, they found that adolescents who reported intentional exposure to pornography on the Internet also reported more delinquent behaviour overall. In addition, they found that adolescents who intentionally viewed pornography (online or offline) reported higher levels of depression and lower levels of emotional bonding with their caregivers (attachment ruptures).

A number of researchers have reported a relationship between exposure to sexual media (including pornography and other forms such as television shows) and early engagement in sexual activity among teenage populations (Brown, DiClemente, & Peck, 1992; Brown, Greenberg & Buerkel-Rothfuss, 1993; Brown & Newcomer, 1991; Collins et al., 2004; Gunter, 2002; Kim et al., 2006; Struthers, 2009; Ward, 2003). These researchers raise the concern of the more subtle consequences of viewing pornography among adolescents, such as the lessons regarding sexuality and sexual relationships, sexual values, scripting regarding gender roles and stereotypes, and how, particularly among adolescent boys, masculinity is defined or scripted through pornographic images. Struthers (2009) notes that pornography scripts run the risk of encouraging adolescents toward the direction of engaging in casual sexual behaviours and taking many partners (when they want to), with little to no emphasis on using protection. Additionally, Struthers suggested that, for those youthful viewers with few (if any) counter examples of real life healthy relationships, the risks are potentially greater in this regard.

### Pornography and Sexual Offending

Several meta-analyses have been conducted using research on adults with the intent of exploring the relationship between pornography use and sexual deviancy or sexual offending; however, there is little consensus among the meta-analytic studies. Seto, Maric, and Barbaree

(2001) undertook an extensive meta-analysis aimed at ascertaining the relationship between pornography use and an increased likelihood of committing sexual offences (with adult offenders). They concluded that pornography exposure has no direct causal link to an increased likelihood of committing a sexual offence; for those individuals already predisposed to commit a sexual offence, however, the effects of pornography are greater.

In the literature focused on children and adolescents, researchers have raised the concern that exposure to media with an emphasis on sexual themes (i.e., pornography) may contribute to the early onset of sexualized behaviours among children and adolescents (Greenberg, Brown, & Buerkel-Rothfuss, 1993). Freeman-Longo (2000) postulated that children and adolescents who use sexually explicit materials online are at potential risk to develop sexual addiction and sexually compulsive behaviours. At a minimum, Freeman-Longo concluded that children and adolescents viewing this material online are exposed to “incorrect information about human sexual behaviour and age inappropriate sexual materials” (p. 89).

Although research and clinical information regarding pornography use by adolescents who sexually offend is limited, there is some research evidence to date that suggests that the extent and content of pornography viewed differs among adolescents who offended sexually versus nonsexually. Ford and Linney (1995) found that sexually offending adolescents reported more exposure to pornographic material compared to nonsexually offending adolescents, and Leguizamo (2000) found that, in comparison to nonsexually offending adolescents, adolescents who committed sexual offences were more likely to have been exposed to hard-core explicit pornography before the age of 10. In their meta-analysis, Seto and Lalumière (2010) reported that early exposure to pornography (and sexual activity) was more commonly reported by adolescents who sexually offended than those who committed only nonsexual offences. More recently, Burton, Leibowitz, Booxbaum, and Howard (2011) found that, compared to adolescents

who offended nonsexually, adolescents who offended sexually reported more exposure to pornography both prior to the age of 10 and after the age of 10. The few researchers who have examined young people's pornography use (in general) appear to suggest some relationship to sexual behaviour and, possibly, sexual offending. For example, it has been noted that adolescents who have documented sexual behaviour problems are more likely to have a history of viewing pornographic images (Becker & Hunter, 1997; Wieckowski et al., 1998). As this research was conducted in the mid-1990s, Internet pornography was not examined.

Bonino, Ciairano, Rabaglietti, and Cattelino (2006) found that the more boys reported viewing pornography, the more likely they were to have sexually harassed a peer and forced somebody to have sex. On the other hand, Burton and colleagues (2011) did not find a relationship between pornography exposure and various sexual offence characteristics, such as the age at onset of sexual offending, number of reported victims, or sexual offence severity. However, Burton and colleagues explored direct links between pornography exposure and sexual offence characteristics, and did not specifically examine Internet pornography. To date, there is little information regarding the relationship between pornography use and adolescent sexual offending in general and, more specifically, the relationship between pornography use and the characteristics of the sexual offences committed by adolescent who have sexually offended.

## CHAPTER 3

### Theoretical Perspectives

Sexual aggression is a multifaceted problem without a clearly defined cause and, historically, many fields of study and perspectives have contributed to the theoretical understanding of both normative and deviant sexual behaviours (Ryan & Lane, 1997). In this study, Attachment theory, Social Learning/Cognitive theory, and Media Cultivation Theory will be utilized to explore the subject of adolescent sexual offending and pornography.

#### Attachment Theory

Bowlby (1969) described attachment as an emotional bond between the infant and primary caregiver (typically the mother) which is characterized by the infant seeking proximity to the primary caregiver in order to promote the infant's survival. Bowlby (1969) proposed that infants engage in attachment behaviours that achieve or maintain the proximity they desire, and he perceived that infants have a genetic predisposition to behave in ways that enhance their survival by evoking caretaking responses from adults (an "attachment behavioral system").

According to Bowlby (1969), attachment occurs in four deepening stages: 1) indiscriminating social responsiveness, 2) discrimination towards one or more figures, 3) proximity seeking (attachment), and 4) formation of a goal-corrected partnership (Bowlby, 1969). Stage three (attachment) begins at about six months of age, when the infant notices a particular caregiver and formulates expectations of caregiver responses (Bowlby, 1969; Magai & McFadden, 1995). These expectations develop from the frequency and quality of the caregiver responses to attachment behaviour by the infant, and begin to form "internal working models", which are believed to be the basis of personality development (Alexander, 1992). When the

environment is viewed as unsafe, or “felt security” (Sroufe & Waters, 1977) is low, the infant engages in attachment behaviours in an effort to achieve protection. The manner in which the caregiver responds to these behaviours plays a role in the expectations that the infant begins to have of the caregiver and him/herself with that caregiver. An infant who receives consistent and warm attention from a parent, for example, will begin to view the world as a safe and nurturing place and see him/herself as worthy of being treated in such a manner. On the other hand, an infant who receives inconsistent attention or insensitive attention, as is the case in abusing and neglectful families (Azar, Barnes, & Twentyman, 1988; Azar, Breton, & Reiss-Miller, 1998), may begin to view the world as unsafe and him/herself as unworthy of love and affection.

Extensions of Bowlby’s initial definition of attachment have evolved to include consideration of attachment in childhood, adolescence, and adulthood. Attachment relationships are viewed as enduring bonds (Rice, 1990) and, as such, attachment throughout the lifespan, as well as the effect of attachment on development and adjustment, have received increasing attention (Gullone & Robinson, 2005; Rice, 1990; Rosenthal & Kobak, 2010). Attachment during childhood and adolescence has been studied empirically, with a focus on attachment relationships with both parents and peers, as well as the relationship between attachment and various aspects of adjustment (Armsden & Greenberg, 1987; Gullone & Robinson, 2005; Rice, 1990; Rosenthal & Kobak, 2010). However, in empirical studies, conceptualizations and operationalization of attachment have varied. Rice (1990) pointed out that researchers use various instruments to measure attachment based on their theoretical definitions of attachment; some have focused on positive elements of attachment such as “trust” or “communication”, while others have focused on dysfunctional dynamics of attachment such as “fusion” or “enmeshment” (Rice, 1990). Similarly, definitions and operationalization of adjustment or adaptation have varied among studies, with a focus on issues such as self-esteem, self-concept,

emotional adjustment and emotional functioning, social competence, behavioural functioning, and life satisfaction (Armsden & Greenberg, 1987; Rice, 1990; Rosenthal & Kobak, 2010).

Regardless of the operationalization of attachment, in general, attachment to parents has been demonstrated to relate to better functioning in children and adolescents (Armsden & Greenberg, 1987; Rice, 1990). For example, in their development of the Inventory of Parent and Peer Attachment (IPPA), Armsden and Greenberg (1987) found that quality adolescent-parent attachment significantly predicted self-esteem, life satisfaction, less depression/anxiety, and less resentment/ alienation. In his meta-analytic review, Rice (1990) found that adolescent-parent attachment was correlated with general adolescent adjustment, particularly social competence, interpersonal functioning, self-esteem, and general life satisfaction. For the purpose of this meta-analytic review, Rice (1990) defined attachment broadly, referring to previous conceptualizations of attachment as an important, enduring, and emotionally investing relationship between an adolescent and specific persons (Ainsworth, 1972, as cited in Rice, 1990; Josselson, 1988, as cited in Rice, 1990).

The role of attachment in the development of sexual offending behaviours has been studied with sexually offending adults to some degree, but relatively little with adolescents who have offended sexually (i.e., under the age of 18 years) (Rich, 2006). A relationship between attachment and sexual offending makes intuitive sense and has some grounding in theory. If Bowlby (1969) is correct, and early attachment patterns form the basis of future relationships, then early attachment disruption will contribute to significant and varied social problems. As sexual offending is a relational offence (i.e., there are at least two individuals involved) and attachment is believed to influence social competence (Armsden & Greenberg, 1987; Marshall, Hudson, & Hodkinson, 1993), attachment difficulties may be related to sexual offending.



In their study of sexually offending adults, McCormack, Hudson, and Ward (2002) used an attachment perspective in focusing on the participants' perceptions of early relationships. All of the participants in their study described experiences consistent with insecure attachment (i.e., neglect, abuse, parental inconsistency). Marsa and colleagues (2004) compared the attachment styles of adults who sexually offended against children with those who committed violent nonsexual offences, those who committed nonviolent nonsexual offences, and a community sample. They found that adults who sexually offended against children displayed significantly more insecure attachments than those in the other three categories and were four times less likely to report a secure attachment. Smallbone and colleagues (Smallbone & Dadds, 2000; Smallbone & McCabe, 2003) have also examined the relationship between attachment and sexual offending among adults. Smallbone and Dadds (2000) found that insecure attachment with one's father was significantly related to antisocial and coercive sexual behaviours among 162 undergraduate males. They further reported that, "childhood attachment may predict coercive sexual behavior independently of its relationship with antisociality and aggression" (p. 12). Smallbone and McCabe (2003) found that about one-third of incarcerated adult sexual offenders in their study had insecure maternal attachments.

Although attachment problems and theoretical implications of attachment in understanding the etiology of sexual offending behaviours are frequently referred to in the literature on adolescents (Rich, 2006), there has been little research, to date, regarding the relationship between attachment and adolescent sexual offending. Rich (2006) reported that attachment problems relate to the behaviours of adolescents who have sexually offended, but cited no empirical work addressing attachment and adolescent sexual offending. Araji (1997) reported that many sexually offending adolescents experienced disrupted family relationships and family discord, which are indicative of ruptured parental attachment. In a recent study that

employed an attachment framework in exploring adolescent sexual offending against children, Miner and colleagues (2010) found an indirect effect of attachment style on sexual offending against children. Specifically, Miner and colleagues found that attachment anxiety (i.e., fear of intimacy and rejection) affected interpersonal adequacy and involvement with peers, and that feelings of interpersonal inadequacy, when combined with oversexualization and positive attitudes toward others (i.e., a lack of cynicism, specifically), were more common among adolescents who committed sexual offences against children than among those who offended against peers or adults, and those who committed nonsexual offences. Miner and colleagues suggested that adolescents who turn to children to meet their intimacy needs do so because of a desire for interpersonal closeness and because of a fear of rejection. In their 2010 meta-analysis, however, Seto and Lalumière reported no significant differences in familial relationships, communication, and satisfaction (inclusive of variables related to childhood attachment) between those who offended sexually and those who offended nonsexually.

Researchers have also suggested that sexually offending adolescents who commenced their sexualized behaviours as children experienced significant attachment ruptures characterized by chaotic family environments, unexplained long-term absence of the primary caregiver, strangers coming in and out of the home, and frequent residential changes (Wieckowski et al., 1998). Additionally, experiences of parental rejection (blatant or perceived), lack of a positive home environment (e.g., lack of positive emotional connection between parent and child or a parent who dislikes their child), and a lack of a supportive or available parent are believed to be some specific risk factors for the continuation of sexualized behaviours among children (Johnson, 1993; Rich, 2002, 2003).

Based on empirical and theoretical information available to date, attachment theory is a reasonable theoretical perspective through which to explore the issue of adolescent sexual

offending. However, attachment theory is likely insufficient to be insufficient in explaining sexual offence characteristics. Thus, other theoretical perspectives must also be considered.

### Social Learning/Cognitive Theory

Albert Bandura developed both social learning and social cognitive theories (1969, 1986), and social learning theory, in particular, has been heavily cited in explaining the impact of media exposure on viewers (Bryant & Miron, 2004). According to social learning theory, children and adolescents learn by observing the behaviours and nuances of others (“observational learning”) and, when models are reinforced for their actions, similar behaviours are more likely to be imitated than when such behaviours are punished (Bandura, 1977). Additionally, according to social learning theory, children and adolescents are more likely to imitate media-based behaviours that have been glamourized (i.e., made to look cool or glorified) and performed by individuals to whom youth are attracted. This connection is often cited in the debate regarding the impact of music videos that portray negative representations of men and women, drugs, money, and perceived power (Bandura, 1986; Hoffner & Cantor, 1991). Social learning theorists suggest that video games, television, comic books, and the Internet (inclusive of pornography) provide youth (and children) with many opportunities for observational learning. As youth primarily view media (i.e., television or Internet) behind the closed doors of their bedrooms (Rideout & Hamel, 2006; Roberts, Foehr, & Rideout, 2005), there is heightened concern regarding the impact of what is being viewed.

In addition to explaining how behaviours are acquired, social learning theory clarifies how learned behaviours are maintained over time. Social learning theory suggests that behaviours are maintained when they successfully satisfy personal needs, therefore becoming a

self-reinforcing perpetual loop (Bandura, 1977, 1986). For instance, a youth looking for sexual arousal and a sense of control within sexual relationships might be drawn to pornography that portrays what he or she desires, but believes he or she cannot realistically achieve. Social learning theory also states that behaviours are maintained when they are socially endorsed or rewarded by the peer group. Similarly, Kirsh (2010) suggests that when consuming media, “youth observe the consequences of behaving in a particular manner, and as such, their own behaviors are modified accordingly” (p. 119). Using the example of pornography, a male adolescent who views pornographic images of women being forced into sexual acts might be at a heightened risk of acting out what he has viewed if such behaviour is also endorsed by his peer group (Kirsh, 2010). As well, if the women eventually “consent” or appear aroused by the forced sexual act, the use of sexual violence may be reinforced.

Because of its relevance to understanding the influences of Internet sexual images on behaviour, social learning theory has also been identified as a plausible theory in understanding the relationship between Internet pornography and adolescent sexual offending behaviours. Specifically, an individual might perceive the sexual content shown in pornography as arousing and pleasurable, and thereby attempt to re-enact this, leading to habituation over time (Taylor & Quayle, 2003). Further, Internet sexual images are believed to model and reinforce aggressive sexual acts for a child or an adolescent viewer (Gillespie, 2008; Kingston, Fedoroff, Firestone, Curry, & Bradford, 2008; Longo, 2004; Malamuth et al., 2000, 2003; Oddone-Paolucci, Genuis, & Violato, 1997; OJJDP, 2002; Rideout et al., 1999; Shim, Lee, & Paul, 2007) and, as such, young viewers are exposed to, and learn, a variety of elements that are related to sexual offending. These elements may include: the sexual acts, forceful methods for gaining compliance, perceived rewards (i.e., sexual interaction, “compliance”, sexual pleasure, power)

for behaviours that facilitate submission, and a lack of social or legal consequences for the sexually aggressive behaviour.

Social Cognitive Theory is an extension and revision of Social Learning Theory that was later developed by Bandura (1986) to include the importance of cognitions in any particular action. Many researchers have highlighted the importance of social learning/cognitive theory in explaining sexual offending by adolescents (Burton, 2000, 2003; Burton, Miller, & Shill, 2002; Kobayashi et al., 1995; Ryan, 2002), because it allows for consideration of cognitive elements involved in the social learning process. This approach is also of relevance in discussing how sexual offending might emerge for adolescents (or adults) after viewing sexual images in media, such as the Internet; through the media/Internet viewing process/experience, the adolescent may learn not only the sexually intrusive and possibly forceful acts modeled, but may also interpret that such acts are socially and morally acceptable (Costin, 2004). For example, if forceful sexual encounters are depicted frequently and as pleasurable, adolescents may infer that such interactions are common and welcome. Indeed, various researchers have identified concern regarding how sexual images may skew perceptions (i.e., cognitions) of sexuality (e.g., normalizing force or lack of consent in sexual relationships), and support attitudes of sexual aggression (Allen, D'Alessio, & Brezegel, 1995; Malamuth et al., 2000, 2003; Zillmann, 2000).

Nevertheless, although the viewing of sexual images in media/the Internet may, indeed, model many negative factors that could become risk factors for subsequent sexual offending, this is likely insufficient to explain the emergence of sexual offending behaviour. Rather, sexual offending behaviour may only emerge in the presence of additional risk factors that are created by potentially adverse life experiences, family relationship issues (e.g., attachment bonds), social relationships (peer/community), emotional/internal factors, and other environmental factors (i.e., sexualized home environment/type of sexual media exposure). Bandura (1986), for example,

noted the interrelationship (or bidirectional interactions) between environmental factors/influences (i.e., media, friends, and family members), behavioural influences (i.e., current repertoire of prosocial behaviours such as helping and sharing), and personal elements (i.e., individual beliefs, goals, self-perceptions, desires, intentions, etc.). As Malamuth and colleagues' (2000) research points out, although there are associations between pornography and sexual thoughts, feelings, and behaviours for adults (the social learning aspects), pornography exposure alone is not a sufficient marker or potential risk factor for future sexual offending risk, particularly in the general population.

### Media Cultivation Theory

Media cultivation theory posits that media can transform the reality of those who use it (Gerbner, Gross, Morgan, & Signorielli, 1994). According to this viewpoint, television, for example, is a significant force that acculturates viewers to beliefs and attitudes that are consistent with those displayed on television (Gerbner et al., 1994). This is a process that takes time, with the strongest impact of television evident for those who watch it the most (Gerbner et al., 1994). Multiple studies have provided support for this assertion with respect to adolescent sexual beliefs. Specifically, adolescents who watch the greatest amount of sexual content on television are the most likely to approve of casual sex (Bryant & Rockwell, 1994), consider unusual sexual behaviours as normal (Greenberg & Smith, 2002), and feel the most dissatisfaction with being a virgin (Courtright & Baran, 1980).

Whereas social learning theory functions primarily at the individual level and focuses on the specific behavioural influences of media portrayals (i.e., an adolescent who sees a young adult who is not much older than him/herself gaining prestige in pornography, might opt to

engage in similar behaviours), media cultivation theory posits an influence of media representations on general public perceptions (i.e., a larger worldview). Thus, with respect to sexual issues, media representations of sex may generate widespread beliefs about the prevalence of various sexual practices (creating certain sexual scripts on what is normal sex).

Media cultivation theory emphasizes that it is the repetitive exposure or its acceptance as the “norm” that better cultivates a schema. In other words, according to the media cultivation perspective, media (in general) offer a consistent, stable set of messages that serves as a common socializer (Gerbner, Gross, Morgan, & Signorielli, 1980), thereby creating a distorted picture of reality. Bech (1995) comments on the role of repetition when constructing heterosexual sexual identities: “There is the process of reiteration or citation: the performatives must be repeated again and again in order to be efficient and assure authority” (p. 189). It is this routine element, and the resulting construction of sexual schemas and scripts, that makes media cultivation theory applicable in discussions regarding pornography use by adolescents. Based on a number of studies, it appears that pornography is yet another technologically-based product used by youth in a routinized manner to augment their lives (Livingstone & Bober, 2005; Mitchell et al., 2003; Sabina, Wolak, & Finkelhor, 2008; Ybarra & Mitchell, 2005; Wolak et al., 2007).

Indeed, some recent research has been focused on the relationship between exposure to sexually explicit material/pornography and adolescents’ sexual attitudes, thoughts, and behaviours. Peter and Valkenburg (2008) found that adolescents became increasingly interested in sex, and distracted by thoughts of sex, the more frequently they used sexually explicit material. Svedin, Akerman, and Prieve (2011) found that male adolescents who frequently viewed pornography had more liberal or positive attitudes toward such material and, similarly, Lo and Wei (2005) found that exposure to pornography on the Internet, as opposed to other pornography, was most influential with respect to the expression of both permissive sexual

attitudes and behaviours. Braun-Courville and Rojas (2009) reported that adolescents who view pornography are more likely to engage in risky sexual behaviours, have multiple partners, and use drugs or alcohol during sexual encounters. In general, various researchers have argued that, when adolescents use pornography, this can affect the development of their sexual attitudes and behaviours, with a specific development of unrealistic or misleading attitudes about sex and relationships, and risky sexual behaviours (Braun-Courville & Rojas, 2009; Peter & Valkenburg, 2008b; Tsitsika et al., 2009).



## CHAPTER 4

### Research Design and Methodology

#### The Study

The purpose of the study was to examine the relationship between pornography exposure, including Internet pornography, and the sexual offence characteristics of adolescents who have sexually offended. As direct links between pornography use and sexual offending have not been demonstrated by previous research (Burton et al., 2011), the overarching question of interest in this study was if pornography use/exposure, in combination with attachment to parents and a history of abuse/neglect history, is related to various characteristics of the sexual offences committed by adolescents who have sexually offended. As such, the contribution of attachment, history of abuse/neglect, and pornography use to various sexual offence characteristics was explored.

The following research questions were of interest:

- Research Question 1:* Can the number of victims against whom an adolescent has sexually offended be predicted by attachment to parents, history of abuse/neglect, and pornography?
- Research Question 2:* Can the age group of victim(s) against whom an adolescent has sexually offended be predicted by attachment to parents, history of abuse/neglect, and pornography use?
- Research Question 3:* Can the gender of victim(s) against whom an adolescent has sexually offended be predicted by attachment to parents, history of abuse/neglect, and pornography use?
- Research Question 4:* Can sexual intrusiveness in sexual offending be predicted by attachment to parents, history of abuse/neglect, and pornography use?
- Research Question 5:* Can level of force in sexual offences be predicted by attachment to parents, history of abuse/neglect, and pornography use?

## Participants

The focus of this study was on male adolescents who committed sexual offences between 12 and 17 years of age. Females were excluded because sexual offences are largely perpetrated by males and there were insufficient numbers of females in the original database to allow for meaningful comparisons. The identified age range was selected because it corresponds with the age range covered by the Youth Criminal Justice Act, the primary legislation pertaining to adolescent crime in Canada. Thus, only male adolescents who sexually offended when they were between the ages of 12 and 17 were included in the present study. The participants were between 13 and 20 years of age when they completed the survey on which this study is based.

A number of participants were removed from the original data set as they did not meet criteria for inclusion in the present study. For inclusion in the study, at least one sexual offence had to have been committed when the participant was a minimum of 12 years of age; in Canada, individuals under the age of 12 cannot be held criminally culpable. Thus, any participant who ceased his sexualized behaviours prior to age 12 or only commenced sexual offending at or later than age 18, was removed from the data set and excluded from this study. Initially, it was proposed that only adolescents who first sexually abused others at a minimum of age 12 would be included in order to avoid including information from adolescents who first sexually abused others as children, and described victims they had as children when completing the survey (i.e., an adolescent who sexually abused a 9-year-old at the age of 10 would indicate that he abused a “child”, yet this would have been a peer at the time and is, therefore, misleading). However, many participants in the original sample commenced their sexualized behaviour prior to age 12 ( $n = 65$ ) and continued offending sexually thereafter. Thus, removal of all of these adolescents was not possible, as it would have resulted in a sample that was too small. In total, 308 participants were retained.

## Procedure

This study involved secondary analysis of a large data set that was originally created and collected by David Burton, a prominent researcher in the field of adolescent sexual offending. The original data set was created based on administration of an extensive survey (the “Ohio Evaluation”), which included a number of psychological measures and questionnaires, to 502 adolescents; 332 of these adolescents had offended sexually and 170 of the adolescents had committed only nonsexual offences. The original data set was comprised of non-identifying information, and all participants who completed the survey consented to doing so.

Although the data for this study originated from the United States (U.S., using only U.S. participants), when comparing sexual crimes committed by adolescents in Canada and the United States, it is generally agreed upon by researchers that both countries share similar occurrence rates. In Canada, adolescents are reported to be responsible for between 30% and 40% of the sexual offences that are committed against children under the age of 12 (Statistics Canada, 2007), and adolescents (between 12 and 17 years of age) in Canada have higher rates of sexual offending than adults (Brennan & Taylor-Butts, 2008). Similarly, in the U.S., adolescents (under the age of 18) are reported to be responsible for approximately 30-50% of sexual assaults against children (Barbaree & Marshall, 2008; CSOM, 1999), and according to the American Justice Department (as cited in Snyder, 2000), 23% of those committing sexual offences were under age 18, with adolescents between 12 and 17 years of age committing 19.5% of the sexual offences. Despite some differences in how adolescents who sexually offend are prosecuted in Canada and the U.S., as a population, this group of adolescents appears quite similar in their demographics and offence characteristics. In fact, some researchers have combined populations from these two countries in their research studies (Costin, 2004; Seto, McMurphy, Page, & Ennis, 2003; Worling, 2006). When comparing the management of, and treatment for, adolescents who

sexually offend, Canada and the United States share similar philosophies and principles that are grounded in evidence-based approaches (ATSA, 2003; McGrath, Cumming, Burchard, Zeoli, & Ellerby, 2010).

A number of analyses were conducted in this study. Demographic information was investigated in order to provide information about the participants involved. A number of independent and dependent variables were created in order to explore the hypotheses that were proposed, and these were investigated through a series of Linear, Logistic, and Multinomial Regression analyses.

## Measures

### *Demographic and Descriptive Variables*

A number of variables were created for the purpose of providing demographic information regarding the participants and addressing potential confounding variables. Prior to conducting analyses related to the primary research questions, a number of analyses were conducted in order to provide demographic and descriptive information regarding the participants.

### *Duration of Sexual Offending*

In their comparison of adults and juveniles who had sexually offended, Miranda and Corcoran (2000) found that adults reported longer abuse relationships with their victims, had more victims, and were more likely to commit penetration in their offences. Although a specific relationship between duration of offending and both the number of victims and penetration in offences was not explored, the salience of the duration of sexual offending is highlighted by Miranda and Corcoran's study.

Certainly, sexual offences may become more intrusive with time if there is ongoing compliance on the part of the victims or if the perpetrator becomes increasingly confident in his or her ability to avoid detection. Sexual offences may also become more forceful with time if victims begin to refuse participation. Additionally, with a longer duration of sexual offending, more opportunities exist for a greater number of victims and diversification in victim selection, including the ages and genders of the victims (i.e., offending against more age groups and both genders).

In the present study, participants were between 13 and 20 years of age at the time of completion of the questionnaire; however, they were, on average, almost 13 years of age when they commenced their sexualized behaviours and sexual offending, and 14 years of age when they ceased offending sexually. Given a possible relationship between the duration of sexual offending and sexual offence characteristics, older adolescents may have had more victims, and committed more intrusive or forceful sexual offences than younger adolescents, if they began sexually offending at an earlier (or similar) age. Thus, in order to account for the arbitrary nature of the age at which the questionnaire for this study was completed (i.e., relative to when the sexual offences actually occurred), Duration of Sexual Offending was substituted for Age of the participants. For each participant, Duration of Sexual Offending was calculated by subtracting

the youngest age at which a sexual offence was committed from the oldest age at which a sexual offence was committed. The average duration of sexual offending was 1.66 years ( $SD = 2.395$ ,  $n = 266$ ), with a range of 0 (less than 1 year) to 12 years.

### *Race*

In a subset sample ( $n = 306$ ) taken from the 502 participants who completed their survey, Burton and colleagues (2011) found that the sexually offending and nonsexually offending adolescents differed on race. However, Burton and colleagues did not control for race in analyses because race was not found to be significantly associated with any of the pornography exposure scales investigated in their study.

In a subset of the overall sample available for the present study, Burton and colleagues (2011) found that the majority of the adolescents who completed the survey identified themselves as either Caucasian ( $n = 153$ ) or African American ( $n = 101$ ). Additionally, 46 participants were classified as “Other” by Burton et al. Thus, for the present study, race was coded in the same manner as follows:

- 1 = White or Caucasian
- 2 = Black or African American
- 3 = Other

### *Social Desirability*

As the data set (i.e., from completion of the questionnaire) is entirely reliant upon the self-report of the adolescents who completed the survey, a social desirability score from the Balanced Inventory of Desirable Responding (BIDR) was included in all analyses, and it is referred to as Social Desirability.

### *Independent Variables*

Several independent variables were created for the purpose of all of the analyses of interest.

#### *Attachment Variables*

The Attachment variables were created by using the scores on the Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987) that was administered as part of the overall survey. The IPPA was developed to assess adolescents' perceptions of the positive and negative aspects of their relationships with parents and peers; trust, communication, and alienation are assessed on the IPPA. The revised IPPA (used in the current study) yields three overall Attachment scores (one for each of Mother, Father, and Peers), as well as 9 subscale scores (Trust, Communication, and Alienation for each of Mother, Father, and Peers). The revised IPPA is a 75-item (25 items for each of Mother, Father, and Peer scales), self-report questionnaire to which individuals respond on a 5-point Likert scale (Almost Never or Never True, Not Very Often True, Sometimes True, Often True, and Almost Always or Always True).

The IPPA was developed on youth 16-20 years of age; however, the authors indicate that successful use of the IPPA has been reported in several studies involving adolescents as young as 12 years of age (IPPA manual; Greenberg & Armsden 2008-2009). The authors report internal reliabilities (Cronbach's alpha) for the revised IPPA as follows: Mother Attachment, .87; Father Attachment, .89; Peer Attachment, .92. As well, the authors report studies demonstrating that the IPPA has positive correlations with measures of self-concept, degree of positive family coping, self-esteem, and life satisfaction. The authors recommend use of the revised IPPA (Mother, Father, Peer version) over the original IPPA (Parent and Peer version) whenever possible (IPPA manual; Armsden & Greenberg, 2008-2009).

### *Attachment to Mother*

This variable refers to the score on the Attachment to Mother scale of the Inventory of Parent and Peer Attachment (IPPA). Twenty-five items from the questionnaire are included in this scale. Scores can range from 0 to 125, with a higher score indicating better attachment.

### *Attachment to Father*

This variable refers to the score on the Attachment to Father scale of the Inventory of Parent and Peer Attachment (IPPA). Twenty-five items from the questionnaire are included in this scale. Scores can range from 0 to 125, with a higher score indicating better attachment.

### *History of Abuse in the Family Variable*

#### *Ever 3+ Types of Abuse*

Although it was initially proposed that either a 6-category (0 = No history of abuse/neglect, 1 = Sexual Abuse only, 2 = Physical Abuse only, 3 = Emotional Abuse only, 4 = Emotional + Physical Neglect only, 5 = 2+ Types of Abuse or Neglect) or 3-level (0 = No history of abuse/neglect, 1 = 1 type of abuse/neglect, 2 = 2 or more types of abuse/neglect) variable would be created, the composition of the sample did not permit this many categories in the variable, as insufficient numbers of participants would have fallen into each category. Thus, a dichotomous (0 = No; 1 = Yes) variable called “*Ever 3+ Types of Abuse*” was created. This variable was created by combining all abuse-related information available in the sample, including the participant’s self-report (e.g., were you sexually abused?) and elevated responses on the Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998) that was administered as part of the overall survey. Scores of 6+ on the CTQ sub-scales (Emotional Abuse, Physical



Abuse, Sexual Abuse, Emotional Neglect, Physical Neglect) were considered to be elevated for the purpose of this study.

The Childhood Trauma Questionnaire (Bernstein & Fink, 1998) is a 28-item self-report questionnaire that screens for histories of abuse and neglect in childhood. The authors note that its use is appropriate for individuals over the age of 12. The CTQ inquires about emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect, and yields a total score for each of these types of abuse/neglect. A 5-point Likert-type scale (i.e., 1 = Never True, 2 = Rarely True, 3 = Sometimes True, 4 = Often True, 5 = Very Often True) is used by respondents to respond to statements about childhood experiences.

The CTQ was validated on a sample of 2,201 respondents and has strong psychometric properties. Test-retest reliabilities over an average of 3.6 months were .86 overall, with similar consistency among scales (Emotional Abuse,  $r = .80$ ; Physical Abuse,  $r = .80$ ; Sexual Abuse,  $r = .81$ ; Emotional Neglect,  $r = .81$ ; Physical Neglect,  $r = .79$ ). Internal consistency estimates across a number of the validation samples yielded rates of .89 for the Emotional Abuse scale, .82 for the Physical Abuse scale, .92 for the Sexual Abuse scale, .89 for the Emotional Neglect scale, and .66 for the Physical Neglect scale (Bernstein & Fink, 1998).

With respect to validity of the CTQ, scales on the CTQ were found to correlate with similar scales on other instruments such as the Childhood Trauma Interview (Fink, 1995, as cited in Bernstein & Fink, 1998; Fink et al., 1995, as cited in Bernstein & Fink, 1998), The Child Maltreatment Interview (Briere, 1992a, as cited in Bernstein & Fink, 1998), and the Evaluation of Lifetime Stressors (Krinsley et al., 1997, as cited in Bernstein & Fink, 1998).

In utilizing the CTQ, the total score was used to dichotomize each type of abuse as present or absent. Any score of 6+ was coded as “present” for that type of abuse. This low cut-off score for the purpose of this study was two-fold: (1) The CTQ manual indicates that scores

in the range of 5-9 may be considered “none or minimal” abuse for Emotional Abuse (scores of 5-8), Physical Abuse (scores of 5-7), Emotional Neglect (scores of 5-9), and Physical Neglect (scores of 5-7). However, a “minimal” level of abuse might still be very impactful and might still indicate a number of incidents of abuse. As well, even one particularly harsh incident should still be regarded as abusive. With physical abuse, for example, a participant who indicated that it was “rarely true” that he/she “was punished with a belt, a board, a cord, or some other hard object” and indicated that it was “never true” for any of the other 4 items on the Physical Abuse scale would receive a score of 6. Arguably, even “rare” incidents of having been punished with a belt, board, cord, or other hard object would constitute physical abuse; yet, according to the CTQ scoring, this would be regarded as “none or minimal”. For the purpose of this study, “minimal” was considered to be “present”; (2) This study did not assess each individual’s interpretation of, or impact of abuse. Children and adolescents might not understand or perceive that they were abused if they were accustomed to this type of behaviour in their home, or if they perceived that they “deserved” the abuse (e.g., they were punished with a belt because they behaved badly). Participants might have provided a response of “never true” to the statement “I believe that I was physically abused”, yet still have indicated that it was “rarely true” or “sometimes true” to other statements on the Physical Abuse scale. In order to minimize reliance on interpretation and possible underreporting of the abuse, the lowest possible threshold was utilized as an indicator of abuse.

### *Pornography Use Variables*

The original data set provided responses from the participants on a number of pornography-related questions regarding the frequency of pornography use, age at pornography

exposure, and type of pornography viewed. Based on the available data, a number of pornography exposure-related variables were created for this study as follows.

#### *Exposure to Child Sexual Abuse Images*

This continuous variable was created by summing the number of different types of exposure to images of children, including both before and after age 10. From the survey, having viewed any of the following was identified:

- Adults having sex with children in photographs
- Adults having sex with children in movies
- Adults having sex with children on the web or internet
- Children having sex with children in photographs
- Children having sex with children in movies
- Children having sex with children on the web or internet

The presence of each type of exposure was assigned a value of 1. Thus, the Total Score for *Exposure to Child Sexual Abuse Images* ranged from 0 – 12 (combining the Total Score for before and after age 10).

#### *Exposure to Adult Pornography*

This continuous variable was created by summing the number of different types of exposure to adult pornography, including both before and after age 10. From the survey, having viewed any of the following was identified:

- Adults having sex in photographs
- Adults having sex in movies
- Adults having sex on the web or internet

The presence of each type of exposure was assigned a value of 1. Thus, the Total Score for *Exposure to Adult Pornography* ranged from 0 - 6 (combining items for before and after age 10). Any pornography that included children with the adults, or adults being forced to engage in sexual activity, was excluded from this variable.

#### *Exposure to Forceful Adult Pornography*

This continuous variable was created by summing the number of different types of exposure to forceful pornography, including both before and after age 10. From the survey, having viewed any of the following was identified:

- Adults forcing adults to have sex in photographs
- Adults forcing adults to have sex in movies
- Adults forcing adults to have sex on the web or internet

The presence of each type of exposure was assigned a value of 1. Thus, the Total Score for *Exposure to Forceful Adult Pornography* ranged from 0 - 6 (combining items for before and after age 10).

#### *Exposure to Live Sex*

This continuous variable was created by summing the number of different types of exposure to live sex, including both before and after age 10. From the survey, having viewed any of the following was identified:

- Adults having sex in person
- Adults forcing adults to have sex in person
- Adults having sex with children in person
- Children having sex with children in person

The presence of each type of exposure was assigned a value of 1. Thus, the Total Score for *Exposure to Live Sex* ranged from 0 - 8 (combining items for before and after age 10).

#### *Age at Internet Pornography Exposure*

A 3-group categorical variable was created to identify when participants first viewed Internet pornography, with participants coded into one of the following three groups: Never viewed Internet pornography = 0, first viewed Internet pornography before age 10 = 1, first viewed Internet pornography after age 10 = 2.

#### *Dependent Variables*

##### *Number of Victims*

A continuous variable was provided in the original data set, indicating the total number of sexual abuse victims reported by the participant. Analysis of the distribution for total number of victims revealed a skewed distribution. Therefore, the data were re-coded into a multi-level variable as follows: 0 = 0 victims ( $n = 26$ , 8.4%), 1 = 1 victim ( $n = 119$ , 38.6%), 2 = 2 victims ( $n = 45$ , 14.6%), 3 = 3 victims ( $n = 35$ , 11.4%), 4 = 4 victims ( $n = 18$ , 5.8%), 5 = 5 victims ( $n = 12$ , 3.9%), and 6 = 6+ victims ( $n = 33$ , 10.4%). Analysis of the re-coded Total Number of Victims variable indicated that the distribution was not significantly skewed. Thus, this re-coded variable was used as the dependent variable in the Regression analyses.

##### *Victim Age Group*

A dichotomous variable (0 = child victims only, 1 = not only child victims) was created, differentiating between those who had sexually offended against children only and those who had sexually offended against any victim age group other than against children only (i.e., against

peers only, adults only, or any combination of children, peers, and adults). This breakdown was determined by the data set, as just over half of the sample ( $n = 158$ , 51.3%) had sexually offended only against children, 70% ( $n = 216$ ) reported at least one child victim, and only 14% ( $n = 43$ ) had offended against only peers, only adults, or both. Further breakdown of the sample was not possible, as too few participants would have been included in each group.

### *Victim Gender*

A 3-category (dummy-coded) variable was created to differentiate those participants who sexually offended against only males, those who sexually offended against only females, and those who indicated both male and female victims.

### *Sexual Intrusiveness*

Initial examination of the sample indicated that just under 4% ( $n = 12$ , 3.9%) had committed only non-contact sexual offences, 14.0% ( $n = 43$ ) committed fondling as the most intrusive type of sexual offence, 19.8% ( $n = 61$ ) committed oral penetration, and 47.4% ( $n = 146$ ) committed vaginal or anal penetration. Information regarding the intrusiveness of the sexual offending was missing for 14.9% ( $n = 46$ ) of the sample. A dichotomous Sexual Intrusiveness variable was created (0 = non-contact or fondling, 1 = any penetration) by differentiating those participants who had ever committed any type of penetration (i.e., oral, vaginal, or anal, either by penetrating the victim or having the victim penetrate them;  $n = 207$ ) from those who had committed non-contact sexual offences or fondling ( $n = 55$ ).

### *Level of Force*

In order to gain victim compliance, 46.4% ( $n = 143$ ) of the sample reported having used favours, 6.8% ( $n = 21$ ) reported having used threats, and 21.1% ( $n = 65$ ) reported having used force. Information regarding the force in offences was missing for 25.6% ( $n = 79$ ) of the sample. Given this breakdown, these were collapsed into a dichotomous variable that differentiated those who used favours from those who used threats or force (0 = favours, 1 = threats or force).

## CHAPTER 5

### Results

#### Demographic Information

The total sample consisted of 308 male adolescents, all of whom had completed a self-report questionnaire. The adolescents ranged in age from 13 to 20 years at the time of completion of the questionnaire ( $M = 16.76$ ,  $SD = 1.61$ ,  $n = 299$ ), with a median age of 17 years. As is noted in Table 1, almost half of the participants were Caucasian.

Information related to family composition was available for 93.8% ( $n = 289$ ) of the sample. Most commonly, participants reported having been raised in their original two-parent family (i.e., mother and father; 31.8%,  $n = 98$ ), with the next largest group reporting having been raised by a single mother (23.1%,  $n = 71$ ). Although just under 6% ( $n = 18$ ) of the participants identified a foster placement as the family they were raised in, almost 28% ( $n = 86$ ) of the participants reported having had at least one foster placement. For those who had experienced a foster placement, an average of 6 foster placements was reported ( $M = 6.23$ ,  $SD = 18.43$ ), with a range of 1 to 148 placements reported.

#### Reliability Analysis

Reliability analyses were conducted for the scale-based variables to be included in this study, with results provided in Table 2. As is evident in Table 2, the variables all had acceptable reliability.



*Table 1:  
Demographic Information of Participants*

	<i>n</i>	%
Racial Background ( <i>n</i> = 307)		
Caucasian	147	47.7
African American	84	27.3
Other	76	24.7
Primary Family Composition ( <i>n</i> = 289)		
Mother and Father	98	31.8
Single Mother	71	23.1
Mother and Partner	50	16.2
Single Father	11	3.6
Father and Partner	8	2.6
Grandparent	24	7.8
Other Relative	9	2.9
Foster Setting	18	5.8

Table 2: Cronbach Alpha Levels for Independent Variables

Variable	<i>n</i> items	$\alpha$
Attachment to Mother ( <i>n</i> = 231)	25	.77
Attachment to Father ( <i>n</i> = 199)	25	.85
Exposure to Child Sexual Abuse Images ( <i>n</i> = 280)	12	.95
Exposure to Adult Pornography ( <i>n</i> = 275)	6	.88
Exposure to Forceful Adult Pornography ( <i>n</i> = 280)	6	.90
Exposure to Live Sex ( <i>n</i> = 282)	8	.79

## Descriptive Analyses

### *Independent Variables and Covariates*

#### *Victimization History*

Information related to victimization history was available for the majority of the sample, and the results indicate high levels of victimization. Of note is that the majority of the participants experienced multiple types of victimization, with over 90% (90.6%,  $n = 279$ ) reporting two or more types of abuse or neglect and 82.5% ( $n = 254$ ) indicating three or more types of abuse or neglect. Further information is provided in Table 3.

#### *Exposure to Pornography*

A considerable amount of exposure to pornography was reported by the participants in this study (See Table 3). The majority of the participants (89.8%,  $n = 298$ ) reported exposure to some form of pornography (i.e., child sexual abuse images, forceful and non-forceful adult-based pornography) and/or live sex, and over one-third of the participants (34.6%,  $n = 115$ ) reported having viewed child sexual abuse images. Exposure to Internet pornography was identified by almost two-thirds of the sample (61%,  $n = 188$ ), and the age at exposure to Internet pornography was almost evenly split before and after age 10. See Table 3 for additional information.

Table 3: History of Victimization and Exposure to Pornography

	<i>n</i> (Total # of participants reporting)	%
<b>Victimization History</b>		
Sexual Abuse	235 (302)	76.3
Physical Abuse	256 (301)	83.1
Emotional Abuse	242 (300)	78.6
Neglect	284 (301)	92.2
2+ Types of Abuse or Neglect	279 (299)	90.6
3+ Types of Abuse or Neglect	254 (298)	82.5
<b>Exposure to Pornography</b>		
Exposure to Child Sexual Abuse Images	115 (303)	34.6
Exposure to Adult Pornography	286 (299)	86.1
Exposure to Forceful Adult Pornography	134 (306)	40.4
Exposure to Live Sex	215 (305)	64.8
Exposure to Any <sup>a</sup>	298 (308)	89.8
Exposure to Internet Pornography	188 (290)	61.0
<b>Age at First Internet Pornography Exposure</b>		
Before Age 10	91 (286)	29.5
After Age 10	94 (286)	30.5

<sup>a</sup>Exposure to Child Sexual Abuse Images, Adult Pornography, Forceful Adult Pornography, or Live Sex

#### *Age of Adolescents at Sexual Behaviour/Sexual Offending*

The participants were, on average, almost 13 years of age ( $M = 12.78$ ,  $SD = 2.76$ , range = 5 to 17 years,  $n = 269$ ) at the time of their first sexual offence or sexualized behaviour. They were, on average, 14 years of age ( $M = 14.44$ ,  $SD = 1.55$ , range = 12 to 18,  $n = 266$ ) at the time of their last sexual offence. For the purpose of this study, all participants who ceased their sexualized behaviour prior to age 12 or only commenced their sexual offending after age 18 (i.e., ages 19+) were removed from the data set. This retained all participants who, based on age, would have been chargeable for at least one sexual offence in Canada (i.e., a minimum of age 12) but still considered an adolescent. Although two participants were 18 at the time of their last

sexual offences (i.e., an “adult” in Canadian terms), they were retained in the data set because they both had additional offences prior to age 18 (one commencing at 15 and one at 16).

### *Duration of Sexual Offending*

The duration of the participants’ sexual offending could be calculated for 86.4% ( $n = 266$ ) of the sample. Information related to the age at first or last sexualized behaviour/sexual offending was missing for the remaining 13.6% ( $n = 42$ ) of the sample. The average duration of sexual offending for those reporting this information was 1.66 years ( $SD = 2.40$ ) with a range of 0 (all incidents occurred in less than one year) to 12 years (which would include both sexualized behaviour, prior to age 12, as well as sexual offending).

### *Dependent Variables*

#### *Victim Characteristics*

Participants reported between 0 to 129 victims, with an average of 3.13 victims ( $M = 3.13$ ,  $SD = 8.17$ ,  $n = 288$ ). The majority (88.5%) of the sample reported having between 0-5 victims. Of the total sample, just over half (51.3%,  $n = 158$ ) reported having sexually offended against only children and more than two-thirds (70.1%,  $n = 216$ ) reported ever having had a child victim. Sexual offences against only female victims was reported most commonly by the participants in this sample (40.6%,  $n = 125$ ). Although having sexually offended against only males was reported by 18.2% ( $n = 56$ ) of the participants, 43.5% ( $n = 134$ ) of the participants reported ever having offended against a male. Further information regarding the number of victims, victim ages/age group, and victim gender is provided in Table 4.

*Offence Characteristics:*

*Sexual Intrusiveness and Level of Force in Offences*

The majority of the participants in this study (67.2%,  $n = 207$ ) reported having committed some type of penetration (i.e., oral, vaginal, or anal, either by penetrating the victim or having the victim penetrate them) in their sexual offending. With respect to the level of force involved, the use of threats and/or force to gain compliance was reported less commonly than the use of tricks, favours, or bribes. See Table 4 for further information regarding the sexual intrusiveness and level of force in the sexual offences.

Table 4:

*Breakdown of Dependent Variables for Descriptive Analyses*

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	<i>n</i>	%
<hr/>		
Number of Victims ( <i>n</i> = 288)		
0	26	8.4
1	119	38.6
2	45	14.6
3	35	11.4
4	18	5.8
5	12	3.9
6+	33	10.4
Victim Age Group ( <i>n</i> = 259)		
Only Children	158	51.3
Not Only Children	101	32.8
Victim Gender ( <i>n</i> = 259)		
Male Only	56	18.2
Female Only	125	40.6
Male + Female	78	25.3
Sexual Intrusiveness ( <i>n</i> = 262)		
Noncontact or Fondling	55	17.9
Any Penetration	207	67.2
Level of Force ( <i>n</i> = 229)		
Favours	143	46.4
Threats or Force	86	27.9

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Note: Percent values do not total to 100% due to missing cases.

## Analyses

Although informed by a review of the literature and previous empirical findings, this investigation was largely exploratory in nature as limited research has been specifically focused on the relationship between attachment, victimization history, pornography exposure, and sexual offending by adolescents. An alpha level of .05 was used to determine significance of findings in all analyses. The decision to use an alpha level of .05 and accept the possibility of Type I error was made because of the exploratory nature of this study. As such, it is expected that a significant finding would occur on the basis of chance alone for 1/20 of the analyses. For each analysis, the potential covariates (Social Desirability, Race, Duration of Sexual Offending) were entered into the first block in order to control for these.

*Research Question 1:* Do attachment to parents, history of abuse/neglect, and pornography use predict the number of victims against whom an adolescent has sexually offended?

*Hypothesis:* In combination, attachment to parents, history of abuse/neglect, and pornography use will predict the number of victims against whom an adolescent has sexually offended. It is expected that the poorer the attachment to parents, the greater number of abuses experienced, and that the more that pornography was viewed, the more victims the adolescent will have.

A forced entry, linear regression was conducted to predict the number of victims (i.e., 0-6+) using the covariates and independent variables initially identified (see Table 5). In the first block, the covariates entered into the regression (Social Desirability, Race, Duration of Sexual Offending) explained 37.3% of the variance in the Total Number of Victims reported,  $R^2 = .37$ ,

$F(3,160) = 31.74, p < .001$ . However, this was primarily accounted for by the contribution of Duration of Sexual Offending, which was the only covariate that was significant in the analysis. When the independent variables were included in the regression analysis in the second block, Exposure to Live Sex explained another 2.2% of the variance, which was a significant increase. In total, 39.5% of the variance in the Total Number of Victims reported was explained by this final regression model,  $R^2 = .40, F(1,159) = 5.75, p < .05$ , with Exposure to Live Sex and Duration of Sexual Offending significantly predicting the Total Number of Victims reported. The results indicate that, the more exposure to live sex and the longer the duration of sexual offending, the greater the number of victims reported.



Table 5: Results of Linear Regression for Number of Victims

Regression	$R^2$	$F$	$df(1,2)$	b	SEb	$\beta$	$t$	$p$
<b>Block 1<sup>a</sup></b>	.37	31.74	3, 160					.000
Constant				2.30	.98		2.35	.000
Duration of Sexual Offending				.43	.05	.59	9.16	.000
Race				.05	.17	.02	.30	.762
Social Desirability				-.01	.01	-.05	-.80	.426
<b>Block 2<sup>b</sup></b>	.40	5.75	1, 159					.018
Constant				1.40	.98		1.98	.049
Duration of Sexual Offending				.42	.05	.57	8.79	.000
Exposure to Live Sex				.15	.06	.15	2.40	.018
Race				.10	.17	.04	.61	.541
Social Desirability				-.01	.01	-.05	-.79	.430

<sup>a</sup> Excluded variables: Attachment to Mother, Attachment to Father, Ever 3+ Types of Abuse, Exposure to Child Sexual Abuse Images, Exposure to Adult Pornography, Exposure to Forceful Adult Pornography, Exposure to Live Sex, Age at Internet Pornography Exposure

<sup>b</sup> Excluded variables: Attachment to Mother, Attachment to Father, Ever 3+ Types of Abuse, Exposure to Child Sexual Abuse Images, Exposure to Adult Pornography, Exposure to Forceful Adult Pornography, Age at Internet Pornography Exposure

*Research Question 2:* Do attachment to parents, history of abuse/neglect, and pornography use predict the age group of victim(s) an adolescent has sexually offended against?

*Hypothesis:* In combination, attachment to parents, history of abuse/neglect, and pornography use will predict the age group of the victims an adolescent has sexually offended against. It is expected that the poorer the attachment to parents, the greater number of abuses experienced, and the more that pornography was viewed, the more likely the adolescent will have victims from more than one age group.

A logistic regression was conducted to predict victim age group (i.e., child victims only versus not only child victims) using all of the identified covariates and independent variables as predictors. Block 1 of the regression involved forced entry of the covariates (Race, Duration of Sexual Offending, and Social Desirability), which resulted in a significant model,  $\chi^2 = 11.03$ ,  $df = 4$ ,  $p < .05$ . As can be seen in Table 6, of the covariates, only Duration of Sexual Offending was significant; for every one-year increase in the duration of sexual offending, participants were 1.2 times as likely to have offended against peers only, adults only, or any combination of children, peers, and adults versus against only child victims. In Block 2, the forced entry of all of the independent variables was not significant overall; however, both Duration of Sexual Offending ( $p < .01$ ) and Ever 3+ Types of Abuse ( $p < .05$ ) were significant. As well, those with 3+ Types of Abuse (versus less than 3 types of abuse) were 3.9 times as likely to have offended against only peers, only adults, or a combination of age groups (i.e., any combination of children, peers, and adults) than against only children. In this analysis, the attachment history and exposure to pornography variables did not help to explain the age group of the victims.

Table 6: Results of Logistic Regression for Victim Age Group

	$\beta$	SE $\beta$	Wald	<i>df</i>	<i>p</i>	$e^{\beta}$	95% CI
<b>Block 1</b>							
Duration of Sexual Offending	.22	.08	8.44	1	.004	1.25	1 .08, 1.45
Race							
Black*			2.44	2	.295		
White	.75	.56	1.80	1	.179	2.12	.71, 6.37
Other	.13	.48	.07	1	.792	1.14	.44, 2.94
Social Desirability	-.00	.02	.04	1	.831	1.00	.96, 1.03
Constant	-.75	1.49	.25	1	.615	.47	
<b>Block 2</b>							
Duration of Sexual Offending	.23	.08	7.99	1	.005	1.26	1.07, 1.49
Ever 3+ Types of Abuse	1.37	.61	5.06	1	.024	3.94	1.19, 13.03
Race							
Black*			.81	2	.666		
White	.54	.61	.78	1	.378	1.71	.52, 5.67
Other	.36	.52	.47	1	.494	1.43	.52, 3.96
Social Desirability	.00	.02	.00	1	.962	1.00	.96, 1.04
Attachment to Mother	-.01	.01	1.20	1	.274	.99	.98, 1.01
Attachment to Father	-.01	.01	1.58	1	.208	.99	.98, 1.00
Exposure to Child Sexual Abuse Images	.01	.10	.00	1	.951	1.01	.83, 1.22
Exposure to Adult Pornography	-.03	.19	.02	1	.878	.97	.67, 1.41
Exposure to Forceful Adult Pornography	-.08	.15	.28	1	.598	.92	.69, 1.24

Exposure to Live Sex	.14	.20	.50	1	.478	1.15	.78, 1.68
Age at Internet Pornography Exposure							
No Exposure*			.60	2	.741		
Before Age 10	-.16	.53	.10	1	.757	.85	.30, 2.39
After Age 10	.36	.53	.46	1	.497	1.44	.51, 4.07
Constant	.02	2.01	.00	1	.994	1.02	

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\*Reference Group

*Research Question 3:* Do attachment to parents, history of abuse/neglect, and pornography use predict the gender of victim(s) an adolescent has sexually offended against?

*Hypothesis:* In combination, attachment to parents, history of abuse/neglect, and pornography use will predict the gender of the victims an adolescent has sexually offended against. It is expected that the poorer the attachment to parents, the greater number of abuses experienced, and the more that pornography was viewed, the more likely the adolescent will have both male and female victims.

A multinomial regression analysis was conducted with Victim Gender (i.e., only male victims, only female victims, both male and female victims) as the dependent variable. In a multinomial regression, the dependent variable has 3 or more groups which are compared, and one of the groups is identified as the referent group. The referent group selected for this multinomial regression analysis was the group of participants who offended against both male and female victims. Thus, those in the male only and female only groups were compared in

regards to the odds of being in those respective groups versus the odds of being in the group of participants who offended against both male and female victims.

When both the male only and female only groups were compared to the male + female group, Duration of Sexual Offending and Exposure to Live Sex were both significant. With increased duration of sexual offending and increased exposure to live sex, there was a decreased likelihood (decreased odds) of being in the male only or female only groups, compared to being in the group of participants who offended against both males and females. See Table 7 for these results.

Table 7: Results of Multinomial Regression for Victim Gender

	$\beta$	SE $\beta$	Wald	df	p	e $^{\beta}$	95% CI
Intercept							
<i>Male Only</i>	2.43	3.04	.64	1	.425		
<i>Female Only</i>	.53	2.35	.05	1	.821		
Duration of Sexual Offending							
<i>Male Only</i>	-.53	.20	6.66	1	.010	.59	.40, .88
<i>Female Only</i>	-.24	.09	6.86	1	.009	.79	.66, .94
Exposure to Live Sex							
<i>Male Only</i>	-.97	.32	9.05	1	.003	.38	.20, .71
<i>Female Only</i>	-.58	.25	5.36	1	.021	.56	.34, .92
Attachment to Mother							
<i>Male Only</i>	-.02	.01	1.27	1	.260	.98	.96, 1.01
<i>Female Only</i>	-.01	.01	1.20	1	.273	.99	.97, 1.01
Attachment to Father							
<i>Male Only</i>	.00	.01	.14	1	.704	1.00	.98, 1.03
<i>Female Only</i>	.01	.01	.87	1	.351	1.01	.99, 1.02
Social Desirability							
<i>Male Only</i>	.00	.03	.00	1	.996	1.00	.94, 1.06
<i>Female Only</i>	.02	.02	.59	1	.442	1.02	.97, 1.07

Race								
<i>Male Only</i>								
Black*	.53	.98	.29	1	.589	1.70	.25, 11.55	
White	-1.43	.80	3.23	1	.072	.24	.05, 1.14	
Other	0 <sup>b</sup>			0				
<i>Female Only</i>								
Black*	.58	.78	.55	1	.458	1.78	.39, 8.24	
White	-1.05	.64	2.66	1	.103	.35	.10, 1.23	
Other	0 <sup>b</sup>			0				
Age at Internet Pornography Exposure								
<i>Male Only</i>								
No Exposure*	-.20	.76	.07	1	.794	.82	.19, 3.61	
Before Age 10	-1.10	.89	1.53	1	.217	.33	.06, 1.90	
After Age 10	0 <sup>b</sup>			0				
<i>Female Only</i>								
No Exposure*	-.56	.61	.86	1	.353	.57	.17, 1.87	
Before Age 10	.07	.64	.01	1	.916	1.07	.30, 3.78	
After Age 10	0 <sup>b</sup>			0				
Exposure to Child Sexual Abuse Images								
<i>Male Only</i>								
	.20	.16	1.48	1	.224	1.22	.88, 1.68	
<i>Female Only</i>								
	-.01	.12	.01	1	.924	.99	.79, 1.24	
Exposure to Adult Pornography								
<i>Male Only</i>								
	.23	.28	.68	1	.409	1.25	.73, 2.15	
<i>Female Only</i>								
	.19	.22	.76	1	.384	1.21	.79, 1.84	
Exposure to Forced Adult Pornography								
<i>Male Only</i>								
	.29	.23	1.58	1	.208	1.34	.85, 2.09	
<i>Female Only</i>								
	.15	.18	.73	1	.394	1.16	.82, 1.63	

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\*Reference Group

*Research Question 4:* Can sexual intrusiveness in sexual offending be predicted by attachment to parents, history of abuse/neglect, and pornography use?

*Hypothesis:* In combination, attachment to parents, history of abuse/neglect, and pornography use will predict the sexual intrusiveness of an adolescent's sexual offending. It is expected that the poorer the attachment to parents, the greater number of abuses experienced, and the more that pornography was viewed, the more likely the adolescent will have committed penetration in offences.

A forced entry logistic regression was conducted to predict sexual intrusiveness (i.e., non-contact or fondling vs. any penetration) in the participants' offences using the covariates and independent variables initially identified. With only the covariates entered, the regression was not significant,  $\chi^2 = 4.16$ ,  $df = 3$ ,  $p > .05$ , and none of the covariates made a significant contribution in predicting sexual intrusiveness in this model. A forced entry of the independent variables was conducted next; however, the final regression model was not significant,  $\chi^2 = 9.21$ ,  $df = 13$ ,  $p > .05$ . In this analysis, none of the attachment history, abuse history, and exposure to pornography variables were helpful in explaining the sexual intrusiveness of the offences. See Table 8 for these results.

Table 8: Results of Logistic Regression for Sexual Intrusiveness in Offences

	$\beta$	SE $\beta$	Wald	<i>df</i>	<i>p</i>	$e^{\beta}$	95% CI
<b>Model</b>							
Duration	.18	.11	2.51	1	.113	1.19	.96, 1.48
Race							
Black*			1.16	2	.559		
White	-.77	.72	1.14	1	.286	.46	.11, 1.90
Other	-.54	.64	.72	1	.395	.58	.16, 2.04
Social Desirability	.00	.02	.02	1	.892	1.00	.96, 1.04
Attachment to Mother	-.01	.01	1.78	1	.183	.99	.96, 1.01
Attachment to Father	.00	.01	.44	1	.507	1.00	.99, 1.26
Ever 3+ Types of Abuse	.70	.70	1.03	1	.311	2.02	.52, 7.91
Exposure to Child Sexual Abuse Images	.02	.11	.03	1	.872	1.02	.82, 1.26
Exposure to Adult Pornography	-.03	.20	.03	1	.869	.97	.65, 1.44
Exposure to Forceful Adult Pornography	.23	.17	1.69	1	.193	1.25	.89, 1.76
Exposure to Live Sex	-.10	.22	.21	1	.645	.90	.59, 1.39
Age at Internet Pornography Exposure							
No Exposure*			.00	2	.998		
Before Age 10	.04	.59	.00	1	.952	1.04	.33, 3.29
After Age 10	-.01	.62	.00	1	.985	.99	.29, 3.32
Constant	2.13	2.18	.95	1	.329	8.43	

\* Reference Group



*Research Question 5:* Can level of force in sexual offences be predicted by attachment to parents, history of abuse/neglect, and pornography use?

*Hypothesis:* In combination, attachment to parents, history of abuse/neglect, and pornography use will predict the level of force employed in an adolescent's sexual offending. It is expected that the poorer the attachment to parents, the greater number of abuses experienced, and the more that pornography was viewed, the more likely the adolescent will have used force in the sexual offences.

A forced entry logistic regression analysis was conducted to predict the level of force (i.e., 0 = favours, 1 = threats or force) in the participants' offences using the covariates and independent variables initially identified. With only the covariates entered, the model was not significant,  $\chi^2 = 4.87$ ,  $df = 4$ ,  $p > .05$ , and none of the covariates made a significant contribution in predicting the level of force in offences in this model. A forced entry of the independent variables was conducted next; however, the final model was not significant,  $\chi^2 = 11.47$ ,  $df = 13$ ,  $p > .05$ . In this regression, none of the attachment history, abuse history, and exposure to pornography variables was helpful in explaining the level of force in the sexual offences. See Table 9 for these results

Table 9: Results of Logistic Regression for Level of Force in Offences

	$\beta$	SE $\beta$	Wald	<i>df</i>	<i>p</i>	$e^\beta$	95% CI
<b>Model</b>							
Duration	.08	.08	1.10	1	.294	1.09	.93, 1.27
Race							
Black*			1.89	2	.390		
White	.59	.68	.76	1	.382	1.81	.48, 6.80
Other	.74	.54	1.88	1	.170	2.10	.73, 6.08
Social Desirability	-.03	.02	1.53	1	.216	.97	.94, 1.02
Attachment to Mother	-.00	.01	.40	1	.527	1.00	.98, 1.01
Attachment to Father	-.01	.01	.85	1	.357	.99	.98, 1.01
Ever 3+ Types of Abuse	.39	.68	.33	1	.564	1.48	.39, 5.65
Exposure to Child Sexual Abuse Images	.01	.10	.01	1	.933	1.01	.83, 1.23
Exposure to Adult Pornography	-.04	.19	.04	1	.850	.96	.67, 1.40
Exposure to Forceful Adult Pornography	-.11	.16	.48	1	.489	.90	.66, 1.22
Exposure to Live Sex	.09	.21	.20	1	.651	1.10	.73, 1.65
Age at Internet Pornography Exposure							
No Exposure*			1.93	2	.381		
Before Age 10	.18	.53	.12	1	.726	1.20	.43, 3.40
After Age 10	-.71	.58	1.68	1	.195	.47	.15, 1.45
Constant	2.31	2.08	1.24	1	.266	10.12	

\*Reference Group

## CHAPTER 6

### Discussion

The purpose of this study was to explore the relationship between victimization history, attachment to parents, pornography exposure/use, and characteristics of the sexual offences committed by male adolescents. It was hypothesized that, the poorer the attachment to parents, the greater number of abuses experienced, and the more exposure to pornography, the more likely an adolescent would be to have had more victims, have offended against more age groups, have both male and female victims, have committed penetration in his sexual offences, and been forceful or violent in his sexual offences.

The first three hypotheses received some support from the present investigation. The total number of victims and the gender of the victims reported by an adolescent were explained primarily by the adolescent's exposure to live sex and the duration of his sexual offending. The more exposure to live sex that was reported by the adolescent and the longer the duration of his sexual offending, the greater the number of victims reported, and the greater likelihood that an adolescent sexually offended against both males and females, as opposed to only males or only females. As well, having experienced three or more types of abuse and having sexually offended for a longer period of time predicted an increased likelihood that an adolescent sexually offended against only peers, only adults, or a combination of age groups (i.e., any combination of children, peers, and adults) as opposed to against only children. On the other hand, the results of this study did not support the last two hypotheses: poorer attachment to parents, a greater number of abuses experienced, and more exposure to pornography were not predictive of penetration and the use of force or violence in sexual offences.

In conceptualizing this study, it was identified that single theoretical perspectives may be limited in explaining the characteristics of the sexual offences committed by adolescents and that a combination of theories may yield a more comprehensive explanation. Although frequent discussion is evident in the literature regarding the influences of Attachment Theory, Social Learning/Cognitive Theory, and Media Cultivation Theory on adolescent sexual offending, and while there are merits to each theoretical perspective, coherent and reliable support for the influences of these theories has eluded previous investigations. In this study, neither the individual theoretical perspectives utilized, nor a combination of these theoretical perspectives, received substantial support with respect to explaining the sexual offence characteristics that were examined.

With respect to the use of Attachment Theory, the results of this study did not support the influence of attachment to parents on the sexual offence characteristics that were examined; neither attachment to one's mother, nor one's father, significantly predicted the number of victims, age group of victims, gender of victims, sexual intrusiveness of the sexual offences, or level of force or violence used in the offence. Media Cultivation Theory also did not receive support based on the results of this study, as none of the exposure to pornography variables were significant in predicting the sexual offence characteristics that were explored. On the other hand, there was some support for Social Learning/Cognitive Theory as conceptualized in terms of prior victimization; having experienced three or more types of abuse contributed to an increased likelihood that an adolescent sexually offended against only peers, only adults, or a combination of age groups (i.e., any combination of children, peers, and adults) as opposed to against only children. From a Social Learning/Cognitive Theory perspective, it is possible that some aspect of the prior victimization experience (i.e., having experienced three or more types of abuse) may influence victim selection; however, the results of this study do not provide sufficient

explanation in this regard. Given the limited utility of employing a single theoretical perspective in explaining adolescent sexual offence characteristics, it was proposed that a combination of these perspectives might be advantageous. However, the proposed combination of attachment to parents, history of victimization, and exposure to pornography was not supported as being predictive of the number of victims reported, the age of victims, victim gender, sexual intrusiveness, or force in sexual offences.

Although the theoretical perspectives proposed for this study did not contribute significantly in explaining the sexual offence characteristics that were explored, some of the findings of this study merit further discussion as they provide information that may be useful with respect to clinical intervention.

### ***Victimization History***

Although victimization history did not contribute significantly to a number of the specific hypotheses of this study, high rates of victimization were reported by the participants in this study and, consistent with other studies (Burton & Hedgepeth, 2002; Cooper et al, 1996; Seto & Lalumière, 2010), these findings highlight the prominence of a victimization history for adolescents who have sexually offended. In this study, 76.3% of the participants reported a history of sexual abuse, 83.1% reported having been physically abused, 92.2% reported having experienced neglect, and 78.6% reported a history of emotional abuse. The rates of victimization reported were higher than those reported in previous investigations (Burton & Hedgepeth, 2002; Cooper et al., 1996; Ryan et al., 1996; Seto & Lalumière, 2010), which may be attributed to the use of multiple sources of information in determining victimization history (i.e., combining direct response on the survey as well as CTQ scores). Consistent with findings reported by others (Burton & Hedgepeth, 2002; Prentky et al., 2000; Ryan et al., 1996; Seto & Lalumière,

2010), physical victimization rates were higher than sexual victimization rates for the participants in this study.

As has been demonstrated by other researchers (Burton & Hedgepeth, 2002; Cooper et al., 1996; Costin, 2004; Langevin, Wright, & Handy, 1989; Prentky et al., 2000; Ryan et al., 1996), the prominence of multiple forms of victimization in the histories of sexually offending adolescents was highlighted by this study, as 90% of the participants reported having experienced two or more types of abuse, and more than 80% reported having experienced three or more types of abuse. This supports previously articulated concerns regarding the impact of multiple forms of victimization both generally, and in relation to adolescent sexual offending (Finkelhor, Turner, Hamby, & Omrod, 2011; Moeller, Bachmann, & Moeller, 1993).

Of interest in this study is that having experienced three or more types of abuse predicted differences in victim age; specifically, having three or more types of abuse was related to having sexually offended against only peers, only adults, or a combination of ages, as opposed to having offended against only children. To date, researchers have not examined the relationship between multiple types of victimization and victim age; in previous studies, an association between a history of sexual abuse and sexual offences against a male child has been reported (Worling, 1995b, 1995c), as has an association between a history of sexual abuse and sexual offences against children as opposed to peers and adults (Seto & Lalumière, 2010; Worling, 1995c). Additionally, Worling (1995a) reported an association between a history of physical parental discipline and sexual offences against female peers or adults. Worling, as well as Seto and Lalumière examined individual types of abuse whereas, in this study, there was an association between having a history of multiple types of abuse and sexual offences against a combination of ages, not only children.

### *Victim and Sexual Offence Characteristics*

In this study, specific victim characteristics, such as the number of victims, age group of victims, and gender of victims were examined, as were sexual offence characteristics related to the intrusiveness and level of force in offending. Consistent among all of the hypotheses, it was proposed that increased concern with respect to these victim (i.e., more victims, more age groups, both genders) and offence characteristics (i.e., more penetration and more force or violence) would be predicted by the independent variables that were identified. Although many of the predictor variables that were identified did not emerge as important in this study, where findings were significant, the predictor variables did contribute to increased concern.

With respect to the characteristics of the victims, for example, having more victims was predicted by a longer duration of sexual offending and exposure to live sex, and having both male and female victims was predicted by a longer duration of sexual offending and increased exposure to live sex. Additionally, having offended sexually against peers, adults, or a combination of ages was predicted by a longer duration of sexual offending and having experienced three or more types of abuse. This may be of important consideration and concern as it indicates diversification in victim age group and offending against ages that might require increased use of coercion or force to gain compliance. Although some might argue that having child victims is more indicative of “deviance” in sexual interests because of the age of the children and societal prohibitions regarding sexual interactions with children, the role of opportunity must be considered in sexual offending by adolescents. For many adolescents, access to younger siblings, younger extended family members, or younger friends of the family may contribute to their choice of victim and may supersede the issue of “deviance”. Additionally, the fact that children may be more likely to comply in sexual offending may also

increase their desirability as targets, more so than the coercion or force that may be necessary with peer-aged or adult victims. Indeed, the likelihood of children to comply in sexual offences has also been suggested by Ryan et al.'s (1996) assertion that the use of force is not generally necessary to gain children's compliance. Thus, sexual offending against other age groups may, for adolescents, present particular concern because of the possible need for increased manipulation, coercion, or force in the offences. In this regard, "deviance" may, in fact, be demonstrated when an adolescent sexually offends against peer-aged or adult victims, particularly if increased coercion, threats, and/or force are involved; perhaps, based on the findings of this study, this is influenced by multiple types of victimization. Although predictors of victim selection require further investigation, overall, the findings of this study suggest that victim characteristics continue to be an important area of exploration in understanding adolescent sexual offending.

Additional information is needed to understand the various factors that contribute to offence characteristics; however, consistent with the findings of other researchers (Burton, 2003; Burton & Hedgepeth, 2002; Costin, 2004; Ryan et al., 1996), it is evident from this study that adolescents are capable of committing very intrusive and forceful sexual offences. More than 67% of the participants in this study reported having perpetrated some form of penetration (i.e., oral, vaginal, anal), and more than one quarter (27.9%) of those surveyed reported that they had employed threats or force in their sexual offending. Consistent with previous assertions by Costin (2004), the high rate of penetration reported in this study is concerning given previous research findings that the impact of victimization is affected by the intrusiveness involved (Browne & Finkelhor, 1986) and, in particular, oral, vaginal, and anal penetration (Kendall-Tackett, Williams, & Finkelhor, 1993).



### *Duration of Sexual Offending*

A longer duration of sexual offending was expected to contribute to sexual offence characteristics and, as such, was identified as a covariate in this study. Consistent with this hypothesis, the duration of sexual offending was found to be the most robust predictor of victim and sexual offence characteristics in this study. Specifically, the longer the duration of an adolescent's sexual offending, the greater the number of victims reported, the more diverse the ages of the victims, and the greater the likelihood that the adolescents offended against both males and females. On the other hand, the findings of this study do not support the notion that intrusiveness and forcefulness in sexual offences progress with time; in this study, the duration of sexual offending was not related to either sexual intrusiveness or force in offences.

With respect to the importance of duration, the findings of this study extend findings previously reported by Miranda and Corcoran (2000), who indicated that, in comparison to adolescents who had sexually offended, adults who sexually offended reported more victims, committed more penetration, and also had longer offending relationships with their victims. Miranda and Corcoran did not, however, specifically investigate the relationship between the duration of sexual offending and sexual offence characteristics and, therefore, did not report a predictive or causative relationship between these factors. Information from this study, however, suggests that the duration of sexual offending may be an important contributor to the number of victims and victim diversification in the sexual offences committed by adolescents.

Certainly, it is not surprising that a longer duration of sexual offending would be related to having more victims, to offending against more age groups, and to a greater likelihood of having both male and female victims; when more opportunity to offend is created, so is the opportunity to encounter and/or identify additional potential victims. An adolescent who

initially sexually offended against his siblings might have, as he became older, entered caregiving/babysitting relationships with other children as well. As time progressed, this adolescent would then have had more opportunities to sexually offend against additional children (and, therefore, both genders as well). Additionally, it is important to consider that, the longer an individual sexually offends, the more experienced and confident he or she may become at gaining (or forcing) compliance and avoiding detection. This may then contribute to the individual's willingness to risk offending against additional victims, which may inevitably contribute to victim diversification. For example, the adolescent who gained "experience" and confidence in initially sexually offending against a younger sibling or child(ren) he was babysitting, might subsequently attempt to offend against peers as well. On the other hand, an adolescent who was caught earlier in his sexual offending might not have had the time to develop the same experience and confidence in this regard, and might not have had opportunities to diversify in his choice of victims. Regardless of the manner in which it contributes, the findings of this study highlight the significance of the duration of sexual offending and underscore the need to intervene early in an adolescent's sexual offending.

### ***Exposure to Pornography***

In this study, minimal support was evident for the contribution of pornography exposure to the sexual offence characteristics that were explored. As well, contrary to findings by Leguizamo (2000) but consistent with findings by Burton et al. (2011), this study did not find significance regarding the age at which exposure to Internet pornography first occurred; whether participants reported Internet pornography exposure prior to, or after age 10, did not predict the various sexual offence characteristics explored. It is important to note that, as this study used data collected by Burton, consistency between this study and Burton et al.'s (2011) findings of

no relationship between the age at pornography exposure and sexual offence characteristics is not surprising.

On the other hand, the findings of this study do indicate that pornography exposure is common among adolescents who have sexually offended. This supports assertions by a number of researchers that exposure to Internet pornography is significant among adolescents in general (Freeman-Longo, 2000; Longo et al., 2002; Sabina et al., 2008); it has been suggested that up to 50% of children have been exposed to Internet pornography (Livingstone & Bober, 2005) and Sabina and colleagues (2008) reported that 93% of males were exposed to online pornography sometime during their adolescent years (before the age of 18 years). In this study, almost 90% of the participants reported having been exposed to some type of pornography or live sexual activity, and more than 60% indicated that they had viewed Internet pornography. Of particular concern is that 40% of the participants reported having viewed forceful adult pornography in some form (i.e., photos, movies, Internet) and more than one third reported exposure to child sexual abuse images.

Almost 30% of the participants in this study indicated that they had viewed pornography on the Internet prior to the age of 10. It is noteworthy, however, that many of the youth in this study would have been under 10 years of age prior to the considerable emergence of personal media devices. One might speculate that greater numbers of adolescents who are currently interviewed about Internet pornography exposure prior to age 10 might report such exposure than was reported by the participants in this study.

Although increased exposure to live sexual activity was significant in predicting a higher number of victims and having both male and female victims, it is questionable whether this should be perceived within the context of exposure to pornography, or if it is more reflective of an experience of sexual abuse (i.e., being encouraged or forced to watch others engaging in

sexual activity as part of the sexual abuse). Further exploration of the data revealed a correlation between exposure to live sex and sexual abuse history ( $r = .211, p = .000$ ). Thus, it is possible that, in many circumstances, exposure to live sex was not accidental, but was a specific aspect of the participant's experience of sexual abuse. In this regard, it may need to be considered as part of the adolescent's victimization experience, rather than their exposure to pornography (i.e., intentional exposure to live sex in person during abuse versus exposure to live sex acts on the Internet that is sought by the adolescent).

### ***Theoretical Explanations***

None of the theoretical perspectives utilized in this investigation received considerable convincing support; however, limited support for the use of Social Learning/Cognitive Theory is possible with respect to some of the findings. Given the findings of this study, some discussion is warranted regarding how these theoretical perspectives may be better operationalized in future research.

#### *Attachment Theory*

Although some researchers have demonstrated relationships between attachment difficulties and sexually coercive or sexual offending behaviour in adults (Marsa et al., 2004; Smallbone & Dadds, 2000; Smallbone & McCabe, 2003), in this study, attachment variables did not predict any of the sexual offence characteristics investigated. This is consistent with findings reported in a large meta-analysis conducted by Seto and Lalumière (2010), who found that family relationships, communication, and satisfaction (which included variables related to

childhood attachment) did not differentiate adolescents who committed sexual offences from those who had nonsexual offences.

Given previous attention to the difficulties and differences in conceptualizing and measuring attachment (Rice, 1990), it is important to consider the possibility that the attachment measure used in this study (i.e., the IPPA) is an insufficient measure of attachment or that a different attachment measure might have yielded different results. It is also possible that, with respect to the relationship to sexual offending, potentially important aspects within the parent-adolescent relationship were not adequately reflected by the attachment variables that were utilized in this study (i.e., overall attachment to both Mother and Father on the IPPA). For example, when considering parent-adolescent attachment, it may be that the concept of “attachment” should be broken down, with particular contributors to attachment being specifically investigated as opposed to the overall concept of attachment. Perhaps specific elements of the parent-adolescent relationship such as communication and trust – perceived contributors to overall “attachment” – should be explored individually in order to determine aspects of attachment that may be critical or influential. When investigated in combination with victimization history and pornography exposure, perhaps specific relational issues such as parent-adolescent communication and trust would be more salient in contributing to specific sexual offence characteristics. In utilizing the IPPA for this study, for example, examining the subscales of attachment (e.g., Mother-Trust, Mother-Communication, Father-Trust, Father-Communication) might have yielded different results.

The importance of attachment to peers has received increasing attention in the literature focused on both adolescents and adults, with increasing agreement that individuals demonstrate attachments to peers (Armsden & Greenberg, 1987; Rosenthal & Kobak, 2010; Weiss, 1982) as well as to parents/caregivers. It is reported that both adolescents and adults demonstrate

attachment behaviours to peers, such as seeking support and reassurance from peers and forming enduring attachment bonds with peers (Fraley & Davis, 1997; Rosenthal & Kobak, 2010; Weiss, 1982). Like attachment to parents, attachment to peers has also been found to relate to adolescent well-being. Armsden and Greenberg (1987), for example, found that quality peer attachment was related to well-being and affective functioning, inclusive of increased self-esteem and life satisfaction, and decreased depression/anxiety, resentment/alienation, and irritability/anger.

Although this study was focused on attachment to parents as the definition of attachment, it may be that attachment to peers would emerge as being of particular importance with respect to sexual offending in adolescence. Particularly given the importance and influence of peers during the identity formation stage of adolescence, it is possible that measures of attachment to peers would moderate or mediate the relationship between pornography and sexual offending characteristics. As noted previously, Miner and colleagues (2010) suggested that adolescents who sexually offend against children may be attempting to meet intimacy needs and may turn to children because of interpersonal inadequacy and a fear of rejection. Additionally, Ronis and Borduin (2007) found that, in comparison to non-delinquent youth, juvenile sexual offenders (ages 10-17) were rated as lower in emotional bonding with peers (i.e., emotional warmth and closeness with peers) and as higher in aggression toward peers. Indeed, peer-related intimacy skills and attachment to peers may be important on their own, or they may be moderating the relationship between parental attachment and sexual offending. Given research findings regarding the influence of attachment on social competence, for example, it may be that it is not the “attachment” itself, but attachment-related skills and deficits (e.g., social competence skills such as communication, intimacy, and trust) that are related to sexual offending. In utilizing the IPPA, it is possible that including the Peer Attachment Scale would

have yielded different results; consideration of a relationship between the Peer Attachment Scale and subscales (i.e., Communication, Trust, Alienation) on the IPPA and sexual offending variables might have been more reflective of suggested links between social competence and sexual offending than focusing exclusively on parental attachment.

It is also noteworthy that attachments to peers are believed to occur in the context of early attachment to caregivers (Rosenthal & Kobak, 2010), and it is posited that individuals form attachment hierarchies to accommodate their various attachment figures (Bowlby, 1969; Rosenthal & Kobak, 2010). In certain situations (e.g., emergencies, distress), individuals tend to prefer a particular attachment figure and, throughout childhood and adolescence, parents are expected to be the primary attachment figures (Rosenthal & Kobak, 2010). Although the development of emotional bonds with peers is adaptive, in adolescence, premature detachment or disengagement from parents as the primary attachment figures has been associated with vulnerability to the influence of peers, development of problem behaviours, increased risk of associating with negative peers, and increased risk of aggressive and delinquent behaviours (Dishion, Nelson, & Bullock, 2004; Dishion, Spracklen, & Skaggs, 2000; Rosenthal & Kobak, 2010; Silverberg & Steinberg, 1987). In their study of attachment hierarchies, Rosenthal and Kobak (2010) found that “the movement of friends into adolescents’ attachment hierarchies was associated with negative factors, including lower levels of parental acceptance and romantic relationships that were shorter in length” (p. 23). Rosenthal and Kobak (2010) suggested that, when adolescents form attachment bonds to friends during mid-to-late adolescence, this may be related to an attempt to compensate for “poor or nonexistent relationships with mothers, fathers, and romantic partners” (p. 23). Additionally, Rosenthal and Kobak (2010) reported an increased risk of internalizing and externalizing problems for adolescents who identified a friend as a primary, secondary, or tertiary attachment figure, and for adolescents who did not place their

father within their attachment hierarchy, or who placed their father in the quaternary position within the hierarchy. The research by Rosenthal and Kobak (2010) suggests the importance of parents as the primary attachment figures during the adolescent period and it may be important, in the context of adolescent sexual offending, to consider if peers have displaced parents in the attachment hierarchy.

It is also possible that, in order to explore the contribution or influence of attachment on sexual offending behaviour, it would be wiser to focus on detractors from attachment, such as insecure attachment, disengagement, or alienation, as opposed to the positive elements of attachment. For example, it is possible that using the Alienation scales on the IPPA, which essentially tap into the absence of attachment, might have been better suited to exploring sexual offence characteristics. As early disengagement from parents and prioritization of peers has been associated with negative outcomes for adolescents (Rosenthal & Kobak, 2010), inclusive of behaviour problems, aggression, and delinquency, perhaps assessing the adolescents' attachment hierarchies and comparing peer attachments to parental attachments would be more likely to predict sexual offence characteristics (e.g., if peer attachments are prioritized over parental attachments).

Finally, it is important to consider that although parent-adolescent attachment, as defined in this study, was not related to the sexual offence characteristics that were investigated, there may be other aspects of sexual offending behaviour that are, indeed, related to parent-adolescent attachment. For example, parent-adolescent attachment was not found to be related to the age group or gender of the victim in this study, but it might be related to the adolescent's relationship with the victim (e.g., sibling, extended family member, acquaintance, stranger) or perceived closeness of relationship with the victim. As operationalized in this study, however,



there was no support for the influence of attachment theory in explaining the sexual offences committed by the participants.

### *Social Learning/Cognitive Theory*

Although a history of victimization, inclusive of sexual victimization, is commonly identified in the histories of adolescents who sexually offend, it is well established that this history is not causative in the etiology of sexual offending (Burton et al., 2002; Hummel, Thomke, Oldenburger, & Specht, 2000; Lambie, Seymour, Lee, & Adams, 2002). For example, Seto and Lalumière (2010) noted that males represent the majority of sexual offenders, despite the fact that female children are more likely than male children to be sexually abused (Finkelhor & Ormrod, 2001). Certainly, greater numbers of sexually offending females would be expected if a history of victimization, and especially sexual victimization, was the primary causative variable in the development of sexual offending.

Consistent with previous research, the findings of this study indicate the prominence of a history of victimization for adolescents who have sexually offended, as many of the participants involved reported having experienced various type of victimization. On the basis of this study however, assertions cannot be made with respect to the relationship between victimization and sexual offending because of the lack of a comparison group (e.g., nonsexually offending adolescents). Similarly, on the basis of the findings of this study, conclusions cannot be made regarding the applicability of social learning/cognitive theory; although there may be a relationship between the victimization history and sexual offending of the participants involved, the findings of this study did not directly support the utility of the social learning/cognitive perspective in explaining this relationship.

Nevertheless, it is noteworthy that, in this study, having experienced three or more types of abuse predicted sexual offences against peers, adults, or a combination of children, peers, and adults as opposed to sexual offences only against children. As noted, if considered in the context of past findings of a relationship between a history of sexual abuse and offences against children (Worling, 1995c), the findings of this study may suggest that those who experienced multiple types of abuse (even if inclusive of sexual abuse) may be less likely to “specialize” in sexual offences against children or, conversely, may be more likely to offend against multiple age groups. Further investigations are needed, however, to specifically delineate how Social Learning/Cognitive Theory may be applicable in this regard.

In this study, the majority of the variables regarding pornography exposure also did not predict any of the sexual offence characteristics examined. From a social learning/cognitive perspective, significant links between exposure and offences were not demonstrated; however, exposure to live sex did predict the number of victims and the likelihood that an adolescent had both male and female victims. Further investigation is necessary to understand if this relationship can be explained from a Social Learning/Cognitive perspective. As well, it is important to point out that different variables related to pornography exposure (for example, time spent viewing pornography, viewing pornography alone or with others, masturbation during viewing of pornography, etc.) and different sexual offence characteristics (e.g., types of sexual acts committed; relationship to victim such as sibling, extended family member, acquaintance, or stranger; and perceived closeness of relationship with the victim) might have yielded different results. Again, further exploration of different pornography and sexual offence variables is necessary in order to elaborate on these findings.

### *Media-Cultivation Theory*

Defined in terms of exposure to pornography, there was little support for the contribution of Media Cultivation Theory to the sexual offence characteristics of the adolescents in this study. As noted previously, although exposure to live sex was significant in predicting the number of victims and victim gender, this exposure may not constitute pornography or media exposure and, rather, may actually reflect aspects of the participants' experiences of sexual abuse (making it more relevant with respect to discussions of the applicability of social learning/cognitive theory). Other variables that were more specific to media exposure, such as the age at pornography exposure or exposure to sexual interactions in movies or on the Internet, did not predict any of the sexual offence variables examined.

Although many researchers have demonstrated the impact of media violence on behaviour (Anderson et al., 2003; Ybarra et al., 2008) and many researchers have suggested that pornography use influences sexual behaviour (Becker & Hunter, 1997; Malamuth, 2003; Malamuth et al., 2000; Oddone-Paolucci et al., 1997; Wieckowski et al., 1998), a direct link between pornography exposure and sexual offending likely does not exist (Seto et al., 2001). Other variables likely moderate or mediate the impact of pornography on various aspects of the sexual offences.

It is possible that certain variables that were not selected for this study might influence the relationship between pornography exposure and sexual offending. For example, as noted in the discussion regarding the Attachment Theory perspective, perhaps communication or trust with parents, likely components of attachment to parents, should be specifically explored. Delmonico and Griffin (2008) have noted that the lack of communication about Internet use between adults and adolescents is a very problematic issue. Mishna, McLuckie, and Saini (2009) reported that many of the youth in their study were reluctant or unwilling to tell their parents

about the Internet pornography they had viewed. Mitchell et al. (2003) found that only 39% of parents were aware of their child or adolescent's unwanted exposure to Internet pornography and it is logical to assume that those adolescents who intentionally seek Internet pornography would be even less likely to disclose this to their parents. However, perhaps parents and adolescents who have more trusting and communicative relationships are more likely to discuss sexual issues and pornography exposure. It may be that adolescents who have such relationships with their parents would be more likely to disclose and discuss the pornography they viewed, whether their exposure was intentional or unintentional. This may be particularly likely in cases where parents have had open communication with their adolescents regarding sexual issues, sexual health, and sexual media (inclusive of on the Internet). By extension, it is possible that communication between adolescents and parents, whether in general, regarding sexual issues, or specific to pornography exposure, then moderates or mediates the relationship between pornography exposure and sexual offending. Perhaps this communication affects the adolescent's interpretation of the pornography and, as a result, the potential impact of the pornography. In order to understand this better, it may be important to explore this issue further by distinguishing between parent-adolescent communication in general, with respect to sexual issues/sexual health, and in regards to pornography exposure/use.

In a similar regard, perhaps social/interpersonal intimacy (i.e., with peers) would also be important to include in a study that is focused on exploring the relationship between pornography exposure and sexual offending, as skills or deficits in this regard may impact this relationship. This would support Miner and colleagues' (2010) suggestion that adolescents who sexually offend against children may have interpersonal deficits that contribute to subsequently turning to children in order to meet their intimacy needs.

Additionally, perhaps it would be important to consider the contribution of IQ, emotional intelligence, or self-concept/sense of self as moderator variables; for example, perhaps those with higher cognitive or emotional intelligence, or those with a more established sense of self, are better capable of questioning the messages conveyed by pornography, thereby minimizing the potential impact of pornography exposure on their sexual behaviour. If media is perceived to cultivate attitudes and beliefs, it is possible that cognitive and emotional intelligence levels, as well as self-concept/sense of self, influence the extent to which one is influenced by media messages and representations of behaviour (i.e., the sexual offending).

The role of emotions, specifically, may also be important as specific emotional responses to the pornography viewed may moderate the relationship between the pornography exposure and specific sexual offence characteristics. MacFadden (2005) has argued that “emotions are a critical part of learning” (p. 95) and that, “increasingly, emotions are being viewed as mediating all learning” (p. 81). He highlights the Constructivistic, Emotionally-Oriented (CEO) Model of Web-Based Instruction (MacFadden, Herie, Maiter & Dumbrill, 2005) in which web-based learners are viewed as active learners who participate in constructing their knowledge from the content with which they interact on-line. Consistent with this, adolescents who view pornography (on-line or elsewhere) likely construct meaning and knowledge from the content they view (i.e. “the learning”). In this regard, and consistent with beliefs about the well-established interplay between cognitions, emotions, and behaviours (the central tenet of Cognitive-Behavioural-Therapy), emotional responses to the pornography viewed may influence the adolescent’s cognitive interpretations of the pornography (e.g., beliefs that form about sex, relationships, the relationship between sex and violence, etc.) and these may ultimately impact aspects of the adolescent’s sexual offending (i.e., their behaviours).

Finally, as identified with respect to the utility of attachment theory, it is possible that there are other aspects of sexual offending behaviour that are more influenced by exposure to pornography, such as the types of acts committed. For example, perhaps adolescents are more likely to commit the types of sexual acts to which they have been exposed in sexual media.

Based on the findings of this study, Media Cultivation Theory has little applicability to the sexual offence characteristics that were explored; however, attention to some of the issues highlighted may provide different results in future investigations. In discussing adolescent sexual offending, it may be important to consider if Media Cultivation Theory is really a distinct theory, or if it is really a component of Social Learning/Cognitive Theory. Although the focus of Media Cultivation Theory is on the impact of the media, it overlaps considerably with Social Learning/Cognitive Theory in that it involves integration of learning from role models, values, and scripts represented in the media. Attempts to describe sexual offending behaviour from uniquely from a Media Cultivation Theory perspective may be misleading without highlighting the social learning elements that are prominent in this theory.

### *The Importance of Integrating Theoretical Perspectives and Additional Theoretical Considerations*

In conceptualizing this study, an integration of several theoretical perspectives (i.e., Attachment Theory, Social Learning/Cognitive Theory, and Media Cultivation Theory) was proposed. Although a focus on the relationship between pornography exposure and sexual offending characteristics was of particular interest, it was hypothesized that additional variables related to attachment and victimization history might influence this relationship. In this study, little support was obtained for any of the theories proposed, highlighting the ongoing need for development and elaboration of theoretical explanations and ideas.

Consideration of additional theoretical perspectives is always important. For example, to date, there has been little focus on identifying protective factors or processes with respect to the onset of sexual aggression (Tharp et al., 2013) and adolescent sexual recidivism (Worling, 2013), and Resilience Theory may provide information regarding such protective factors and processes (see Ungar, 2005; Ungar, Brown, Liebenberg, Cheung, & Levine, 2008). Evidently, as is true in many fields, there are more questions than answers in this field (Owens, Behun, Manning, & Reid, 2012).

### *Clinical Implications*

Although no research study should be considered in isolation, and clinical best-practices should be based upon an integration of information, a number of clinical suggestions can be made based on the findings of the present study.

The high rates of victimization identified by the adolescents in this study, and the consistency of this finding with previous investigations of adolescents who have sexually offended (Awad et al., 1984; Borduin et al., 1990; Center for Sex Offender Management (CSOM), 1999; Becker & Hunter, 1997; Seto & Lalumière, 2010), highlight the need to consider the relationship between prior victimization and subsequent sexual offending. Although future sexual offending cannot and must not be presumed for victimized individuals (sexual or otherwise), it cannot be overlooked that male adolescents who have sexually offended repeatedly report higher levels of victimization than nonoffending and nonsexually offending adolescents. Although it will be critical to ensure that victimized children are not labeled as potential, likely, or inevitable “sexual offenders” (Way, 2002), prevention of potential future sexual offending by specifically addressing the victimization histories of children and adolescents should also be considered for all children and adolescents who report a history of victimization (Bentovim,

2002). From a clinical perspective, addressing issues related to sexual behaviour rules, issues of consent, and the impact of victimization on others, is recommended with all victimized children and adolescents, including nonabusive children and adolescents; however, philosophically, this should be approached from the perspective of the victimized individual's experience of victimization, sexual safety, and assertiveness training, as opposed to being from the perspective of "preventative sexual offence-specific counselling" for a child or adolescent who may never sexually offend in the future. On a practical level, this would involve teaching the child from the perspective of what happened to him/her as opposed to how he/she impacted others and what he/she should not or cannot do to others (which may be an approach taken with those who have sexually abused others). This may seem like semantics; however, the clinical approach taken can influence the child's internalization or externalization of blame (e.g., "who is not allowed to touch you on your body?" or "what are some of the touching rules?" versus "who are you not allowed to touch?" or "where are you not allowed to touch others on their body?").

Consistent with suggestions made by others (Bentovim, 2002; Costin, 2004; Jonson-Reid & Way, 2001), identifying, exploring, and addressing multiple forms of victimization should also be a focus of assessment and treatment for children and adolescents who have experienced abuse. As experiencing three or more types of victimization (i.e., not just sexual victimization) was related to specific sexual offence characteristics in this study, focusing exclusively on a sexual abuse history in the assessment and treatment of victimized children and adolescents is not supported. Although the specific impact of multiple forms of victimization may be unclear with respect to adolescent sexual offending, the experience of multiple forms of victimization repeatedly emerges as salient in some respect and lends support to the consideration of a multiple or cumulative risk model in exploring adolescent sexual offending (Costin, 2004). Way (2002) has pointed out that "When we ask, we will hear" (p.50), and has highlighted the need to frame



questions in a manner that describes as opposed to only labels the abusive experience. This promotes clinicians' uses of open-ended questioning (e.g., "How old were you the first time someone much older touched you in a sexual way?") rather than closed-ended questioning (e.g., "Have you been sexually abused?"). As well, ensuring that a child or adolescent has the opportunity to address all prior types of victimization in counselling may be particularly important with respect to resolution of the victimization and possible prevention of future sexual offending, or specific aspects of future sexual offending.

Treatment for adolescents who have sexually offended is not a regimented process, and questions often arise for clinicians regarding which issues to address first. Particularly with respect to those adolescents who have also experienced victimization, clinicians may question if they should start with treatment for the victimization or the sexual offending. This may also pose ethical or moral dilemmas for some, as the sequence of topics in treatment may give messages regarding the clinician's view of the importance of the issues. Commencing treatment with a focus on the victimization validates the significance of that experience for the adolescent, but may convey an inadvertent belief that the victimization is justification for the sexual offending. On the other hand, commencing treatment with a focus on the sexual offending may suggest that the clinician views the victimization as unimportant, or that the adolescent is accountable for his/her behaviour but his/her perpetrator is not. Given the potential importance of the duration of sexual offending identified in this study, for some adolescents, interrupting the duration of the sexual offending by addressing treatment issues related to the sexual offending may be critical to preventing an increase in the number of victims. However, determining the sequence of topics to be explored in treatment should be based on the adolescent's unique needs and risks; in some cases, the sexual offending may be addressed first and, in other cases, the

adolescent's own victimization may be addressed first. In other circumstances, both the adolescent's victimization and offending may be addressed concurrently.

With respect to the duration of sexual offending, this study did not support the notion that intrusiveness in sexual offending progresses with time. Given the intrusive nature of the sexual offences reported in this study and the finding that adolescents are capable of committing very intrusive sexual offences early in their sexual offending (i.e., early in their overall sexual offending or early in their sexual offending against specific victims), assessments and treatment should explore the intrusiveness of the sexual offending that occurred. When initial details regarding the sexual offending suggest a "one-time" incident or less intrusive acts having been committed, further exploration may be warranted in order to understand what really occurred. For the adolescent who sexually offended, understanding the intrusiveness and level of force in the sexual offending may be important with respect to treatment issues such as discussions about the impact on the victim, gaining knowledge of the adolescent's sexual fantasies (e.g., if related to memories of the sexual offending), and determining risk of sexual reoffending. For the victimized child or adolescent, understanding the sexual intrusiveness or level of force involved may be related to treatment issues such as the extent of the impact, shame, and feelings of responsibility. Initial disclosures by both victims and adolescents who sexually offended may not be complete for various reasons (e.g., shame, fear, etc.); however, it should be considered that the sexual offending that occurred could have been more intrusive than initially reported.

Best practices with respect to adolescent sexual offending suggest the importance of a comprehensive approach to assessment and treatment (ATSA, 2005; CSOM, 2007; Smith, Wampler, Jones, & Reifman, 2005; Veneziano & Veneziano, 2002; Worling & Curwen, 2001; Worling & Langstrom, 2003, 2006). The findings of this study are consistent with this recommendation, as it is likely that multiple factors contribute to the complexity of sexual

offence characteristics. Therefore, assessment and treatment for adolescents who have sexually offended should address multiple factors and possible contributors, and should not focus, exclusively, on the sexual offending itself. This would be important not only from the perspective of adhering to best practices, but with respect to preventing continued sexual offending and fostering improved health and functioning for the adolescent in general.

### **Societal and Policy Implications**

A number of societal and policy implications are suggested by the findings of this study. In addition to the need to focus on prevention of sexual offending, the salience of the duration of sexual offending in this study highlights the importance of early identification and intervention in adolescent sexual offending once the sexual offending has commenced. This also highlights the need for competent and comprehensive investigation and assessment of the sexual offending, in order to determine, as accurately as possible, the true duration of the adolescent's sexual offending. Hasty assumptions or acceptance that the first time caught constitutes the first sexual offending must be avoided, as should be any notion that the first incident of sexual offending may not be so serious. As well, simple "warnings" regarding continued sexual offending may not be sufficient in limiting the duration of an adolescent's sexual offending. Rather, early and comprehensive intervention regarding the sexual offending may be of critical importance with respect to reducing the number of potential victims, intervening in ongoing sexual offending against established victims, and preventing sexual offending against additional victims.

On a practical level, this suggests the need for comprehensive investigations by police when adolescent sexual offending has been alleged. At times, investigation decisions may be made with respect to the current incident, in the absence of information about past incidents or

without information regarding additional potential victims. Information from more comprehensive investigations may prevent police from issuing simple “warnings” to adolescents who are perceived to have offended sexually for the first time, or to direct adolescents toward extrajudicial sanctions when, in fact, their sexual offending is more extensive than it appears at first glance. Of course, this raises the need for funding support as more comprehensive police investigations in this regard would require increased funds. As well, if more information becomes known through more comprehensive police investigations, and more adolescents are referred for assessment and treatment, funding implications arise again with respect to the need to service more adolescents and families. Furthermore, the need for coordination between the various systems involved (i.e., police, child protection, judicial, clinical) is highlighted. For example, professionals within the various systems may hold information that is relevant to the duration of an adolescent’s sexual offending. Indeed, a provincial strategy regarding adolescent sexual offending is merited, whereby specific protocols outline the systems’ responses to allegations; however, as Costin, Schuler, and Curwen have previously argued (2011), integrated and coordinated responses by the systems involved are currently lacking, and this is likely impacted, at least in part, by limited funds for focusing on this issue.

Although the age at first pornography exposure was not related to the sexual offence characteristics explored, the high rates of exposure to Internet pornography suggest the importance of addressing this experience with children and adolescents. Both in clinical practice and on a broader scale (e.g., at home, in educational settings), adults should be communicating with children and adolescents about their Internet use and exposure, both accidental and intentional. Given the extent of Internet and technology influence on children and adolescents, as well as the extent to which technology is now used in schools, Internet safety and exposure to sexual media should become integral aspects of technology education within schools. Ideally,

children should be taught at a very young age, and on an ongoing basis, how to critically examine and question Internet content and make choices regarding Internet use (Delmonico & Griffin, 2008), and parents, caregivers, and educators should be educated and encouraged regarding initiating these conversations with children and adolescents. Educational settings should be encouraged to develop curricula that address Internet safety and critical analysis of Internet content, and sexual health classes should address the messages gleaned from sexualized media. Mishna et al. (2009) reported that children and youth who were aware of online risks were more afraid to disclose their exposure to cyber abuse (i.e., bullying, stalking, sexual solicitation, exposure to pornography) for fear of punishment by their parents and/or the law. Thus, adults should encourage and support children and adolescents to discuss both unwanted and intentional exposure, and to avoid immediately imposing consequences (e.g., removal of Internet privileges) that may prevent their disclosures (Mishna et al., 2009). Perhaps a promise to listen and discuss should be promoted, similar to the promise many parents make to pick up their adolescents without questions if they need a ride home after drinking alcohol. Funding that is specifically directed at development of such education programs is needed. Additionally, given the perspective of many that sexual-related topics are “taboo”, parents and special-interest groups will need to consider the importance of supporting and funding education regarding such topics within school settings. Of particular importance will be the need to train educators and professionals involved with children and youth regarding how to communicate about pornography exposure and its impact.

The need to provide (or make available) clinical assessment and treatment services to all children and adolescents who have experienced abuse, and especially multiple types of abuse, is highlighted. Research indicates that many victims of abuse hesitate to, or never, disclose their abuse (DeVoe & Faller, 1999; Finkelhor, Hotelling, Lewis, & Smith, 1990; Hébert et al., 2009;

Mishna et al., 2009; Smith et al., 2000). Additionally, many victims may not seek clinical services and it is possible that many who do disclose are not offered clinical services or directed to seek clinical supports. For example, many children who present as asymptomatic but who would actually benefit from clinical services, remain undetected and may not be offered such services. Additionally, many children and adolescents are hesitant to talk about the abuse they experienced and therapists may be reluctant to encourage them to do so for fear of somehow retraumatizing them. At other times, the expense of pursuing clinical assessment and treatment prevents accessing such services. Given established findings that some victimized children and adolescents will subsequently offend sexually, as well as potentially experience a number of other immediate- and long- term consequences, it is recommended that all child and adolescent victims of abuse be encouraged to engage in clinical assessments to determine if treatment is recommended. Minimally, all children, adolescents, and families who have experienced abuse should be advised of the availability of clinical services. Naturally, providing this type of service on such a large scale would require significant policy directives and funding devoted to this issue.

Although our understanding of the development and dynamics of adolescent sexual offending continues to evolve, many questions remain unanswered (Owens et al., 2012), pointing to the need for ongoing research in this regard. However, research requires funding, and funding is only made available when an issue is prioritized. Of particular importance is that many clinicians often hold considerable experience and expertise to address many of the issues explored in this study (e.g., victimization, adolescent sexual offending, exposure to sexually explicit media, etc.); however, clinicians often do not initiate treatment studies because of time constraints and a lack of financial support in doing so. Those in research and academic positions may have better access to funding; however, they may also lack a detailed understanding of

potentially important clinical issues. Additionally, without sufficient funding, individuals in research and academic positions may have difficulty accessing participants. Establishment of funding to research the issue of adolescent sexual offending is imperative, as is the need to provide funds for clinicians to actively and regularly participate in the development of research studies. This would also involve educating society regarding the importance of such studies, as funders often fund topics that are considered to be of importance to citizens.

### ***Limitations and Directions for Future Research***

Although information within the field of adolescent sexual offending continues to develop, and explorations of the impact of pornography are increasing, the research in this regard remains limited. The generalizability of the present study is influenced by a number of limitations which can inform future explorations of adolescents who have sexually offended, as well as theoretical interpretations utilized in such investigations.

As the accessibility and content of Internet pornography evolves so rapidly, it is important to recognize the difficulty for researchers in keeping pace; published findings are frequently based on data that were collected several years prior and, by the time findings have been published, accessibility and content may have already evolved. Therefore, although relationships between pornography exposure and sexual offending may not emerge in certain investigations, it is important to consider that relationships may still exist and that accurate measurement is a complicated and evolving issue.

The inconsistency in terminology, definitions, and operationalization of variables merits discussion. In the field of adolescent sexual offending, there are varied definitions of critical terms and, in many cases, specific definitions of terms may not be provided in published material. Fortune and Lambie (2006) highlighted this issue with respect to the term

“recidivism”, which is of considerable interest in adolescent sexual offending. Of importance to this study, for example, are terms such as “adolescent” or “juvenile”, “pornography”, and “attachment”, all of which have numerous definitions in the literature. In some studies, for example, “juveniles” may include children as young as 7 years of age but readers may understand the terms “juvenile” and “adolescent” to be interchangeable. In addition to identifying the age of participants, it is recommended that ambiguous terms such as “juveniles” be avoided in future research, and that clearer terms such as “children”, “adolescents”, or “teenagers” be utilized. The term “pornography” may be used in the literature to refer to any sexualized media, display of sexual organs, graphic depictions of sexual interactions, sexual material that depicts degradation, or depictions of sexual violence. For the purpose of this study, Hunt’s (1993) definition of pornography as the “explicit depiction of sexual organs and sexual practices with the aim of arousing sexual feelings” (p. 173) was adopted from a theoretical or literary perspective; however, this may not be consistent with the definitions utilized in other studies and the media considered pornographic by the participants in this study. Of course, this limits the generalizability of findings among studies.

As noted previously, the concept of “attachment” has various definitions and is operationalized differently among research studies (Rice, 1990). In some studies, “attachment” may refer only to the period of infancy whereas, in other studies, attachment may be explored from a lifespan approach. In future research exploring issues related to sexual offending, it will be important to clarify the definition of “attachment”. The lifespan approach to attachment, which considers attachment relationships in adolescence, may be of particular relevance with respect to adolescent sexual offending; however, it may be that attachment derivatives/sequelae related to social competence are of particular importance (e.g., intimacy in relationships with parents and peers, having multiple friendships versus reliance on a single peer, and involvement



in activities with others). Certainly, increased agreement within the field with respect to critical definitions would help to integrate findings from various studies and advance explorations regarding adolescent sexual offending.

In light of the importance of parent-child and parent-adolescent attachment that has been demonstrated in previous research (Armsden & Greenberg, 1987; Rice, 1990; Rosenthal & Kobak, 2010), this study was focused on a parent-adolescent definition of attachment. However, this may be a limited definition of attachment with respect to adolescents who have sexually offended. As indicated previously, attention to adolescents' attachment hierarchies and examining not only the quality and components of attachment relationships with parents, but also if peers have replaced parents in attachment priority, may be of particular importance in future studies. For example, while intimacy with peers and social competence may be important during adolescence, it may also be critical that the relationships with peers not supersede relationships with parents during this stage of development. Based on findings by Rosenthal and Kobak (2010), it may be that considering attachment to parents, attachment to peers, or both attachment to parents and peers in the absence of exploring the attachment hierarchy may miss this critical issue. Thus, future explorations of the relationship between attachment and adolescent sexual offending behaviours should employ an attachment hierarchy approach in defining attachment.

As is true with most research that has been focused on adolescents who sexually offend, this study is limited by the inclusion of only those adolescents who have been caught. Indeed, others have noted that differences may exist in the sexual offences committed by adolescents who have and have not been caught with respect to their sexual offending (Costin, 2004; Kaufman, Hilliker, Lathrop, Daleiden, & Rudy, 1996). Similarly, as noted by Costin (2004), sexually offending adolescents who have remained undetected and those who have been caught might have different victimization experiences; in some manner, potential differences in their

victimization experiences (e.g., modus operandi to which they were exposed) might have influenced detection for their own sexual offending. Costin (2004) suggested, for example, that through increased exposure, those adolescents with higher rates of victimization might have learned more ways of avoiding being caught. Although this would be a limitation of all studies of adolescents who have sexually offended, it is nevertheless, important, to consider the possibility that differences may exist between sexually offending adolescents who have and have not been caught.

The high victimization rates reported for the adolescents in this study underscore the importance of future researchers attempting to identify factors and/or characteristics that may predispose victimized individuals (sexual and/or otherwise) to future sexual offending. As researchers have not demonstrated a robust relationship between sexual abuse history and sexual recidivism (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2005), it has been suggested that the impact of prior sexual abuse on adolescent sexual offending may be with respect to the *onset* of the sexual offending and not continuation of the sexual offending (Seto & Lalumière, 2010; Worling & Langstrom, 2003). Consistent with this suggestion, it will be important for researchers to identify specific abuse characteristics that may place victimized children at increased risk of *initiating* future sexual offending, in order to intervene preventatively (i.e., primary prevention) regarding these issues.

Although this study's finding of the potential importance of exposure to live sex is interesting, a limitation exists with respect to the lack of clarity regarding the nature of this exposure. As is evident from this study, exposure to live sex may be considered within the context of exposure to pornography (as it was originally defined for this study) but, if the content and context of this exposure are unclear, significant questions and potential for confounding results emerge. Therefore, the results of this study suggest the importance of

looking further at the issue of exposure to live sex and, in particular, definitions in this regard. Of potential importance for future research in this regard is determining if an adolescent viewed “live sex” by web-camera on the Internet, or directly in front of them, and if the exposure was sought out, accidental, or within the context of an experience of sexual abuse. When relationships are discovered in future studies, having clarification of these issues will help to understand if it is the exposure itself, the content or context of the exposure, or primarily the sexual abuse itself that are contributing to sexual offending characteristics. Indeed, with respect to the potential impact on future sexual offending, self-initiated viewing of individuals engaging in live sex on the Internet may be very different than being forced to watch one’s parent sexually abusing one’s sibling, for example.

Based on the findings of this study, the presence of a sexual abuse history is not sufficient in explaining various sexual offence characteristics. However, understanding the characteristics of the sexual victimization (e.g., sexual acts experienced, intrusiveness, level of force, duration, relationship to offender, etc.) may be important to understanding why some victimized individuals subsequently offend sexually and most others do not. Therefore, future research should attempt to understand if/which specific sexual victimization characteristics contribute to the development of sexual offending.

Another limitation of this study is the use of secondary data. Secondary data analysis is a convenient method for conducting research as the data already exist and, frequently, there is access to existing information from many participants. Additionally, primary data analysis can be both time-consuming and costly. However, there are a number of limitations to secondary data analysis that merit discussion with respect to this study.

Firstly, it is important to recognize that the data for this study were collected by another researcher for the purpose of his research interests. While the data provided considerable

information for this study, definitions of variables for this study were dependent upon the data that existed and the manner in which the data were collected. For example, definitions of attachment in this study were reliant upon information collected from the Inventory of Parent and Peer Attachment; however, other measures or specific questions might have been utilized for collecting information regarding attachment had data been collected specifically for this study. Similarly, information regarding exposure to sexualized media was collected with specific questions in the survey that was administered in the original data collection; however, these were subject to interpretation and wording might have been different if the data were collected specifically for this study. For example, a participant was asked how often they viewed “adults having sex in movies”. Of course, such exposure could have involved either obvious pornography or movies that included depictions of some sexual intercourse but that were not, necessarily, pornography as typically defined. In this study, any indication of such exposure was considered to be exposure to pornography; however, stricter definitions of pornography might have yielded different results. A second limitation with respect to the use of secondary data analysis is that the data provided were entirely dependent upon self-report; corroborating information (e.g., information from multiple informants) might have altered (and perhaps, enhanced) knowledge about abuse history, exposure to pornography, and sexual offence characteristics.

It is important to consider that administration of questionnaires regarding victimization and sexual offending is retrospective in nature and relies upon accurate self-reporting by the adolescents. The adolescents who completed the survey used in this study may have experienced poor memory or recall bias in responding, or they may have consciously opted to deny or minimize certain information. Not surprisingly, the issue of self-reporting has been addressed in a number of writings and research regarding adolescent sexual offending, with inconsistent

results (Schuler & Costin, 2011; Smith et al., 2005; Worling, 2006; Zolondek et al., 2001). Zolondek and colleagues (2001), for example, found that participants who rated high on a social desirability measure (i.e., were more likely to demonstrate a socially desirable response style) also reported fewer paraphilic behaviours. Conversely, other researchers have found that self-reports by adolescents can provide useful and reliable information (Smith et al., 2005; Worling, 2006). Smith et al. (2005), for example, found that self-report instruments were useful in distinguishing between risk levels of adolescents who had sexually offended. Worling (2006) found that self-reported arousal by male adolescents who had sexually offended corresponded with their choice of victims; specifically, this distinguished those adolescents who assaulted a child from those who assaulted peers or adults, and those with male child victims from those who did not have male child victims. Worling highlighted the growing evidence that valuable information regarding adolescents' sexual interests can be obtained by structured, self-reported methodologies. Consistent with this, Fortune and Lambie (2006) have suggested that anonymous self-reports by adolescents who have sexually offended may provide information about offences that have not been disclosed or detected by authorities.

In fact, it is important to consider that both underreporting and overreporting of information are possible and, although it may be assumed that victimization history would be overreported and offence information underreported, this is not, necessarily, the case. In fact, some researchers (Finkelhor et al., 1990; Watkins & Bentovim, 1992) have asserted that males are less likely to disclose their experiences of sexual victimization, and other researchers (see reviews by Way, 2002 and Worling, 1995c) have reported that lower victimization rates (including sexual victimization) have been reported in many studies in which data were collected at intake, during court proceedings, or pretreatment.

This study might also have been limited by the distribution of the data, which prevented definition of some of the variables (e.g., number of victims, abuse history) as was originally proposed for this study. It is quite possible that the way the variables were defined impacted the findings of the study. Similarly, there were many characteristics of sexual offending that were not measured (e.g., relationship to victim, planning involved, arousal to victim, etc.) and that might be important to explore in the context of the theoretical perspectives and independent variables utilized in this study.

As identified earlier, it may also be important to consider the role of emotions in future investigations. As MacFadden (2005) has highlighted, emotions are particularly important in learning and they have long been believed to influence both thinking and behaviour. By extension, emotional responses to the pornography viewed may moderate or mediate the relationship between an adolescent's exposure to pornography and sexual offending. Therefore, future investigations of the relationship between pornography and sexual offending should include not just the content of the pornography viewed, but the adolescent's emotional responses to the pornography viewed.

In general, the findings of this study indicate the need for continued explorations regarding adolescent sexual offending and, specifically, the contribution of factors such as victimization history, attachment to/intimacy with others, and exposure to pornography to sexual offence characteristics. As direct relationships appear not to be the norm in published findings, the impact of moderator or mediating variables (e.g., specific components of adolescent-parent attachment, attachment hierarchies, social competence, etc.) is of particular interest with respect to explanations of adolescent sexual offending; however, both determining and operationalizing these moderator or mediating variables is complex. Likely, a combination of factors is of importance in explanations of the onset of sexual offending, specific characteristics of the sexual

offending (e.g., number of victims, victim age, victim gender, force, intrusiveness), and sexual recidivism, among other issues. Continued exploration of the relationships and interactions of variables is likely to provide the most comprehensive information which, in turn, will best inform clinical practices.

### **Conclusion**

This study was conducted to explore the relationship between victimization history, attachment to parents, pornography exposure/use, and characteristics of the sexual offences committed by male adolescents. It was hypothesized that, the poorer the attachment to parents, the greater number of abuses experienced, and the more exposure to pornography, the more likely an adolescent would be to have had more victims, have offended against more age groups, have both male and female victims, have committed penetration in his sexual offences, and been forceful or violent in his sexual offences. Attachment Theory, Social Learning/Cognitive Theory, and Media Cultivation Theory were used to provide a context for the hypotheses; however, the proposed theories were not supported by the findings.

Predictor variables that emerged as important in this study were the duration of the sexual offending, having experienced three or more types of abuse, and exposure to live sex. In this study, more exposure to live sex and a longer duration of sexual offending predicted more reported victims; having experienced three or more types of abuse and having sexually offended for longer predicted diversification in age of the victims/lack of focus on child victims; and increased duration of sexual offending and increased exposure to live sex predicted sexual offending against both males and females, as opposed to only males or only females. Although minimal support for the hypotheses was found, the findings point to high rates of victimization, the importance of multiple experiences of abuse, significant rates of exposure to pornography,

and the capacity to commit very intrusive and forceful sexual offences for the adolescents involved in this study.

Based on the findings of this study, it is suggested that treatment efforts should focus on intervening promptly and reducing the duration of an adolescent's sexual offending. As well, intervention for victims of all types of abuse is highlighted, inclusive of the recommendation that treatment explore issues related to appropriate sexual behaviour with the hope of preventing future sexual offending by those victims who might be at risk of future sexual offences. Future directions for research are suggested, including the need to identify characteristics that might predispose certain victimized individuals to develop sexual offending behaviours in the future. The need for consistency in definitions is also identified, as is the need to clarify the context of adolescents' exposure to live sex (i.e., intentional/self-initiated, accidental, part of sexual victimization). In general, further explorations are needed regarding applicable theoretical approaches, as the proposed theories were not supported, as well as the various factors, and interactions among factors, that contribute to the characteristics of sexual offences committed by male adolescents.



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