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Perceptions of treating professionals : a pilot study conducted with employees of the Edith Nourse Rogers Memorial Veterans Hospital in Bedford, MA

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Amanda Slatus
Antisociality, Childhood Sexual
Trauma, and Cognitive Distortions
Surprisingly Not Predictive of
Deviant Sexual Arousal in Male Sex
Offenders Who Have Abused
Children

Abstract

In this study I examined potential predictive factors of deviant arousal. Variables were chosen based on the relationship shown in previous literature between variables and sex offending and recidivism. The sample for this analysis consisted of 100 incarcerated sex offenders who completed the Life History Survey (Burton, 2003). This is a subset of the sample surveyed by Burton (2003).

The hypotheses of this study were that antisociality, childhood sexual trauma, and cognitive distortions would each be predictive of deviant arousal and the interaction between the variables would be the strongest predictor of deviant arousal. No predictive relationships were found and variables were found to be unrelated to each other or deviant arousal. The one exception was a significant relationship ($p<.05$) between cognitive distortions and deviant arousal; however this was not a predictive relationship. The literature is explored and alternative explanations of results, as well as implications for research and practice are discussed.

Antisociality, Childhood Sexual Trauma, and Cognitive Distortions Surprisingly

Not Predictive of Deviant Sexual Arousal in Male Sex Offenders Who Have Abused

Children

A project based upon an independent investigation, submitted in
partial fulfillment of the requirements for the degree of Master of
Social Work.

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Chapter I

Introduction

Sexual offending is a unique subset of criminality and a large societal problem. Sexual offenders are shown to re-offend sooner than non-sexual offenders (Abel & Rouleau, 1990). As of 2008, The National Center for Missing and Exploited Children estimated that there were 673,989 registered sex offenders in the United States (Davis & Archer, 2010). Within the category of sex offenders is child molestation, defined as committing sexual acts against children. Child molestation may include extra-familial sexual abuse, incest, and pedophilia; although literature sometimes distinguishes between these categories, especially pedophilia (Davis & Archer, 2010; Firestone, Bradford, Greenberg, & Serran, 2000). Better understanding the causes of sexual abuse will allow us to make treatment for sexual offenders more effective and decrease the amount of re-offending. If we are able to understand predictive factors of sexual abuse then we may be able to begin preventative treatments as well.

One predictive factor of sexual abuse perpetrated against children is deviant arousal. Deviant arousal is defined as "enduring attractions to sexual acts that are illegal (e.g. sex with children, rape) or highly unusual" and levels of deviant arousal are found in approximately 50% of child molesters (Hanson & Murton-Bourgon, 2005, p. 1154). Deviant arousal is also significantly associated with recidivism rates of sex-offenders (Hanson & Murton-Bourgon, 2005; Haywood and Grossman, 1994). The ability to better understand deviant sexual arousal is crucial to the field of sex offender research. Current treatment and policies regarding sex offenders are insufficient to serve the means of protecting victims of sexual abuse (Maletsky &

Steinhauser, 1998; Sinclair, 1998). Gaining a better understanding of what variables predict

deviant arousal in adult sex offenders will contribute to the existing research of treatment

efficacy and related fields such as victim response to abuse and rates of offender recidivism.

Previous research has found antisociality, childhood sexual trauma, and cognitive

distortions as significant factors of sexual abuse and recidivism (Abel & Rouleau, 1990; Cortoni,

2009; Hanson & Murton-Bourgon, 2005; Marshall, W., Marshall, L., Serran, G. A., & O'Brien,.,

2009; Serin, Mailoux & Malcolm., 2001; Seto, 2008). Many theorists postulate as to why sex

offenders offend. These theories vary from neurological interactions to social learning—victims

learn to offend (Abel & Rouleau, 1990; Burton, 2003; Hall & Hirschman, 1991; Marshall et al.,

2009; Marshall and Marshall, 2000; Seto, 2008; Stinson, Sales & Beck, 2008). Based on

previous research, the purpose of this study is to examine previously indicated factors associated

with sexual offending and explore their relationship to deviant arousal. This study asks do

antisociality, childhood sexual trauma, and cognitive distortions about sex with children and rape

predict deviant arousal in a population of adult male sex offenders who have abused children?

Chapter Two

Literature Review

Introduction

To better understand the relationship between deviant arousal and antisociality, childhood sexual trauma, and cognitive distortions the literature must be examined. In the following literature review I will explain deviant arousal, show how it is measured, examine antisociality, childhood sexual trauma, and cognitive distortions separately as each relates to sex offending, examine previous theories, and propose a multi-faceted trans-theoretical model. This model will focus on the correlations between the aforementioned variables and deviant arousal.

Deviant Arousal

The term deviant arousal refers to an individual becoming sexually aroused by deviant sexual stimuli, such as children (Cortoni, 2009). It is hypothesized many sex offenders become deviantly aroused thinking about and performing the sexual offense. Seto and Lalumière (2001) found that deviant arousal was likely in approximately half the population of sex offenders. In their sample of 1113 sex offenders, 40% showed equal or greater sexual arousal to stimuli predicting children versus adults. Deviant arousal has already been shown to be one of the strongest predictors of recidivism among adult and juvenile sex offenders (Epperson, Flowers & DeWitt, 2005; Hanson & Murton-Bourgon, 2005). However there is limited research on the predictors of deviant arousal.

Measurements of deviant arousal. Researchers present three common measurements of deviant arousal which have been shown to be valid assessments of adult deviant arousal: phallometrics such as plethysmography, length of visual reaction time when viewing deviant images, and by self-report including a comprehensive sexual behavior history (Abel et al., 2001; Abel, Huffman, Warberg, & Holland, 1998; Abel et al., 1987; Barbaree & Marshall, 1988; Quinsey, Ketsetzis,, Earls, & Karamanoukian, 1996; Seto, 2009; Seto & Lalumière, 2001). Each measurement, while valid, has some limitations. Participants have shown an ability to reduce arousal to stimuli which had previously elicited high levels of arousal and produce penile responses to non-preferred stimuli (Hall et al., 1988; Haywood & Grossman, 1994). Self-report might be influenced by the negative social climate regarding deviant arousal and potential legal sanctions (Abel et al., 1987 Haywood & Grossman, 1994; Seto, 2009).

Many studies have therefore emphasized the importance of the interviewer's conduct, the phrasing of questions to reduce denial such as "'How often do you masturbate in a typical week?'" rather than "'Do you masturbate?'", obtaining a sexual behavior history from all available sources rather than solely the participant, and maintaining the highest possible level of confidentiality (Abel et al., 1987; Seto, 2009 pp.395-396). Seto (2009) recommends that the interviewer maintain a non-judgmental stance and build rapport with the participant by first covering less sensitive material. While Abel et al. (1987) outlined several ways to protect confidentiality including selection criteria that participants were not under court order to receive evaluation or treatment, asking for only general information regarding offending behavior, encouraging participants to withhold specifics, and having participants enter and leave the building through a common entrance used by participants, researchers, staff, and people involved

in other research projects. In the present study self-report of deviant arousal was used and specific steps were taken to maintain anonymity of participants.

Antisociality

Antisociality is one piece of both antisocial personality disorder and psychopathy. Traits of antisociality are a history of rule violations, a lack of empathy for others or guilt for their deeds, grandiosity, callousness, and deceitfulness (Edens, Buffington-Vollum, Colwell, Johnson, D., & Johnson, J., 2002; Hanson & Murton-Bourgon, 2005). There is substantial research on the links between antisociality and both sexual and non-sexual crimes and it is generally measured one of three ways, the Million Clinical Multiaxial Inventory (MCMI), Minnesota Multiphasic Personality Inventory (MMPI), and Psychopathy Checklist-Revised (PCL-R). Davis and Archer (2010) performed a Meta Analysis which looked at studies using both the MCMI and MMPI; they found that studies using the MCMI overall yielded higher scores on Cluster A (Paranoia, Schizoid, Schizotypal) diagnoses than nonsexual offender comparison/control groups. MMPI findings were less consistent overall but showed a tendency for more elevated mean scores on the validity scale F than comparison groups (Davis & Archer, 2010).

Antisociality has already been determined to be one of the strongest predictors of recidivism for sex offenders (Hanson & Murton-Bourgon, 2005; Serin, Mailoux & Malcolm., 2001; Seto, 2008). In their ninety-five studies meta-analysis Hanson and Murton-Bourgon (2005) used the personality scales Hare Psychopathy Checklist and the MMPI Psychopathic deviate scales to measure antisociality and found a significant effect size of $d=.23$; second only to deviant arousal (Hanson & Murton-Bourgon, 2005). This is consistent with Serin, Malcolm, Khanna, and Barbaree (1994) study of eighty-one incarcerated adult sexual offenders. The purpose of their study was to determine the relationship between deviant arousal and

psychopathy. They found that there was a statistically significant correlation between PCL-R scores and deviant arousal (Serin et al., 1994). In a follow up study, Serin et al. (2001) found that participants with the highest rates of deviant arousal coupled with higher scores on the PCL-R re-offended sooner and more often than any other group or interaction and extrapolated that the relationship between psychopathy and deviant arousal is strongest for extrafamilial child molesters(Serin et al., 2001). Haywood and Grossman's (1994) study examined the relationship between psychopathology and reported deviant sexual interest in a population of child molesters and found results which support Serin et al.'s (2001) findings. A more recent study by Firestone et al. (2000) looked at the relationship between deviant arousal and psychopathy in incest offenders, extrafamilial child molesters and rapists. The Pearson correlation matrix showed that antisociality was only significantly correlated with deviant arousal for child molesters, although rapists showed higher levels of deviant sexual arousal to the more sexually violent indexes (RI and PAI) (Firestone et al., 2000). While there is substantial literature that links antisociality to recidivism in both sexual and non-sexual crimes, some research suggests that there is an inverse relationship between sexual offending against children and higher scores on psychopathy checklists (Seto, 2008; Harris, Rice, Hilton, Lalumière, & Quinsey , 2007; Lalumière, Harris, Quinsey, & Rice., 2005). Porter, Campbell, Woodworth, and Birt (2001) reviewed the relationship between psychopathy and sexual offending and found that the rates of psychopathy are higher in rapists than child molesters, and highest in individuals who offend against both children and adults; however this population is slower to re-offend than child molesters. Harris et al. (2007) found that psychopathic sex offenders were less likely than nonpsychopathic sex offenders to have young victims or male victims.

Harris et al.'s (2007) finding is consistent with the trend in literature that levels of antisociality are related to how the sample population is defined. Researchers have found that sex offenders classified as child molesters who commit a variety of sexual assaults/criminal acts, rapists, and perpetrators of non-sexual crimes are more likely to have higher rates of antisociality/psychopathology than child molesters who do not perpetrate against adults (Ahlmeyer , Kleinsasser, Stoner, & Rezlaff, 2003; Chantry & Craig, 1994; Cohen et al., 2002; Davis & Archer, 2010; Eher, Neuwirth, Fruehwald, & Frottier, 2003; Porter et al., 2001). When examining this research it is important to remember than most child molesters have multiple victims and histories of nonsexual offenses and often show antisocial behaviors unrelated to sexual offending (Seto, 2008). However, when isolated populations are studied child molesters are less likely to have antisocial traits than rapists. Ahlmeyer et al. (2003) looked at personality scales on the MCMI for incarcerated offenders. This study differentiated participants as rapists, child molesters, and nonsexual offenders and found that nonsexual criminals scored the highest on classic criminal personality traits such as antisociality and narcissism. This sample differed the most from child molesters who were more neurotic, affective, and socially impaired. When the rapist and child molester groups were collapsed antisocial and negativistic scales were the most elevated (Ahlmeyer et al., 2003).

Chantry and Craig (1994) used the original MCMI to study personality styles of child molesters, rapists, and non-sexually aggressive felons and found similar results to Ahlmeyer et al. (2003). Roughly half of Chantry and Craig's (1994) rapist and child molester populations had subclinical MCMI scores although compulsive and narcissistic scales were elevated. The rest of the population of child molesters were coded as either 38A2 (Dependent, Passive-Aggressive and Avoidant) or 3 12 (Dependent, Schizoid, Avoidant), with 23% accounting for the former

code and 20% accounting for the latter (Chantry & Craig, 1994). Approximately one fifth of the rapist population (16%) had a 231 code (Avoidant, Dependent, Schizoid), a slightly lower percentage than the child molesters. However, 26% of the rapist population was coded as 56A (Narcissistic, Antisocial). From these results, Chantry and Craig (1994) concluded that personality styles of sexual offenders are heterogeneous, but dependent and narcissistic-antisocial styles are more prevalent within this population. Cohen et al. (2002) studied one particular personality trait, impulsive aggressive, in a sample of twenty heterosexual pedophiles and a control group of 24 demographically matched men. The researchers defined impulsive aggressive as encompassing cluster B personality scales such as antisocial, borderline, and narcissistic pathology (Cohen et al., 2002). This definition matches Eher et al.'s (2003) description of life style impulsivity, a life style consisting of instability, antisociality, and social deviancy, similar to psychopathy. Cohen et al. (2002) found that pedophiles were better defined as "compulsive aggressive." Their acts of sexual offending were not committed to due impulsivity, but in spite of the damage to victims, pedophiles were compulsively offending (Cohen et al., 2002).

Regardless of specific measures, the literature is consistent; antisociality and deviant arousal are both strong predictors of is sexual offending and re-offending. However, there is debate as to whether the variables are related or independent of each other. In a Meta-Analysis Doren (2004) examined the relationship between sexual deviance, psychopathy (defined as having antisocial personality disorder) and recidivism. After examining the literature, Doren (2004) found his hypothesis, that psychopathy and sexual deviancy are independent of each other, to be consistent with the literature examined. Marshall et al. (2009) cite extensive literature to suggest that sex offenders are not devoid of empathy (a major trait of antisociality)

in general, but have an empathetic deficit in regards to their victims and possibly victims of other offenders.   It is possible that offenders who admit deviant interest may exaggerate symptoms of psychopathology to minimize sexual interest and responsibility for their actions (Marshall et al., 2009, Haywood & Grossman, 1994). In their study, Haywood and Grossman (1994) found that child molesters who denied sexual interest in children also minimized psychopathologic thoughts on the MMPI minimization scales, the F-K index, and the Mp scale. Porter et al. (2001) posit that psychopathy may do little to predict sexual offending in child molesters, as sexual psychopathy is related to having a diversity of victims. This variability in the literature signifies the need to explore the relationship between antisociality and psychopathy in different populations of sex offenders to better understand the relationship to both deviant arousal and as a potential risk factor of sexually offending and re-offending against children.

Childhood Sexual Trauma

Many researchers have recently reported a consistent link between a history of sexual victimization and sexually offending. Seto (2008) examined multifactorial theories of sex offending from 1984 to 2005 in order to propose a more comprehensive theory. In his analysis, Seto (2008) found that of all the variables examined, only sexual abuse history needed to be accounted for in a specific theory of sex offending (Seto, 2008). One theory that Seto (2008) reviewed was Babaree and Marshall's integrative theory which posits there are factors which lead to the development of childhood sexual trauma such as poor parent-child attachments which increase the vulnerability for children to be victims of sexual offending (Marshall & Marshall, 2000; Marshall & Barbaree, 1990). Jespersen, Lalumière, and Seto (2009) conducted a meta-analysis with seventeen studies in which they focused on the trauma histories of abusers and non-abusers to examine the sexually abused-sexual abuser hypothesis. They found that sex

offenders were significantly more likely to have been sexually abused than non-offenders; however no more likely to have been physically or emotionally abused or neglected than non-offenders (Jespersen et al., 2009). Jespersen et al. (2009) also found that sexual offenders perpetrating against children were significantly more likely to have a sexual abuse history than sexual offenders who perpetrated against adults. The researcher's findings show sexual abuse is a significant factor, but it is unclear whether the significance is contingent on childhood sexual abuse, or simply a history of sexual abuse (Jespersen et al., 2009).

One methodological question relates to the potential for over-reporting or under-reporting a history of sexual abuse (Jespersen et al., 2009; Burton, 2003). Over-reporting is possible if sex offenders want to garner sympathy from jurors, researchers, or the general public. Under-reporting of sexual abuse, as well as other kinds of abuse of children, specifically boys, is well documented in many fields including psychology and criminology (Burton, 2003; Dhawan & Marshall, 1996). Dhawan and Marshall (1996) sought to examine the potential of over-reporting bias by studying a population of incarcerated sex offenders with incarcerated non-sex offenders and found that sex offenders in general and child molesters in particular were significantly more likely to have experienced sexual abuse (Dhawan & Marshall, 1996). Despite methodological considerations of bi-directional reporting bias, Jespersen et al. (2009) found that both prospective and retrospective studies indicated a causal link between experiencing sexual abuse and later offending. Other researchers have cautioned that the causal relationship is mitigated by other factors such as specifics of the abuse like gender of the abuser, amount of force used, age at which the abuse occurred, or an unstable family environment, and insecure attachment between child and parent(s) (Burton, 2003; Dhawan & Marshall, 1996; Marshall & Marshall, 2000). More generally, additional factors such as psychopathology may be interrelated as well

(Jespersen et al., 2009). Additional research is needed to examine the links between these variables.

Cognitive Distortions

Cognitive distortions are both a common factor of sexual offending and associated with recidivism. These associations have been discussed extensively in the literature (Cortoni, 2009; Hanson & Murton-Bourgon, 2005; Marshall et al., 2009). In Abel and Rouleau's (1990) chapter on treatment for sex offenders they stipulated that cognitive distortions are developed and are one of many factors which create and maintain deviant arousal (Abel & Rouleau, 1990). Commonly endorsed cognitive distortions include believing the victim was consenting, blaming others, denying harm to the victim, believing that sex with children is acceptable behavior, or believing that societal attitudes regarding sex with children will change (Abel & Rouleau, 1990; Marshall et al., 2009). These cognitive distortions also illustrate an intersection with antisociality by showing a disregard for societal norms and a belief that rules do not apply to the individual as the thought continues "it matters little what society believes now, as those attitudes are changing" (Abel & Rouleau, 1990, p. 276). Seto (2008) examined cognitive distortions in sex offenders and offers two possible interpretations. One is that positive attitudes and beliefs about sex with children are part of a schema; believing that a friendly gesture from a child is an invitation for sexual contact (Seto, 2008). The other explanation is that these cognitive distortions are really a form of resolving cognitive dissonance—believing that it is ok or right to have sex with children helps the sexually offending minimize responsibility and reduce unpleasant feelings of remorse or guilt (Marshall et al., 2009, Seto, 2008). Cognitive distortions may protect sex offenders from feeling empathy for their victims, which then helps them complete the act of abuse (Cortoni, 2009; Marshall et al., 2009).

Trans-Theoretical Model

The proposed theoretical model of this paper is multivariable trans-theoretical in nature. This author hypothesizes that the most comprehensive way to conceptualize this topic is by looking at predictive factors of deviant arousal. Previous theories on sex offending behaviors have focused on cognitions, the cycle of sexual abuse, or personality, and arousal (Burton, 2003, Marshall and Marshall, 2000; Seto, 2008; Stinson et al., 2008). Other theories incorporate a combination of those factors (Hall & Hirschman, 1991; Marshall et al., 2009; Stinson et al., 2008). However, each has its limitations. What is needed is to distill whether these factors have a causal relationship to deviant arousal or merely interact with it as previous research has found. These theories examine cognitive distortions, childhood sexual trauma, and antisociality separately and in combination as they apply to sex offending; yet they do not cover the question this paper seeks to answer: Are cognitive distortions, childhood sexual trauma, and antisociality predictors of deviant arousal in adult sex offenders who have abused children?

Chapter 3

Methods

Research Design

This is a quantitative exploratory study, seeking to understand possible correlations between factors associated with sexual offending and deviant arousal. This study is based on a Life History Survey which was created in conjunction with sexual abusers who have completed treatment with Wayne Bowers and anonymous colleagues at the Sexual Abuse Treatment Alliance. The data collected through the Life History Survey (Burton, 2003) was originally used to better understand the relationship between histories of sexual abuse, how offenders dealt with that abuse, and the criminal behaviors of the offender and the prevention of crime and treatment of people who sexually abuse. The University of Michigan served as the Institutional Review Board for the initial study. Within the survey there is special attention paid to histories of abuse, age and frequency that offenders watch pornography, type of abuse offenders committed, and their thoughts/cognitions about the abuse. The hypotheses of this study are as follows: Antisociality will be positively correlated with deviant arousal, childhood sexual trauma will be positively correlated with deviant arousal, cognitive distortions about sex with children and rape will be positively correlated with deviant arousal, and that antisociality, a history of sexual trauma, and cognitive distortions will predict deviant arousal.

Participants

  The sample in this study consists of 109 participants who have sexually abused children. Four responses were invalidated based on the Millon, Davis, and Millon (1997) MCMI III invalidity scales from the MCMI manual (Burton & Booxbaum, 2010). Of the 105 participants, the sample was mostly Caucasian 88.6% (*n*=93), 3.8% (*n*=4) identified as Black, and 5.8% (*n*=6) identified as "Other," including American Indian and Hispanic, with 1.9% (*n*=2) not responding to this question (Burton & Booxbaum, 2010). In terms of educational level, sixty seven percent (*n*=71) of sample participants reported having completed high school, 33.3% (*n*=35) had a Graduate Equivalency Diploma (GED), 26.7% (*n*=28) had an associate's degree, 26.7% (*n*=28) had a bachelor's degree, 12.4% (*n*=13) had a masters degree or doctorate (Burton & Booxbaum, 2010).

  The majority of the sample (67.6%, *n*=71) grew up in a two-parent home compared to 17.1% (*n*=18) who were raised by a single mother. The remaining 15.3% of the sample identified as being raised by their mother and a partner (3.8%, *n*=4), a grandparent (2.9%, *n*=3), in a foster home (2.9%, *n*=2), by a single father (1.9%, *n*=2), or by another relative (1.9%, *n*=2). 1.9% (*n*=2) of the sample did not answer the question. The majority of the sample also indicated prior or current prison incarceration (87% and 79% respectively).

  Participants were also asked about the characteristics of their victims, including gender and age group. Responses indicated a total of 1,720 victims with a likelihood of victim types 'cross-over'. The average number of victims per participant was 16.3, with a range of 1-122 victims (*SD*=25.08). When the data was aggregated 19 different combinations of gender and age groups were found. A little more than a quarter of the sample (26.67%, *n*=28) of the respondents indicated they abused only one gender/age group.

Instruments

The Life History Survey (Burton, 2003) consists of quantitative and qualitative questions. The first section of the survey contains a comprehensive demographic form utilized in previous studies (Burton, 2003; Burton, Leibowitz, Booxbaum, & Howard, 2010; Burton, Miller, & Shill, 2002) including questions about family type, education history, and criminal behaviors.

Specific sexual crimes/sexually aggressive behavior over a life-span were measured with the Self Report Sexual Aggression Scale (SERAS); a modification of the Sexual Abuse Exposure Questionnaire (Burton, 2000). Burton and Fleming (1998) created this scale to measure sexually aggressive behaviors over a life span (Burton, 2000). This multi-item inventory is a check-list of sexual acts and relationships. Many of the items begin with the question "Have you ever conned or forced someone to?" to assess the degree of coercion of each act. It has an eight week test-retest reliability of r=.96 for a small sample (Burton & Booxbaum, 2010; Burton et. al, 2002; Burton, 2000).

Millon, Davis and Millon's (1997) MCMI III was used to assess anti-social personality traits in participants. The MCMI III is a 175 item true/false scale that measures eleven personality patterns, three personality pathologies and several clinical syndromes (Millon, T.., Millon, C., Davis, & Grossman, 1997, p.4). The MCMI III contains internal and external validity, each item on the scale is evaluated and any item that does not meet all measures of validity is dropped or re-examined. The final scale is generalizable as each item satisfies multiple stages of validity (Millon et al., 2009). The decision to use the MCMI III over the PCL-R was methodical—the PCL-R requires 4-5 hours per person to complete and would invalidate the steps taken to maintain anonymity of the population. In contrast, the MCMI III is written at an 8th grade reading level, takes approximately 20-30 minutes to fill out, and can be self-

administered (Millon et al., 2009). In this study only the Antisocial scale was used with sound internal reliability with Cronbach's alpha = .91.

History of sexual trauma was measured by the Childhood Trauma Questionnaire (CTQ) (Bernstein & Fink, 1998). This brief, non-evasive 37-item scale assesses physical, sexual, and emotional abuse and physical or emotional neglect and provides one score representing the total exposure to childhood maltreatment. The scale is written at a sixth grade level, which makes it accessible for adolescents and adults (Furlong, Pavelski, & Sandoval, 2010). Each question uses a five point Likert scale (0-4), with higher scores indicating a greater degree of maltreatment and 0 indicating no agreement with the question. The CTQ is shown to be a reliable scale with the sexual abuse sub scale having an alpha of .93-.95 (Furlong et al., 2010). The CTQ is also correlated with sexual and physical abuse ratings (correlated .50-.75). The CTQ includes a three-item Minimization/Denial Scale which functions as a social desirability scale, to counter against underreporting of maltreatment (Furlong et al., 2010). Scale internal reliability was sound in this study with Cronbach's alpha score of .86.

The Bumby Child Molest and Rape Scale was used to measure cognitive distortions. This scale involves two measures of cognitive distortions related to (1) child molestation and (2) rape. The Molest scale consists of 38 items derived from the Abel and Becker Cognitions Scale (Abel et. al., 1990) and possesses internal consistency (∞=.97), test-retest reliability (r=.84), and has discriminative validity (p=.001) (Bumby, 1996). Each of these measures is scored on a four point Likert scale from strongly agree to strongly disagree. An example of a question on the scale is "Sometimes, touching a child sexually is a way to show love and affection" (Bumby, 1996, p. 51). Higher scores on the scale indicate more justifications, minimizations, rationalizations, and excuses for sexual activity with children (Bumby, 1996). This scale has

shown to be reliable and valid in assessing the cognitive disorders of sex offenders (Bumby, 1996) and had a high internal reliability in this study as well (Cronbach's alpha = .954).

The final measure used in this study was Burton and Akakapo's (in press) deviant arousal scales. These scales operate via self report using Likert Scales. A five-point Likert scale was used to rank an individual's sexual excitement to deviant interests asking the question: "Have you ever been sexually excited by the following?" and lists 15 different options including pre-pubescent girls and boys, adolescent (13-18) girls and boys, masochism or sadism, sexual violence (rape), and exhibitionism (Burton, 2003). Respondent's feelings just before, during, and just after committing a sexual offense were reported via a ten-point Likert scale. A third four-point Likert scale (strongly agree to strongly disagree) is used to determine participants' feelings/reactions (strongly agree to strongly disagree) to sexual situations. Questions range from likelihood of losing an erection/becoming less aroused with the possibility of someone seeing or hearing the sexual act to the age of partner (too young) affecting arousal. The validity of the Deviant Arousal Scales has been measured, yielding a significant correlation between the scales and deviant sexual behavior (Burton et al., 2010; Burton & Ginsberg, in press; Burton et al., 2002).

Procedure

All participants in this study were identified through their involvement in the Sexual Abuse Treatment Alliance (SATA)/ Citizens United for the Rehabilitation of Errants-Sex Offenders Restored Through Treatment (CURE-SORT) support network. This non-profit organization serves a national population of sexual abusers. Of the two hundred thirty surveys mailed out, one hundred and forty-seven were returned in varying stages of completion. The 64% response is much greater than the usual 25% response rate found for most survey research.

One limitation of the strictly controlled anonymity enforced by this study is that there is no way to determine any differences between those who responded and those who did not. Researchers did not provide any incentives for completing this survey. Of the 147 returned survey, 40 did not meet the criteria for this study. Only data from subjects who admitted they had abused children (*n*=109) were included.

Multiple steps were taken to insure the anonymity of participants, which bolstered the reliability of responses (Abel, 1987). Participants indicated consent with a check mark and all participants returned the completed survey to the SATA/CURE-SORT office. Many subjects (79%), due to their incarcerated status, were unable to send the survey back without identifying information on the envelopes. Therefore, the SATA/CURE-SORT staff were entrusted with the responsibility for maintaining subjects' anonymity by separating envelopes with potentially identifying information or destroying any other identifying information from the survey data. Only after this task was completed were questioned forwarded to the researchers for data entry and storage.

SPSS 14.0 was used to complete data entry and quantitative data analysis. Correlations were performed for each of the variables (antisociality, childhood sexual trauma, cognitive distortions) and regressions were used to determine the predictive validity of the interactions of the three variables on deviant arousal.

Chapter 4

Findings

Deviant Arousal

The majority of participants (82.6%) self reported some level of deviant arousal. This percentage was achieved by summing the six items related to deviant arousal. A participant could score between zero (no deviant arousal) and twenty-four points (the highest level of deviant arousal for this scale). On average the men scored 2.97 points (SD =2.67), with a mode of 2.0. A large percentage of participants indicated some, if a minimal level of deviant arousal.

Antisociality

A notable percentage of respondents scored high on the MCM-III Antisocial Scale. Almost one third of the respondents (30.5%) scored above 75, the cut off point to indicate a presence of antisocial personality disorder. Within the 30.5%, 8.4% of the sample had scores above 85, indicating the prominence of antisocial personality disorder for these men.

History of Sexual Trauma

Norms do not exist on the Childhood Trauma Questionnaire (CTQ), but the average score on sexual abuse was 13.4 points ($SD = 7.16$ points). The scale has six items; a score of six would indicate no sexual abuse, while if a participant positively endorsed each question, the highest possible score would be thirty. The men's scores ranged between 6 and 30 points, with similar mean (*mean* = 13.4)and median (*median*=13.00); 70.6% of the men indicated a positive endorsement to at least one question, indicating some history of sexual abuse for the majority of the sample.

Cognitive Distortions

Cognitive distortions regarding molestation beliefs are summed into a total score for the fifty-two questions. Scores are inversely related to agreement with statements on the measure regarding molestation beliefs; if a participant had no distortions they would score 208. On average the men scored 111 points (*SD* = 22.33 points), with a *median* score of 114. No participant scored higher than 149 points and the lowest score, indicating the highest endorsement of cognitive distortions was 61 points.

Antisociality, Sexual Trauma, and Distortions as Predictive Factors of Deviant Arousal

The hypothesis for this project was that antisociality, the frequency of sexual trauma and the level of cognitive distortions would be positively correlated to deviant arousal and that the three would significantly predict deviant arousal. Table 1 displays a correlation matrix listing the three predictors: antisociality, history of sexual trauma, and cognitive distortions, and the criterion: deviant arousal. Antisociality and history of sexual trauma are unrelated to each other, cognitive distortions, and deviant arousal. Cognitive distortions, as measured by the MOLEST scale was significantly (*p* =.05) related to deviant arousal. This correlation is negative as would be expected as lower scores on the MOLEST scale indicate higher levels of cognitive distortions. A stepwise regression was performed to determine if antisociality, history of sexual trauma, and cognitive distortions significantly predicted deviant arousal and which variables were the best predictors of deviant arousal. The overall model was not predictive of deviant arousal (*p* =.191) nor did any of the variables remain in the model as might be predicted by the correlation matrix.

Table 1: Correlations

	MCMI Antisociality	CTQ Childhood sexual abuse	Cognitive distortions; MOLEST scale	Deviant Arousal
MCMI Antisociality	1.0			
CTQ Childhood sexual abuse	.077	1.0		
Cognitive distortions; MOLEST scale	-.046	.034	1.0	
Deviant Arousal	.103	.058	-.202 *	1.0

p = .05

Table 2: Regression onto Deviant Arousal Score

Variable	B (Standard Error)	Beta
CTQ Childhood sexual abuse	.021 (.039)	.056
MCMI Antisociality	.012 (.014)	.090
Cognitive distortions; MOLEST scale	-.024 (.013)	-.200

$F = 1.6, p = .191, R^2 = .053$

Chapter 5

Discussion

The purpose of this research was to determine predictive factors of deviant arousal based on variables strongly associated with sexual offending among a group of adult male sexual offenders of children. The data is generally consistent with the presence of antisociality, childhood sexual trauma, and cognitive distortions but inconsistent in the relationship between the variables and deviant arousal. Previous researchers have reported that antisociality, childhood sexual trauma, and cognitive distortions are factors in sexual offending and related to each other (Abel & Rouleau, 1990; Burton, 2003; Cortoni, 2009; Jespersen et al., 2009; Marshall et al., 2009; Seto, 2008). However, analyses for this sample show the variables are neither related to deviant arousal nor to each other.

Most of the participants indicated at least some, if minor deviant arousal, agreeing with the literature of sexual offending indicates that roughly half of sex offenders in a given population will endorse sexual deviance (Seto & Lalumière, 2001; Stinson et al., 2008). It is possible that the difference in results is due to measurements used wherein sexual offenders may be more likely to indicate deviant arousal with self report or this sample has more deviant arousal than others. Seto and Lalumière (2001) achieved their results by comparing deviant arousal to normative arousal phallometrically, while this study used self report regarding deviant arousal rather than a comparison. It is also possible that this population underwent more treatment and was more rehabilitated than other populations of sex offenders, as the majority was currently

incarcerated during data collection. Therefore, they may have been more willing to reveal arousal patterns.

Analysis shows that antisociality was neither predictive of deviant arousal, nor was it correlated with any other variable. These results contradict previous data. The literature has correlated antisociality with sexual offending, deviant arousal, childhood sexual trauma and cognitive distortions (Abel & Rouleau, 1990; Jespersen et al., 2009; Serin et al., 2001; Seto, 2008). It is possible that the incongruence with previous literature is the result of using different scales. Perhaps using the PCL-R or MMPI to measure the presence of psychopathology rather than antisociality in this study would have yielded results similar to the literature. Stinson et al. (2008) warns that measures of antisociality examine if a participant exhibits clinically significant psychological symptoms, but cannot be applied to an etiological explanation of deviant behavior.

Although the relationship between antisociality and other variables was inconsistent with the literature, the percentage of participants whose responses indicated antisociality (30%) within range for data on antisociality compared to the MCMI, PCL-R and MMNI. Serin et al.'s (1994) study on sexual offenders and psychopathy found that approximately 32% of participants were within antisocial personality disorder range. In general, the literature displays a diversity of results regarding antisociality, with a range between 6.3% (Porter et al., 2001) and almost 50% (Eher et al., 2003) (Ahlmeyer et al., 2003; Chantry & Craig, 1994; Firestone et al., 2000; Hanson and Murton-Bourgon, 2005). The variability in literature is likely a result of the particular populations studied. Rapists, child molesters with varying ages of victims and other non-sexual crimes, and non-sexual criminal offenders all have higher rates of antisocial traits than child molesters who only offend against children (Ahlmeyer et al., 2003; Chantry & Craig, 1994; Cohen et al., 2002; Davis & Archer, 2010; Eher et al., 2003; Firestone et al., 2000; Porter et al.,

2001; Stinson et al., 2008). As 75% of this study admitted to abusing more than one gender/age group resulting in 19 different combinations of gender and age groups, it is congruent with literature that the percentage of participants meeting the criteria for antisocial personality disorder was on the high end compared to the literature. A general explanation for the high rates of antisociality present in sex offenders is that participants endorse more symptoms of antisociality as a means to negate responsibility taking (Haywood & Grossman, 1994; Marshall et al., 2009).

Another finding consistent with the literature is how many participants indicated some sexual trauma in their histories. Various researchers have shown that a large percentage of sexual offenders report abuse in their own histories (Marshall & Marshall, 2000; Burton, 2003; Jespersen et al., 2009). However, results of the current study indicate that trauma history appears to have no relationship to deviant arousal, antisociality, or cognitive distortions. Again, there is inconsistency in the literature. For example, in Jespersen's et al. (2009) Meta analysis history of sexual trauma was significantly correlated to deviant arousal. Stinson et al. (2008) also present numerous cognitive theories regarding the change in thought about sexual experiences after being sexually abused as a child. It is possible that participants in this study lied about their own sexual abuse to garner sympathy from others or make themselves feel better. There is some evidence of this over reporting when it serves a purpose; however, in this study there was nothing that participants could gain from lying about their own abuse as it was collected anonymously (Dhawan & Marshall, 1996; Jespersen et al., 2009).

Cognitive distortions were marginally correlated to deviant arousal, but not predictive of deviant arousal. It is logical that if one believes it is "ok/not harmful" to have sex with children than one is more likely to fantasize and become aroused by the idea of sex with children.

However, researchers have also hypothesized that sex offender's use cognitive distortions as a post-hoc rationale for their actions, positing that the sexual offense comes first, and the cognitive distortion second (Marshall et al., 2009, Seto, 2008). This may explain why cognitive distortions and deviant arousal are correlated, but do not have a predictive relationship. It is also interesting that these men are currently in treatment, yet they still have a lot of cognitive distortions about sex with children.

Each variable in this study has previously been found to be significantly related to sexual offending. However, the hypothesis that antisociality, history of sexual trauma, and cognitive distortions predict deviant arousal was not proven in this study (Cortoni, 2009; Jespersen et al., 2009; Marshall et al., 2009). Interestingly, the variables bore no relationship to one another. Two questions are raised by this data: Are there other variables associated with sexual offending that can predict deviant arousal, and if no deviant arousal exists, what else accounts for sexually abusive behaviors?

Stinson et al., (2008) reviewed many theories of sexual offending that combine the presence of sexual deviance with biological/hormonal impairments, cognitive distortions, personalities geared towards aggression, brain/hormonal imbalances, childhood experiences of neglect/abuse/witnessing or engaging in promiscuous sex, and emotional dysregulation. One theory reviewed was Ward and Siegert's (2002) pathways model which postulates that a sex offender must possess four symptom clusters which include intimacy/social skills deficit, sexual scripts, cognitive distortions, and emotional dysregulation which interact and lead to sexual offending. This is a broader theory of sexual offending which focuses on more than deviant arousal. Instead, Ward and Siegert (2002) examined the interplay of one's childhood and adult emotional experience which creates cognitive schemas regarding sex and intimacy. Another

possibility is that the sex offense was behaviorally reinforced either by the feeling that accompanied the sexual offense, or by the release of feelings after completing the sexual offense (Stinson et al., 2008).

Implications

Research. After completing this research it is better understood what does not predict deviant arousal in this sample of sex offenders; however, there is still very little known about the etiology of "deviant arousal." Researchers could sample different subsets of the sex offender population, such as ones who are not currently incarcerated, or are unconnected with SATA/CURE-SORT to understand if the data found was unique to this sample. Research could also focus on additional variables associated with sexual offense such as number of victims, personality characteristics (e.g. thought disorders), masturbatory behavior, fantasies, pornography viewing habits, and socialization to sexual violence/child molestation, invalidating social environments, brain/hormonal abnormalities, or behavioral reinforcement. Perhaps one or more of these variables might predict deviant arousal. Researchers might learn more about deviant arousal by comparing it to the construct of "normative arousal." Approximately 50% of sex offenders have deviant arousal, what accounts for the other 50% of sex offenders?

Treatment. This research also has implications for treatment. As antisociality, childhood sexual trauma, and cognitive distortions, while correlated to sexual aggression, were not shown to be correlated to each other, each must be treated. The participants, even with treatment, showed a significant amount of cognitive distortions and illustrated that cognitive distortions are correlated to deviant arousal. Treatment for cognitive distortions, such as cognitive behavioral therapy and specifically cognitive restructuring, needs to be continued and adapted to better combat distorted thoughts regarding sexual aggression and child molestation.

While we still do not know the etiology of deviant arousal, research continues to show that it is a strong predictor of both sexual aggression and recidivism (Cortoni, 2009; Hanson & Murton-Bourgon, 2005; Jespersen et al., 2009). However, deviant arousal can still be treated through behavioral techniques such as aversion therapy, visualization of negative stimuli and satiation (D. Burton, personal communication, 7/28/2010).

Limitations

All scientific inquiry has limitations and the most important ones in this study are sample, sampling technique, and the use of data that had already been collected. The sample is convenient in nature and yields little external validity. The results of this study were related to the specific sample. It is unclear as to whether current incarceration, how much treatment participants received, or their involvement with SATA/CURE-SORT impacted the results. Additionally, participants all self-selected to return the survey. This investment in the study might be indicative of the sample being more improved in some areas, such as responsibility taking, than a wider population of sex offenders. The use of self report can be a limit; however the steps taken to protect anonymity counter that limit. This anonymity limits the examination of within sample differences. A final limitation of this thesis is the use of data which has previously been collected. While the data satisfies the hypotheses put forth, had this researcher designed an independent study, perhaps different questions would have been asked, different measures used and different results found.

Conclusions

Sexual offending and re-offending are significant social problems. Understanding more about why sexual offenders offend can help to limit offending behavior. This paper examined potential predictive factors of deviant arousal in efforts to better understand what creates deviant arousal in a person. As deviant arousal is strongly correlated with committing sexual offenses, understanding what predicts deviant arousal is of paramount important to making treatment more effective and decreasing the amount of sexual offending and re-offending for high risk populations.

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