

DISCRIMINATING BETWEEN COERCIVE VERSUS DEVIANT SEXUAL INTEREST

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This work is dedicated to my wife, Erin, for her patience, love, and humor.

I often say that when you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind; it may be the beginning of knowledge, but you have scarcely in your thoughts advanced to the state of Science, whatever the matter may be.

- Lord Kelvin

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ABSTRACT

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by Felix Smith

Deviant sexual interest is a frequently used construct in the sex offender literature wherein the presence of deviant sexual interest is seen as the herald of problematic and criminal sexual behavior. However, research findings suggest that deviant sexual interest is surprisingly common among individuals who are well-socialized and lack any criminal history. It may be that criminal sexual behavior reflects maladaptive ways in which criminals meet otherwise normal needs. In this model, sex offenders, as well as criminal offenders in general, are seen as belonging to a heterogeneous population engaging in a wide variety of criminal activities.

The current study was designed to (a) investigate the presence of diverse deviant sexual interests within a non-clinical adult population; (b) evaluate a newly developed measure designed to distinguish between interest in sadomasochistic/low base rate activities and criminal and/or coercive sexual interest; and (c) explore the relationships between deviant sexual interests and theoretically relevant characteristics such as vulnerability to negative emotion, interest in novel activities, attitudes towards rape, and empathic capacity. The overarching hypothesis was that deviant sexual interest would be distinct from coercive sexual interest and that these two constructs would demonstrate diverging patterns of association with personality traits and behavioral reports.

Three hundred and fifty-four participants were recruited through a variety of on-line discussion areas. The delineation between sadomasochist interest and coercive sexual behavior was not as clear as expected, as sadomasochistic interest reports correlated with reports of coercive sexual interest. The hypothesis that sensation seeking, openness to experience,

neuroticism, and externalizing characteristics would differentiate deviant sexual interest from coercive sexual interest was generally not supported by the data. As hypothesized, greater endorsement of rape myths were associated with higher levels of reported coercive sexual interest but not sadomasochistic interests. Externalizing behaviors were associated with both elevated sensation seeking and coercive sexual interest. Results suggest that engaging in sadomasochistic activities and willingness to engage in coercive sexual behavior were the strongest predictors of coercive sexual behaviors, and that reported interest in sadomasochistic activities and rape myth endorsement were the strongest predictors of *intention* to engage in coercive sexual behaviors.

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CHAPTER I

INTRODUCTION

Brief Overview

Deviant sexual arousal is a concept that is commonly referred to in the sex offender literature; however, researchers in the area of deviant sexual arousal have failed to define the underlying construct adequately. Deviance refers to a deviation from the “norm,” either statistically (the rarity of a sexual preference or activity) or in terms of its being socially unacceptable sexual behavior. The definition of deviant sexual arousal used in diagnosis and research is often reported arousal to unusual or abnormal sexual targets (for example, an interest in pre-adolescent humans or in non-humans) or to socially proscribed activities (viewing an individual undress without their knowledge or engaging in violent sexual behavior). This perspective is integrated within our current nosological system in the way in which paraphilias are defined as disordered target preferences or disordered activity preferences. Unfortunately, this theoretical approach provides few testable hypotheses or avenues to advance treatment. Deviant sexual arousal is frequently a focus in sex offender treatment, using techniques such as covert sensitization to attempt to condition (or recondition) arousal to more “normative” stimuli.

The governing assumption regarding deviant sexual arousal is that such arousal can cause deviant and criminal sexual behavior, and many researchers have attempted to establish this link through physiological means. Deviant sexual arousal has most often been operationally defined in terms of plethysmographic response to deviant materials. There are a number of problems with this line of research: (1) it lacks predictive validity; showing little capacity to distinguish

between offenders and non-offenders; (2) the method of assessment used lacks reliability; and (3) it assumes that sexual arousal leads to behavior.

Because of the apparent difficulties in studying deviant sexual arousal, it remains a poorly understood concept. Researchers in this area have reported variable and surprising findings. Studies utilizing penile plethysmography have found disturbing results, with rates of physiological arousal to violent sexual material in community samples at rates up to 14% of non-criminal males (Barbaree & Marshall, 1989). In confidential questionnaire studies, 51% of male college students report that if they were sure they would not be caught, they would be willing to rape someone (Malamuth, Haber, & Feshbach, 1980). In similar surveys, 19% of male college students reported using coercion to obtain sexual contact (Koss, Gidycz, & Wisniewski, 1987). Koss and colleagues found that more than 15% of female college students reported being raped at least once.

More naturalistic evidence, such as the apparent ubiquitous presence of sadomasochistic practices across western societies in the last 30 years, suggests that deviant sexual arousal may be not only more common than previously thought but, given the apparent non-criminal and high socioeconomic status of those involved in this behavior, deviant sexual arousal may not be the final common pathway to offending (Ward & Stewart, 2003a). There has been minimal attempt in the literature to distinguish between two constructs that are both characterized as deviant sexual arousal: (1) interest in sadomasochistic (SM) activities and (2) coercive sexual interest or an interest in sexual behavior that directly violates the rights of another.

The simplistic model that sexual arousal leads directly to sexual behavior, and that deviant sexual arousal leads to sexual acting out, is suspect. Several other characteristics are candidate causes of sexual acting out. These include trait disinhibition and sensation seeking,

general habituation to antisocial behavior, substance abuse, and misogynistic attitudes regarding rape (e.g., blaming victims for their dress, provocative behavior, etc.). The focus of the current study is to evaluate these candidates for inclusion in a broader model predicting sex acting out.

The current methods of studying deviant sexual behavior through physiological arousal measurement is also suspect due to the tendency to conflate different components and targets of arousal in an attempt to capture “deviance.” Arousal towards children, arousal towards young adolescents, interest in rape, sexual interest in non-human objects and in some research, interest in sadomasochistic activities, are included in the same domain of deviance. This approach may be due to the evidence linking deviant arousal and future criminal sex offending within previously convicted offenders (e.g., Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004). That is, those with prior sexual offense convictions show higher rates of arousal to various domains of sexually deviant material. This reasoning is analogous to positing that childhood sexual abuse causes psychopathology because adults with psychopathology report high levels of childhood abuse. However, due to the methodological and ethical issues which severely restrict effective data collection within populations prior to their first offense, there is little evidence to demonstrate that deviant sexual arousal is a useful prospective predictor of criminal or coercive sexual behavior. Additional suspicion regarding the predictive utility of deviant sexual arousal in sexual offenders can be seen in data demonstrating that members of this population typically have extensive and versatile criminal histories involving a variety of different criminal behaviors (e.g., Hanson & Morton-Bourgon, 2004).

The concern caused by the lack of specificity in the definition of deviant sexual arousal is deepened by recent investigations into the range of deviant sexual behaviors found in otherwise law-abiding groups. For the past 30 years in both the United States and Europe, the community

of individuals interested in and performing sadomasochistic acts appears to be growing in social acceptability, if not size (Moser & Kleinplatz, 2006). There is little evidence to suggest that these individuals are engaging in criminal or coercive sexual behavior even though, by the descriptions of their activities, they display significant levels of deviant sexual arousal. Various studies have estimated rates of sadomasochistic activities within the general population at between 2 and 10 percent (Moser & Kleinplatz, 2006; Richters, de Visser, Rissel, Grulich, & Smith, 2008).

Additional anecdotal data regarding the popularity of deviant sexual material can be found in the enormous volume of sadomasochistic or otherwise deviant or unusual pornography which has proliferated since the development of the Internet. It seems unlikely that a significant proportion of these interests are ever acted on, especially given the existence of web-pages dedicated to areas of sexual interest such as ASFR (Alt.Sex.Fetish.Robots; sexual interest in sexual contact with humanoid robots or the desire to transform oneself or others into some kind of sexual robot) or vore (sexual interest in drawn images of people being eaten, typically whole by large animals) which could not be acted on. Very little is known about individuals who frequent such web sites or become involved in sadomasochistic and fetishistic activities. However, several studies have suggested that many of those involved may have generally higher levels of education and socioeconomic status than the general population (Nordling, Sandnabba, Santtila, & Alison, 2006; Sandnabba, Santtila, & Nordling, 1999).

Deviant but Not Coercive Arousal

If sadomasochistic and fetishistic individual have high levels of deviant sexual arousal but are not acting on that interest, or are acting on it in non-coercive ways, there should be individual differences that help identify sadomasochist individuals who restrict their behavior to acts that are neither criminal nor coercive acts. These characteristics might also help delineate

important differences between SM interests and coercive sexual interest. As noted, hypothetical individual differences that may help distinguish those who go on to offend include impulsivity, disinhibition, sensation seeking, empathy and attitudes towards rape (for men). It is likely that those who are proceeding from deviant sexual arousal to coercive action differ in their ability to inhibit inappropriate behavior or are overly focused on engaging in sensation seeking behavior.

The goals of this study were two-fold: (1) to evaluate the relationship between deviant sexual interest and coercive sexual interest, and (2) to delineate between forms of deviant sexual arousal (coercive and non-coercive) through the use of candidate traits and attitudes.

Deviant Sexual Arousal and the Paraphilias

Within the current nosology presented in the diagnostic and statistical manual of mental disorders (DSM-IV; American Psychiatric Association, 2000), deviant sexual activity is discussed as a group of disorders termed paraphilias. Paraphilias encompass a variety of different acts that are directly sexual or sexually motivated. The DSM-IV identifies paraphilias based on two main criteria. Criterion A consists of intense, recurrent sexually arousing sexual fantasies, urges, and behaviors that involve the suffering or humiliation of oneself or one's sexual partner, activity with non-consenting persons, or nonhuman objects. To fulfill criterion B, the individual must have acted on these impulses towards a non-consenting individual or the impulses must have caused significant distress or impaired functioning.

The DSM-IV-TR contains a variety of descriptive paraphilia categories. These categories include exhibitionism (sexual gratification obtained by displaying genitalia to unsuspecting individuals), fetishism (sexual focus on an inanimate object), frotteurism (obtaining sexual gratification by touching unsuspecting individuals without their consent), pedophilia (sexual interest in individuals who have not reached maturity), sexual masochism (obtaining sexual

gratification from one's own harm or humiliation), sexual sadism (obtaining sexual gratification from inflicting harm or humiliation on others), transvestic fetishism (obtaining sexual arousal through dressing in clothing traditionally associated with the opposite gender), voyeurism (obtaining sexual gratification from watching unsuspecting individuals disrobe or engage in sexual activity), and the “catch-all” paraphilia not otherwise specified (NOS). Within the paraphilia NOS category, several subcategories have been identified as common enough to be specifically addressed in the literature. These categories include coprophilia (sexual focus or interest on feces), klismaphilia (sexual focus or interest in enemas), necrophilia (sexual interest or activity with corpses), partialism (sexual focus on specific body parts), telephone scatologia (obtaining sexual gratification from making explicitly sexual telephone calls to non-consenting adults), urophilia (sexual focus or interest in urine), and zoophilia (sexual interest or activity with animals). (See Appendix A for a review of literature on the DSM and the categorical definition of paraphilias. A review of the literature on physiological measurement of deviant sexual arousal is included in Appendix B.)

DSM categories do not attempt to address deviant sexual arousal in any meaningful way beyond the presence of frequently self-reported fantasy (in criterion A). The descriptive system of the DSM does not address the relationship between arousal or desire and action or the obvious difference between action and fantasy. The individual under discussion does not have to have acted in any way on the fantasy but merely be bothered by its presence in order to be diagnosed in the same category as an individual who has been acting criminally on the arousal multiple times per day for years. Behaviorally oriented researchers (Wulfert, Greenway, & Dougher, 1996) have argued that the form of the paraphilia is less significant than the function of the behavior itself. If the illegal behavior that is involved in a paraphilia is utilized for ameliorating

negative affect that the perpetrator is experiencing, this function of the behavior is more salient to categorizing or altering the behavior than the surface characteristics of the behavioral target.

This view is bolstered by the reliable finding of comorbidity between paraphilias (Abel, Becker, Cunningham-Rather, Mittelman, & Rouleau, 1988; Abel & Rouleau, 1990; Bradford, Boulet, & Pawlak, 1992, Freund & Watson, 1990). This high degree of comorbidity (as high as 80% between some categories in the Freund and Watson study) suggests that the current categories used to divide these individuals are not meaningfully capturing discrete syndromes of fantasy and behavior. On the contrary, the evidence suggests that differing surface expressions of common underlying syndromes are being carved into diagnostic entries. The suggestion that there are a small set of disorders which are expressed in many different ways appears more parsimonious than a diagnostic model including a multitude of disorders.

Research suggests that those engaging in sexual assault are a heterogeneous group (Prentky & Knight, 1991) who nonetheless share some static and preference variables (e.g., Barbaree & Marshall, 1989; Hanson & Bussière, 1998). Barbaree and Marshall (1991) differentiated between predictors of rape from those focused on sexual assault as a paraphilic issue. Summaries of the research have concluded that around 35 percent of men report that they would use force to engage in sexual behavior if they believed they would not face consequences (Gidycz, Warkentin, Orchowski, & Edwards, 2011). Across different studies and research protocols, between 22% and 57% of college age men reported engaging in some form of sexually aggressive behavior (including a range from unwanted contact to completed rape; Abbey & McAuslan, 2004).

Malamuth (1986) assessed male college students over two phases of data collection during a two-month period. Participants did not know they were two parts of the same study. The

first phase consisted of self-report measures of hostility towards women, sexual dominance, antisocial characteristics and general psychopathology. In the second phase, penile plethysmography was used to measure arousal to sexual narratives. Three narratives were used, one of described a woman masturbating alone, one depicting rape, and one depicting a consensual sexual encounter. Plethysmograph and self report measures of arousal were both used as outcome measures and correlated highly with one another. Both measures of arousal to rape showed moderate correlations with sexual aggression and dominance. Hostility towards women showed a moderate correlation with self-reported rape interest and a smaller correlation with physiological response to the rape narrative. When assessed together, the predictors accounted for largely independent variability in reported sexual aggression. Malamuth argued that this provides evidence for a model of sexual offense prediction which combines deviant sexual arousal, general sexual drive, and attitudinal factors.

In a sample on assaultive and non-assaultive males, Malamuth (1988) found that men admitting to sexually assaultive behavior reported higher levels of acceptance of interpersonal violence, rape myth acceptance, adversarial sexual beliefs, hostility towards women, and dominance (also see Rapaport & Burkhart, 1984). Malamuth argued for the importance of a two dimensional approach, emphasizing both previous sexual history (typified by delinquent sexual peers, earlier sexual activities, and impersonal and detached sexual activity) along with a perceived likelihood to assault dimension. Perceived likelihood to assault was related to elevated traits of hostile masculinity (such as adversarial personality style, adherence to rape myths, and higher levels of sexual dominance).

Given the legal dangers involved in admitting to rape, some researchers have conducted studies under a federal certificate of confidentiality in an effort to obtain more accurate

information. Abbey and McAuslan (2004) followed 197 college-enrolled men over a year period under such a confidentiality agreement. At the beginning of the study 35 percent of the participants reported performing one or more sexual assaults since the age of 14 years, with almost nine percent admitting forced or attempted rape. Over the one year period, 14 percent of the sample committed another sexual assault. They found that men who endorsed multiple rapes scored higher on measures of hostility against women, past sexual experience, adolescent behavior problems, and drinking in sexual situations compared to those who had perpetrated only once. Those who perpetrated multiple times also expressed significantly less remorse than those that committed only at the first assessment time.

In a longitudinal sample of 334 men, Gidycz, Warkentin, Orchowski, and Edwards (2011) found that men who rated themselves higher on likelihood to use sexual coercion were more likely to have engaged in coercive behavior at the time of a three month follow up. For items framed in the format, "What is the percent chance you would do x," over 6 percent admitted at 90 to 100 percent chance they would use social pressure and arguments to obtain sexual play. Approximately 9 percent reported some likelihood of administering drugs or alcohol in order to engage in sex play. Approximately 18 percent reported some history of engaging in sexually aggressive behavior in the past, with almost six percent admitting to a rape or attempted rape. At the end of the three month follow up period, 10 percent admitted to some form of sexual aggression. Almost two and a half percent reported a rape or attempted rape within the three month period. In both cases, the majority of aggression occurred within the context of a dating relationship.

In summary, this line of research suggests that self report data regarding levels of interest in engaging in coercive and assaultive sexual behavior have some predictive value, especially

when coupled with attitudes that encourage or accept sexual coercion. Further, one third of men report some form of coercive sexual interest, in that they report they would act out if the opportunity were available.

Explanations of Sexual Offending: Criminogenic Needs and Criminal Versatility

A growing body of research addresses why some act on deviant sexual interest in an inappropriate manner (and do so repeatedly) whereas most with deviant arousal do not (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004). Recidivism has been strongly linked to historical indicators of deviant sexual arousal (such as previous convictions and age of first conviction for a sexual crime) but also other characteristics such as antisocial orientation, a history of rule violations, and general criminal history. One data-informed model proposed by Andrews and Bonta (1998) emphasizes the concept of criminogenic need. The theoretical basis of the criminogenic need model is function analytic in nature; meaning that offenders have a number of normative needs, one of which is sexual arousal, but they may meet sexual needs in maladaptive or criminal ways. This has led to a model of treatment, known as the Comprehensive Good Lives model (GLM-C), that attempts to develop methods of altering or addressing sexual needs in more pro-social ways and developing a capacity for impulse inhibition. In this model, criminal sexual behavior is only one manifestation of an underlying criminal personality structure (marked by behavioral disinhibition). Proponents point to the criminal versatility of sex and non-sexual offenders, as well as their heterogeneous nature. Sex offenders are more likely to recidivate with a non-sexual, rather than a sexual crime (Hanson & Bussière, 1998). Although sexual delinquency is a key driving factor, without behavior disinhibition, it is not acted upon. The prominence of non-sexual characteristics in the Good

Lives model points to the need to investigate such traits in the service of better understand the progression from non-criminal to criminal sexual behavior.

Andrews and Bonta (1998) initially proposed the general concept of criminogenic need as part of the criteria that a forensic treatment protocol would need to adhere to in order to be considered viable. Andrews and Bonta approach criminal behavior from a functional perspective, arguing that certain needs or the absence of access to goods increases the risk of criminal behavior within an individual. They approach this as the keystone concept behind the development of new treatments for recidivism across all criminal behavior. They illustrate four key principles for the development of a successful approach: risk, matching the level of intervention to the level of risk involved; need, the specific targeting of needs which are criminogenic in nature; responsivity, the capacity to reach the approached populations and have them comprehend it; and professional discretion, the capacity and flexibility for workers within this framework to bypass these principles if it is deemed to be necessary. Andrews and Bonta argue for the development of a criminogenic need literature, based on the previous literature focusing on dynamic and static risk factors for recidivism.

The model proposed by Andrews and Bonta (1998) was criticized and revised by Ward and Stewart (2003a). Ward and Stewart (2003a) argued that on philosophical and practical grounds that needs must be differentiated into two categories: instrumental needs and categorical needs. Ward and Stewart (2003a) define instrumental needs that are not an end in themselves but a way to meet another, more basic, need. In other words, a need for something that will be instrumental in obtaining another, typically categorical need. An example of this might be a perceived need to steal. Although it is perceived as a need, the underlying need may be for the financial gain involved or the stimulation of engaging in the activity. Categorical needs are basic,

direct needs. Although there is by no means an agreement on which needs qualify as universal let alone what those universals might be, easy examples are food and connection with other humans. Ward and Stewart argue that Andrews and Bontas' conceptualization focuses too firmly on instrumental need. They argue that a corruption of instrumental need is the mechanism by which specific criminogenic needs facilitate specific criminal acts. Ward and Stewart make the case for three basic, categorical needs over and above the obvious physiological needs of the human body. They nominate relatedness (meaningful connections to others), competency (the need to feel that one is capable and able to contribute to one's life in some way), and autonomy (a sense of control over one's existence). They argue that the relationship between these needs and the outcome of human well being is mediated or moderated by internal conditions (such as skills and competencies, beliefs, and attitudes) and external conditions (such as education, parenting, and social support). They approach criminogenic need as distortions of these internal and external factors. They argue that when faced with obstacles to developing these needs in a healthy fashion, the individual may turn to defensive strategies or the development of "proxy" needs.

Ward and Stewart (2003a) argued that a second problem with Andrews and Bontas' (1998) initial proposition is the focus on society's needs rather than the offender's needs. The original criminogenic model approaches the concepts involved as an example of instrumental need. Criminals are rehabilitated in order to reduce the risk they pose to society. Ward and Stewart suggest that to facilitate change, the focus must be on assisting criminals to reduce these obstacles in order to obtain their normative needs in more socially appropriate ways.

Furthering the attempt to develop a theoretic model of the specifics and underpinnings of criminogenic need, Ward and Gannon (2006) proposed the Integrated Theory of Sexual Offending (ITSO). The ITSO is currently a work in progress and is informed by a variety of

ongoing empirical studies. The ITSO addresses biological functioning, psychological functioning, social learning and niche factors, clinical symptoms as well as how these factors and sex offending facilitate, maintain, and escalate each other. The applied version of the ITSO, the Good Lives Model – Comprehensive (GLM-C) applies these concepts outlined in the GLM-C to the generation of specific and global interventions. The interventions generated by the GLM-C are intended to address those aspects outlined by the ITSO in order to reduce obstacles and promote the healthy need to gain needs effectively. A significant piece in the puzzle of the etiology of sexual offending and a stopping block for the development of grand theories of explaining specific crimes is the versatility of criminal behavior. Forensic populations, particularly those committing sex crimes, are extremely heterogeneous (Knight & Prentky, 1990; Quinsey, 1984), and researchers have consistently failed to find specific, common individual differences that allow them to differentiate criminals from non-criminals or subsets of criminals. Attempts have varied from the now ludicrous (such as phrenology and Bertillonage) to various examples of modern demographic analysis. A closely related problem is that of criminal versatility. Despite any criminogenic need variables that predispose them toward sexual offending (such as deviant sexual arousal), sexual offenders are more likely to reoffend in the form of a non-sexual crime rather than a sexual crime (Hanson & Morton-Bourgon, 2004). This difference is evident even if they have received treatment. Although deviant sexual arousal does predict recidivism to a degree, other key predictors include antisocial attitudes and negativistic attitudes towards authority, living an unstable lifestyle, early involvement in criminal activities, and criminal versatility. The significance of early criminal activity and criminal versatility, suggests that a key mediator (or even the final common pathway to offending) may be a construct more closely related to impulsiveness, disinhibition, or sensation seeking.

Over the course of their lives, the majority of people have become sexually aroused but have needed to and succeeded in containing their impulses and directing their interest towards socially acceptable outlets. The exploration of criminogenic need provides the opportunity to examine intervening variables that allow an individual to contain or fail to contain urges in a way that addresses the function of the behavior. Without an understanding of the prevalence of deviant sexual arousal it is impossible to address the distinction between the prevalence of deviant sexual arousal, and the intention to act on it in a socially proscribed manner. Consequently, it becomes difficult to determine whether deviant sexual arousal is in fact the main contributing cause of deviant sexual behavior. If a key part of the causation is a failure to inhibit, rather than the presence of the arousal itself, this could partially explain the high level of criminal versatility that has been found within the sex offender population. As suggested by criminogenic need principles, sexual offenders attempt to meet needs in inappropriate and impulsive ways. If this is the case, then a key factor to be addressed is impulsivity and disinhibition.

Sensation Seeking and Impulsiveness

Given the suggestion that sexual acting out may be closely tied to general impulsive sensation seeking behavior, it would be profitable to briefly address the general research on sensation seeking. Sensation seeking is defined as the level at which an individual seeks out exciting, stimulating situations and experiences and those high in the traits are also described as vulnerable to boredom and having a diminished capacity to inhibit behaviors (Zuckerman, 1996). Several psychometric measures as well as the genetic and neurobiological underpinnings have been developed and well studied.

Two studies (Fulker, Eysenck, & Zuckerman, 1980; Hur & Bouchard, 1997) have suggested a significant genetic component on the basis of comparisons of monozygotic and dizygotic twins raised both together and apart. Both studies reported a heritability coefficient of around .50, although Zuckerman (2005) suggests that when corrected for the unreliability of the psychometric measures it may be as high as .69. Other studies (Eysenck, 1983; Koopmans, Boomsma, Heath, & Van Doornen, 1995) suggest that a similar heritability may apply to subtraits within sensation seeking.

Current genetic research suggests that there may be a specific genetic basis for this transmission, related to the alleles of the dopamine receptor D4 gene (Cloninger, 1987). Later research has indicated that this might in fact be an additive effect across several of the dopamine receptor genes (Comings, Saucier, & MacMurray, 2002). Other studies point to a possible interaction between dopamine receptor genes and short alleles of the serotonin transporter gene and a specific allele of the catechol-O-methyltransferase (COMT) genes (Ebstein & Auerbach, 2002; Ebstein, Levine, Geller, Auerach, Gritsenko, & Belmaker, 1998).

Physiological measures have demonstrated that people with levels of high sensation seeking are likely to show high levels of physiological responding to novel stimuli closely followed by rapidly diminishing levels of response when items are represented often enough to no longer be novel (Zuckerman, 1990). These differences were enhanced when the content was of particular interest to high sensation-seekers, such as aggressive or sexual stimuli (Smith, Davidson, Smith, Goldstein, & Perlstein, 1989; Smith, Perlstein, Davidson, & Michael, 1986).

One explanatory mechanism thought to underlie sensation seeking is that high sensation seeking individuals constantly experience chronic low arousal, specifically, low arousal of the behavioral inhibition system (BIS; sensitivity to avoidance of negative consequences; Fowles,

1980; Zuckerman, 1983) and that sensation seeking behavior is intended to increase the level of arousal in order to reach a level of “optimum arousal.” Cooper, Agocha, and Sheldon (2000) suggested the presence of an interaction between impulsivity and other personality characteristics. They linked the behavior activation system (BAS; sensitivity to reward cues for engaging in behavior) and the behavioral inhibition system to more narrow personality traits. They argued that individuals with higher neuroticism have more dependence on BIS related decision making and that individuals with higher extroversion are likely to be more reliant on BAS for decision making. Cooper and colleagues argued that neuroticism is more likely to drive escape or avoidance behavior and extroversion is more likely to generate sensation seeking behavior. Theory suggests that personality characteristics channel sensation seeking behavior in specific ways. This explanation meshes well with the good lives model of offender treatment, suggesting the possibility of different offender typologies, higher neuroticism offenders who are engaging in sensation seeking activities such as sex offenses to reduce or regulate negative affect and high extroversion offenders (who may more closely resemble individuals with anti-social personality disorder) who are engaging in the high risk sexual offending behaviors in order to obtain a pay-off of enjoyment or pleasure. The growing evidence of the significance of impulsive control in sexual offending shows the dearth of evidence related to individuals who evidence what may be described as deviant sexual arousal without engaging committing offenses, sexual or otherwise. A close parallel to this can be seen in attempts to understand the general construct of impulsivity.

Impulsivity is a construct in that it has been used as an umbrella term for a collection of externalizing behaviors rather than specifically indicating difficulty in inhibiting responses. For example, Krueger and colleagues view trait impulsivity as part of a personality construct

underlying a spectrum of externalizing behaviors (Krueger, Markon, Patrick, Benning, & Kramer, 2007). They argue that this construct can provide a theoretical underpinning for the spectrum of adult antisocial behavior described in DSM-VI diagnoses such as conduct disorder, antisocial personality disorder, and substance abuse. These disorders co-occur at a rate that suggests a common underlying factor distinct from affective disturbance (Krueger, 1999). Further studies suggest that this underlying factor is transmitted from parents to offspring independent of risk factors for specific externalizing disorders (Hicks, Krueger, Iacono, McGue, & Patrick, 2004).

Krueger and colleagues developed an empirically derived model for examining externalizing behavior, (Krueger, Markon, Patrick, Benning, & Kramer, 2007). The externalizing spectrum model (ESM) attempts to resolve the problem of comorbidity between diagnoses that may share underlying factors by developing a hierarchical, empirically based model that defines these factors statistically. Krueger and colleagues used a pool of 415 items addressing rational domains of externalizing behavior across a sample of 1,787 participants and analyzed the results. Items were drawn from a variety of existing measures and from the DSM-IV criteria for externalizing disorders. The sample included community members, prisoners, and students. Krueger and colleagues developed 23 empirically derived subscales: relational aggression, physical aggression, destructive aggression, empathy, blame externalization, alienation, alcohol problems, alcohol use, marijuana problems, marijuana use, drug problems, drug use, theft, fraud, honesty, irresponsibility, dependability, problematic impulsivity, planful control, impatient urgency, rebelliousness, boredom proneness, and excitement seeking. (See Appendix C for a brief description of each subscale of the full externalizing inventory.)

Extensive statistical modeling of these scales led to the development of a hierarchical factor solution, with one central externalizing factor with two subfactors below it on which the subscales load. Although neither subfactor has been named by its creators, the first subfactor contains items closely related to aggression towards others, rule-breaking, and general sensation-seeking and the second subfactor contains items related to drug use and abuse. The relational aggression, physical aggression, destructive aggression, blame externalization, fraud, impatient urgency, rebelliousness, boredom proneness, and excitement seeking subscales load on the first factor along with negative loadings for the empathy and honesty scales. The alcohol problems, alcohol use, marijuana use, marijuana problems, drug problems, drug use, and theft subscales all load on the second factor.

The existence of an underlying, empirically derived model of externalizing behavior that encompasses the already identified externalizing behavior nosology mapped out in the DSM-IV has significant implications for the study of sexual acting out behavior. The current DSM-IV nosology for inappropriate sexual behavior and paraphilic interest addresses only discrete behaviors without any consideration for the significant comorbidity between diagnoses. Furthermore, the DSM fails to address common socially condemned sexual behavior that is often repeated in a pathological way, such as a rape. The externalizing factor could help clarify sexual acting out behaviors in future nosological efforts. The ESM provides a stepping-stone to attempts to link sexual externalizing spectrum behavior to non-sexual externalizing behavior. However, conjoint investigation of deviant sexual arousal and externalizing traits would assist in distinguishing general antisocial behavior from deviant sexual arousal.

Sadomasochism, Sadomasochistic Interest and Other Non-Coercive “Deviant Sexual Arousal”

If sexual offending involves both a trait of global “deviant sexual arousal” and an impulsive-sensation seeking acting out component, then the investigation of a community sample who endorse deviant sexual arousal should include a subset of individuals without high levels of impulsive-sensation. Sadomasochism is a primary domain of deviant sexual arousal but it has been largely ignored in the empirical literature on sexual or violent offending. Partly this is due to the lack of a clear, agreed upon definition as to what specific behaviors or practices constitute sadomasochistic activity (Moser, 1984). Based on eight years of fieldwork consisting largely of interviews with SM practitioners, Weinberg, William and Moser (1984) offered a working definition of sadomasochism, discussing five components that co-occur: the appearance of domination and submission (the appearance of rule by one party over another); role playing; consensuality, defined as a voluntary agreement to participate in these activities; mutual definition, that is, a shared understanding that the activities are sadomasochistic; and a sexual content. They emphasized the socially constructed nature of these behaviors, noting that some groups (they gave the example of several, largely homosexual subgroups) may engage in these behaviors but not define them as SM behaviors.

Moser and Kleinplatz (2006) estimated that approximately ten percent of the general adult U.S. population is involved in sadomasochistic activities. However, without adequate epidemiological research, this represents a weak estimate and is derived from investigating those already involved in SM practices. A Google search for the term sadomasochism (performed on 08/19/2011) returned over one and a half a million websites. Public activities, such as the Folsom street fair, a Californian street festival geared towards sadomasochistic interests reports attendances of around 400,000 per year (Moser & Kleinplatz, 2006). Beyond anecdotal evidence,

very little is known regarding the origin or development of these activities or even the specifics of preferred deviant activities.

Research on SM activities and the people who engage in them has been limited by methodological problems. Many studies have comparatively small sample sizes and participants are often recruited from SM clubs or by placing advertisements in SM magazines. Other methods include survey research to qualitative summations of unstructured interviews. Many studies focused on male participants. Overall, studies prior to the late 1970s tended to characterize SM as a small subculture, connected through SM bookshops, clubs, and bars with a significant differentiation between homosexual and heterosexual subcultures. SM participants tended to be higher earning, higher educated, and generally satisfied with their sexual interest (Santtila, Sandnabba, & Nordling, 2006; Spengler, 1977).

Spengler (1977) conducted one of the first empirical investigations of heterosexual, homosexual, and bisexual SM interested men. He used a West German sample and found that, among those who were participating in the SM subculture, more than 90 percent were over 25 years old, a quarter has some kind of university education, and as a group they had higher than average income. Many demonstrated significant behavioral restraint (averaging five sexual encounters per year). He found that homosexual participants tended to have more partners and had more friends who were participating in SM activities. In contrast, around a quarter of the heterosexual participants visited professional dominatrices. Spengler (1977) found high levels of self acceptance among those questioned and found only marginally higher than average divorce rates for SM practitioners. He concluded that the majority of the sample were versatile in their sex-play role preference (dominant or submissive).

By contrast, Kamel's (1980) approach was closer to participant observation, in the vein of William Whyte or James Patrick (Patrick, 1973; Whyte, 1943). He conducted interviews with participants in gay leather-sex bars and other establishments. From these qualitative data, Kamel delineated four key areas of a homosexual SM practice and subculture: restraint, humiliation, masculinity, and fear. However, he characterized SM behavior as an acquired activity generated largely through dissatisfaction with the conventional gay subculture.

Herron, Herron, and Schultz (1983) investigated gender role adherence in a sample of 120 male and female sadomasochists, divided evenly by gender and preference for dominance and submissiveness. Participants were recruited in person through attendance at a SM organization in New York. Based on questionnaire data, male dominants were the most masculine, followed by female dominants, and then both groups of submissives. With regards to femininity, the two groups of males were not different, but submissive females reported higher femininity than female dominants. Notably, male dominants reported both higher levels of masculinity and femininity than female dominants.

Responding to the criticism that women not engaging in prostitution were almost unknown in the SM community, Breslow, Evans, and Langley (1985) investigated the presence of women in the SM community. Participants were gathered through advertisements in SM interest magazines. Out of a sample of 182, almost a third were female. About 77 percent of the females had never engaged in prostitution (as opposed to 92 percent of the males). In aggregate, the women were younger, less wealthy, more likely to have been introduced to SM behavior through a partner, and more likely to identify as bisexual. Both groups were indistinguishable in role preference (dominant, submissive, or "switch"), comfort with their sexuality, level of interest in SM practices, and openness about their sexuality with friends and significant others.

Women were more likely to have more partners and engage in SM practice more frequently (perhaps due to their relative scarcity within the population). In terms of specific practices, women were more likely to endorse a preference for restraint than men but were similar to men on preference for other activities including fetishistic activities (such as leather and rubber interest).

Breslow, Evans, and Langley (1986) gathered questionnaire data over a two year period by placing advertisements in SM magazines, writing to advertisers in SM magazines, and visiting locations including a SM oriented shop and several SM clubs. They gathered a sample of 136 heterosexual males, 45 bisexual men, and 91 homosexual men who all completed a 40 item questionnaire. A quarter of the sample completed an additional follow up questionnaire of 22 open-ended questions. Almost two thirds of the sample characterized their interest in SM as “natural” in that they believed it was innate rather than learned. As with Spengler (1977), age of first interest was in SM was late puberty, although age of first interest was slightly earlier for gay males. About half of the heterosexual and bisexual males had acquaintances involved in SM, whereas more than 90 percent of the gay males did, perhaps implying a growth in SM subculture. Approximately one third of the heterosexual males had used the services of a professional dominant or sex worker in contrast to about 12 percent of gay males. Across all three groups, less than ten percent reported a history of sexual abuse.

In a follow up study, Breslow (1987) attempted to differentiate SM role preference based on locus of control. Sadists, masochists, and ”switchers” endorsed high internal locus of control but sadists valued sexual control the most, followed by switches, and then masochists. Breslow notes that masochists were significantly more variable in their responses. As an aside, participants in general were more educated and affluent than national averages.

Nordling, Sandnabba, Santtila, and Alison (2006) compared Finnish homosexual and heterosexual SM practitioners with a comparison heterosexual group. They found limited evidence to suggest a relationship between participation in SM activities and early family dysfunction or poor adult social adjustment. A third of the SM practitioners possessed a university degree, compared to the national average of 5.5% (Sandnabba, Santtila, & Nordling, 1999). Nordling and colleagues (2006) found marginally higher than baseline rates of childhood sexual abuse for males engaged in SM activities (7.9% in the sample versus 1-3% in the general population) and significantly higher rates in female SM practitioners (22.7%) compared to population estimates of 6-8%.

Nordling and colleagues (2006) found a minimal level of agreement as to what constituted sadomasochistic practices. Analysis from these and previous data suggests four general categories: (1) hypermasculinity, (2) administration and receiving of pain, (3) physical restriction and (4) psychological humiliation (Alison et al., 2001). Higher rates of hypermasculinity were prevalent among homosexual SM practitioners and psychological humiliation and the administration and receiving of pain were more prevalent among heterosexual practitioners. However, these differences were only evident at the trending level. The level of social adjustment and success as well as the lack of criminal behavior, found by Nordling and colleagues (2006) is consistent with other studies investigating SM practitioners. Investigation of SM practitioners by Santtila and colleagues (2006) found that of their sample of 184 Finnish males who engage in SM, 23 percent identified themselves as mainly sadistic, 23 percent as both sadistic and masochistic, and 50 percent as mainly masochistic.

Santtila and colleagues (2006) studied 184 Finnish members of SM clubs and organizations. They found that most of the sample reported becoming aware of their desires

between the ages of 18 and 20 and had first engaged in sadomasochistic sexual behavior between ages 21 and 25. They found that differences in sexual orientation predicted the activities and role-playing scenes that practitioners preferred. Among homosexual male practitioners they found that the activities of anal sex, anal-tongue contact, the use of an artificial phallus, leather clothing, genital binding, wrestling, and the use of furniture, crosses, or cages were more common. Among heterosexual males they found that flagellation of various types, verbal humiliation, the use of masks and blindfolds, use of gags, the wearing of rubber clothing, vaginal intercourse, cross dressing, the use of straight jackets, and the application of electric shocks were more common. Activities were not different in prevalence across different sexualities. These activities included oral sex, bondage and restraint, the use of clamps, spanking, biting, urination, use of body odors, face slapping, use of weights, the application of enemas, the application of hot wax or ice, penetration of the anus with a hand or fist, piercing, branding, play with feces, hypoxiphilia, the use of knives and razor blades, mummification or wrapping in materials, catheterization, and contact with animals. Common activities, such as oral sex, bondage, flagellation, and anal sex were practiced by 81 to 95 percent of all practitioners. This finding suggests that “deviant” sadomasochistic activities may not have been performed instead of more common behaviors, but in addition to them. Less common activities, such as contact with animals and catheterization were engaged in by few than 10 percent of the sample.

The disturbing and potentially harmful SM behavior described by researchers such as Santtila and colleagues (2006) has led to suggestions that mental illness or criminality may be inherent in SM behaviors. Connolly (2006) examined Californian SM practitioners with a variety of psychometric measures including the Minnesota Multiphasic personality inventory, second edition; the Millon Clinical Multi-axial Inventory, second edition; the Trauma Symptom

Inventory; the Posttraumatic Stress Disorder Scale; the Multiscale Dissociation Inventory; the Beck Depression Inventory, second edition; and the Beck Anxiety Inventory. Connolly (2006) found participants to be within the normal range across the aforementioned psychopathology scales, with exception of showing slightly higher levels of reported dissociation and narcissism on the MCMI-2. Connolly reports that sadomasochists report minimal posttraumatic stress disorder or borderline personality disorder pathology on the MCMI-2.

The limited empirical research on reported fantasies of SM practitioners generates a number of counter-intuitive findings regarding the focus on sexual pleasure in those involved in these activities. Yost (2007) surveyed 264 SM practitioners and asked about sexual fantasy content. Yost coded the content of fantasies for themes such as dominance and submission, sexual pleasure for the self, and sexual pleasure for the other partner. Yost found that practitioners who identified themselves as dominant or submissive in their activities (individuals who focused on one particular role, that of the aggressor or submissive in consensual sexual activities) tended to focus on the sexual pleasure of their partner. By contrast, those identifying themselves as a “switch” were the only group that focused more on their own sexual pleasure than their partner's.

Criminogenic need theory suggests that those engaging in assaultive sexual behavior are doing so to fill self focused needs such as sexual gratification. However, Yost (2007) suggested that most of those in the SM community describe an interpersonal focus to their fantasy life. The needs that they are fulfilling through SM activities, although still sexual, appear related to the interpersonal situation and power dynamic generated and less to do with the self-focused sexual stimulation. This focus on the pleasure experienced by one's partner is an attitude that at odds

with the image of an individual sexually acting out's presumed focus on "sexual release at all costs."

Sadomasochistic Sexual Interest in the General Population

The majority of studies of SM have polled those involved in the SM community. Methods include advertisements and clubs postings, data collection at high profile events (such as the Folsom street fair), and more recently through interest groups on the Internet. Less effort has been placed on investigating the presence of sadomasochistic practitioners in the general population. Richters, de Visser, Rissel, Grulich, and Smith (2008) mailed surveys to an Australian community sample of over 19,000. They received a surprisingly high response rate of 73.1%. In this sample, 8% reported engaging in SM activities at some point (2.2% of men, 1.8% of women over the past year). Among males they found no relationship between engaging in SM sexual activities in the last year and education level, age, region of residence, or relationship status. Males who participated in these activities in the last year were more likely to be bisexual or identify themselves as homosexual. Women endorsing SM behaviors were more likely to also identify themselves as bisexual or homosexual. Females in the 16-19 year old age group were significantly more likely to participate in SM activities than other age groups. They found no relationship between engaging in SM behaviors and having a history of being sexually coerced as a child or an adult. Men engaging in SM activities reported that they experienced significantly less distress than their non-participating counterparts. There was a significant relationship for males between reported SM sexual behavior and being imprisoned in the last year. However, no information regarding the nature, length, or cause of imprisonment was reported.

It seems that using the term deviant sexual arousal to address both the phenomenon of SM activity and coercive sexual behavior is a misnomer. I contend that interest in SM spectrum

behaviors (SM interests), which might be characterized as deviant in the sense of being low-base rate compared to simple penetrative sex, should be differentiated from deviant sexual arousal towards coercive, criminal, or assaultive acts (referred to as coercive sexual interest throughout this document), which are characterized as deviant in the sense of a clear contravention of law and intent to inflict harm on another. Indeed, the growing body of evidence suggesting that SM behavior may be more common than previously thought challenges the assertion that SM behaviors are low base-rate. A defining line of demarcation between these two categories appears to be the issue of consent. Individuals engaging in SM behaviors appear to be doing so within consenting and negotiated relationships, whereas those engaging in coercive behaviors are by their nature doing so against the victim's will. Important personality characteristics should differentiate someone acting with in a consenting relationship, engaging in acts that have been negotiated, agreed upon, and planned in advance from individuals interested in exploiting or coercing another into sexual acts.

In order to evaluate factors relevant to both potential constructs of deviant sexual arousal, a variety of existing measures will be used in the proposed study. The list of traits and attitudes to be measured include sensation seeking, the broad five factor measure of personality, an interpersonal reactivity index, attitudes towards rape, and problematic impulsivity and irresponsibility. Measures from these domains should provide information relevant to evaluating ability to inhibit behavior, management of negative affect, empathy, desire for novel sexual activities, and cognitive distortions that provide justification for sexual assault against women. I also included a locally constructed fantasy and action inventory (FAI) to measure SM and low base rate interests and criminally deviant interests.

Purpose and Hypotheses

The goals of this study were to develop a novel method of measuring deviant sexual arousal in the service of delineating boundaries between sadomasochistic sexual arousal and coercive sexual interest. These categories of deviant sexual arousal were expected to have different individual difference correlates reflecting important differences in personality, motivation, and attitudes. Data were obtained from a non-clinical population and sexual practice and fantasy measures were used along with measures of sensation seeking, openness to experience, empathy, cognitive distortions endorsing rape myths, and antisocial behavior.

Primary Hypotheses:

- 1) Reported interest in SM activities and coercive sexual interest are conceived as related, but distinct constructs. Hence, measures of these two constructs should have a low, but positive correlations with one another.
- 2) Higher levels of coercive sexual interest and behavior are expected to correlate with higher levels of the following variables.
 - a) Sensations seeking
 - b) Previous antisocial behavior
 - b) Externalizing behavior
- 3) Greater reported interest in deviant sexual pursuits (e.g., SM activities) is expected to demonstrate a unique pattern of correlates with the variables below.
 - a) SM interest is expected to show positive correlations with sensation seeking. This relationship is hypothesized to be positive but weaker than the hypothesized correlation between sensation seeking and coercive sexual interest.
 - b) Higher levels of reported trait openness.

- c) Higher levels of reported externalizing behaviors (this relationship is expected to be weaker than that hypothesized between externalizing behavior and coercive sexual interest).

Additional hypotheses:

- 4) Endorsement of traditional gender roles and beliefs assigning blame to victims of sexual assault is expected to correlate with higher self report of coercive sexual interest but not greater interest in SM activities.
- 5) Less reported trait empathy is expected to negatively correlate with coercive sexual activities.
- 6) Individuals with high sensation seeking traits are expected to report higher frequencies of prior conduct disorder behavior as a child and more adult antisocial behavior.
- 7) Sensation seeking and empathy will interact to predict sadomasochist sexual behavior such that those reporting both high sensation seeking and high empathy will report the greatest interest and engagement in SM behaviors. Those with high sensation seeking and low empathy are expected to endorse both coercive sexual interest/behavior.
- 8) Sensation seeking and neuroticism are expected to interact such that both higher levels of sensation seeking and neuroticism will predict greater general and coercive sexual behavior.
- 9) Externalizing behavior is expected to show strong positive correlations with sensation seeking and with childhood conduct disorder.

CHAPTER II

METHOD

Participants

Participants were recruited on-line through posts at a total of fifteen different website forums. These invitations were placed with the consent of the forums and websites used. Forums targeted included moderated forums targeted towards adults. These forums included general interest and current affairs forums, forums focusing on specific activities, such as snow-boarding, or rock climbing. Several of the sites used were dedicated to providing opportunities to participate in psychological research to those that are interested. Forums specifically related to illegal behavior or sexual behaviors were not targeted. No posts were made without receiving the specific permission of a moderator via email or private message. Participants were given a link to follow which led them to the survey website where they were warned that they must be over the age of 18 to participate in the study. They were informed that the survey would ask them for information related to sexual material. See Appendix D for the text of the initial posting and Appendix E for the text of the welcome page.

Of the 674 participants that began the survey, 383 participants completed at least the fantasy section which consisted of the first 10 pages of the 17 pages in the total study. Participants who did not complete at least the fantasy and action inventory (FAI) were not included in the main analysis ($n = 291$). One participant was eliminated for reporting an age under the requirement of 18 years. The Sensation Seeking Scale, form five (SSS V), IPIP personality scales, interpersonal reactivity index (IRI), subtle rape myth acceptance scale (SRMAS), and externalizing inventory (EI) each included a question checking for purposeful responding at the midpoint (for example “thank you for your attention, please select option

four”). Participants who incorrectly responded to more than one of these items were eliminated from further analyses ($n = 28$), leaving 354 participants.

The majority of the sample did not report their nationality (68%), of those who did the majority were U.S. citizens (68 participants). Also represented were Australian (5 participants), Austrian (1 participant), Belgian (1 participant), British (20 participants), Canadian (5 participants), Danish (2 participants), German (7 participants), Indian (1 participant), Mexican (1 participant), Russian (1 participant), Serbian (1 participant), and Spanish (1 participant). Ages ranged from 18 years to 64 years. The mean age was 29.75 years with a standard deviation of 9.57 years. The median age was 28 years. The majority of the sample was male (70%) but 2.5% did not provide their gender. The majority of the sample (91%) was Caucasian, with 1.9% Mexican or Mexican-American, 1.7% Native American, 1.1% African-American, .6% Asian-Indian, .6% Japanese, .6% Chinese, .6% Korean, .3% Guanian or Chamorro, and .3% Filipino. Only 3.6% did not report their racial background.

The majority of the sample had completed some post-high school education. Fewer than 8% stopped education at high school. Thirty percent reported “some college”, 6% stopped at an Associate’s degree, 35% completed a Bachelor’s degree, and 15% completed a Master’s or Specialist degree. Six percent did not complete the education question.

Procedures

A secure study website containing two sections was created. The first section contained an electronic consent form. The consent form is included in Appendix F. The second section contained the survey questions and presented feedback to the participants. Feedback was provided in order to provide an incentive for participants. There was no way to link the responses in any section with personally identifying information. Participants’ progression through the

webpage is diagrammed in Table 1. No IP or cookie information was recorded, in order to preserve participant's anonymity.

The first section presented a warning page stating that the study asked personal questions and contained questions of a sexual nature. On the same page, the consent form was presented. The participants were asked to read the consent form. The consent form made it explicit that participation was entirely voluntary and that they could stop at any point in the survey. It also clearly stated that the questions involved sexual content and that they should not continue if they were under the age of maturity. Participants were asked for an electronic signature, which consisted of selecting a statement that says that they agree to participate in the survey. Participants could not enter the survey without providing the electronic signature.

In keeping with recommendations for on-line research by Nosek, Banaji, and Greenwald (2002), every page of the study included a link marked "Click here if you do not wish to continue." This link took participants directly to the debriefing page. This allowed participants who no longer wished to continue to follow this link and leave the study while still viewing the debriefing materials. Completed text of the debriefing page is included in Appendix M. After the consent form was completed, participants automatically continued to the second section of the survey. Section two presented the questionnaire measures required. These measures were the fantasy and action inventory (FAI); the sensation seeking scale, form V, (SSS; Zuckerman, 1994), measures of openness to experience (O), neuroticism (N), drawn from the international personality item pool (IPIP; Goldberg, 1999); the interpersonal reactivity index (IRI; Davis, 1980); the subtle rape myth acceptance scale (Cochran, Quirk, & Meadows, 2004); and two subscales drawn from the Externalizing Inventory (Krueger, Markon, Patrick, Benning, & Kramer, 2007). Measures were presented one at a time in the order given in the previous list.

Table 1. *Progression through the Study Webpage*

		Location in Appendix
1	Follow link to survey from solicitation post or search engine advertisement	D
2	Welcome Page	E
3	Consent Form	F
4	Demographics	G
5	Questionnaire: Fantasy and action inventory	H
6	Questionnaire: Sensation seeking scale, form V	N/A
7	Questionnaire: Neuroticism (N)	I
8	Questionnaire: Openness to experience (O)	J
9	Questionnaire: Interpersonal reactivity index	N/A
10	Questionnaire: Subtle rape myth acceptance scale	K
11	Questionnaire: Externalizing inventory	N/A
12	Questionnaire: Presentation of feedback for all measures	L
13	Debriefing Page and Contact information for Mental Health Services	M

Participants completed each section of a measure and then clicked on a button that took them to the next page. Due to its length, the FAI was spread over ten pages. Items were divided by content: masturbation and pornography items, sexual contact with opposite gender, sexual contact with the same gender, pornography content, two pages of SM interest related items (restraining or spanking oneself or others), items related to special clothing and materials (for example, uniforms or latex rubber clothing), penetrative acts (such as object insertion or enemas), and illegal or coercive sexual acts (for example, forced sexual intercourse or rubbing genitals against another in public). The last page of the FAI contained the antisocial behavior items, which were the criteria for conduct disorder in question format. Because participants were asked about their behavior as juveniles and adults, several items were eliminated from the adult section as they no longer made sense (for example, “Did you run away from home?”). The other measures were presented on their own page, with the exception of the IPIP scales which were present on the same page due to their short length. The five pages after the FAI each contained a

checker item. Each checker item asked the participant to respond in a certain way (for example “Please select option B. Thank you for paying attention.”).

In order to facilitate participants’ right to withdraw or not participate, participants were not required to answer every item. At the end of the questionnaire, participants were presented with feedback on their performance on the sensation seeking and personality measures. The feedback for the existing measure took the form of three pre-written statements for the sensation seeking scale, form V, the international personality item pool openness to experience scale, and the international personality item pool neuroticism scale. Three statements were generated for each measure, one for the low range (one and a half or more standard deviations below the mean), one for the average range (ranging from one and a half standard deviations below the mean to one and a half standard deviations above the mean), and one for the high range (more than one and a half standard deviations above the mean). The standard statements are included in Appendix L.

Steps were taken in order to preserve participants’ anonymity. “Cookies” (files that track web users browsing history) were not utilized by the web site. Although all Internet service providers (ISPs) record Internet protocol (IP) addresses that access information on their network, the IP address identifies only the computer, not the individual who has been accessing it. The principle investigator has no means to access ISPs records. If someone were to access this information, it would only report that they had accessed the study webpage. Participants’ responses were encrypted. Although ISP logging cannot be prevented, no information regarding a user’s IP address was recorded. By doing this no connection could be made between a user’s IP address and a given set of survey results. In order to filter out non-purposeful responding, each participants’ starting and ending times were recorded, in order to determine how long they spent

completing the survey. There is no way for the investigator to link any reported criminal behavior to an individual IP or an individual person.

Measures and Materials

Questionnaires used included the fantasy and action inventory (FAI); the sensation seeking scale, form V, (SSS V; Zuckerman, 1994), measures of openness to experience (O), neuroticism (N), drawn from the international personality item pool (IPIP; Goldberg, 1999); the subtle rape myth acceptance scale (SRMAS; Cochran, Quirk, & Meadows, 2004); the interpersonal reactivity index (IRI; Davis, 1980) and two subscales drawn from the Externalizing Inventory (Krueger, et al. 2007).

The FAI was written specifically for this study. It is included in Appendix H. The FAI contains 10 sections containing items related to specific acts within those domains. The sections include acts performed in isolation (such as masturbation), “normative” activities performed with the opposite sex, “normative” activities performed with the same sex, pornography use, sadomasochistic activities performed with either gender (based on items drawn from Nordling et al., 2006), acts related to a sexual focus on materials (such as leather, rubber, or shoes) performed with either gender, insertion of objects into bodily orifices, and coercive, and “naturalistic” sexual assault items. The last section consists of the criteria for conduct disorder, drawn from the DSM-IV, as a measure of general antisocial behavior. For each item, respondents were asked to provide three responses on a ten-point scale ranging from one to ten for their strength of interest in this item. For each item they are asked to rate if they had fantasized about this activity, if they would do this activity with a consenting person, or if they would do this activity with a non-consenting person if they believed they would escape punishment or other negative consequences of this activity. Participants were also asked if they have engaged in this behavior

alone, or with another person as appropriate to the item content.

The sensation seeking scale, form five, (SSS V; Zuckerman, 1979; Zuckerman, 1994) measure a person's preference for sensation seeking and impulsive behavior and activities. The SSS V contains four subscales, thrill and adventure seeking (TAS), experience seeking (ES), disinhibition (Dis), and boredom susceptibility (BS). It is a 40 item forced choice test with ten questions addressing each subscale. Each question offers the participant the choice of two items to endorse; e.g.: A) I have no patience with dull or boring persons. B) I find something interesting in almost every person I talk to. Internal consistency reliability is acceptable with Zuckerman (1994) reporting the overall alpha as .83 to .86. The internal consistencies for the subscales are slightly lower, .77 to .82 for TAS, .61 to .67 for ES, .74 to .78 for DIS, and .56 to .65 for BS. Test-retest reliability is .94 at a three week interval.

The international personality item pool (IPIP) openness to experience (O) and neuroticism (N) scales (Goldberg, 1999) correlate highly with the neuroticism, extroversion, openness to experience personality inventory, revised (NEO-PI-R; Costa & McCrae, 1992). The short forms of both scales each contain 10 items. IPIP neuroticism scale correlates at .82 with the NEO-PI-R N domain. IPIP openness to experience scale correlates at .79 with the NEO-PI-R O domain. Internal consistency for the IPIP neuroticism varies from .77 to .88. Internal consistency estimates for the IPIP openness to experience vary from .77 to .86. The IPIP N scale is included in Appendix I. The IPIP O is included in Appendix J.

The interpersonal reactivity index (IRI; Davis, 1980) is based on Davis' (1980) multistage model of empathy. It is a 28-item Likert scale containing four subscales of seven items. The subscales assess perspective-taking and fantasy (cognitive aspects of empathy), and empathic concern and personal distress (affective aspects of empathy). Davis (1980) reports internal

consistency scores ranging from .70 to .78 and test-retest reliabilities ranging from .61 to .81.

The subtle rape myth acceptance scale (SRMAS; Cochran, Quirk, & Meadows, 2004) measures a series of beliefs and attitudes that justify sexual aggression by men against women. The SRMAS is an improvement on the rape myth acceptance scale (RMAS) developed Burt (1980) it includes a number of distracter items that reduce the obviousness of the subject matter being assessed. It consists of 14 items (and six distracter items) assessed on a seven-item Likert scale and an additional four items assessed on a five item Likert scale. It is unidimensional with an alpha reliability of up to .76 and a test-retest reliability of .78. Results were not related to responses on measures of social desirability (Pless, Meadows, Cochran, & Artz, 2005). The SRMAS is included in Appendix K.

The externalizing inventory (EI) is composed of 415 items. It was developed to measure externalizing spectrum characteristics. Krueger and colleagues report that statistical analysis of 1,787 participants produced a closely related two-factor solution, with the majority of violent subscales loading on the first factor and the majority of substance related subscales loading on the second. The two factors correlate, $r = .66$. Krueger and colleagues also note that a number of subscales appear to load more on the central construct than the two factors. These subscales are problematic impulsivity and irresponsibility. Because of the unwieldy nature of the entire instrument and the level of redundancy within several of the other measure used in this study, problematic impulsivity and irresponsibility have been selected for inclusion. They have been chosen because on a rational level they seem to be most closely related to the constructs of interest in this study. These subscales have limited overlap with other measures and they load highly on the central externalizing spectrum construct. Krueger and colleagues report reliability estimates of .93 for problematic impulsivity and .93 for irresponsibility.

CHAPTER III

RESULTS

Treatment of Missing Data

At the individual item level, for items that required a binary response (such as the coercive or SM interest scales), missing values were set to zero. This choice was made because participants were asked to endorse low-base rate behaviors and it is appropriate to consider a blank item to be more similar to a negative rather than affirmative response. This solution allowed a more stringent approach without throwing out many participants. Scales were compiled based on the remaining items. For items that required a response on a Likert scale (such as the subtle rape myth scale or the IPIP personality scales), the mid-point of the Likert scale was used in place of missing responses. This avoided artificially deflating scales values. Scales were compiled including these “midpoint” items. Based on these methods 10,138 missing data points were marked as a “no” or as a midpoint response out of a total 260,308 data points, comprising less than four percent of the total data points. The number of replaced items per scale is displayed in Table 2.

Scale Descriptives and Psychometrics

The coercive sexual fantasy scale was generated by summing the answers given in response to “I have fantasized about this act” for the items related to forced or coercive sexual behaviors. Examination of the six item scale showed a Cronbach’s alpha of .91. Further psychometric data are displayed in Table 3. Not surprisingly, the scale was positively skewed with 47% of individuals endorsing no coercive sexual fantasies. However, this rate of

Table 2. Amount and Percentage of Data Replaced During Cleaning

Scale	Completed Items	Missing Items	Total Items	Percentage Completed
Coercive Sexual Fantasy	2052	72	2124	97
Coercive Sexual Intent	8456	743	9199	92
Coercive Sexual Behavior	2085	39	2124	98
SM Interest	6812	268	7080	96
SM Consenting Interest	6731	349	7080	95
SM Activities	6933	147	7080	98
Juvenile Antisocial Behavior	17329	725	18054	96
Lifelong Antisocial Behavior	30781	725	31506	98
Sensation Seeking Scale, Form V	13406	754	14160	95
Openness to experience	3524	16	3540	100
Neuroticism	3529	11	3540	100
Interpersonal Reactivity Index	9020	892	9912	91
Subtle Rape Myth Acceptance Scale	4907	49	4956	99
Externalizing Inventory	15615	315	15930	98
Total of All Measures	260308	10138	270446	96

N = 354

endorsement is significantly higher than some previous studies showing rates of interest in CSF activities at around 14% of the community population (Barbaree & Marshall, 1989). The items and item level results are reported in Table 4. There were significant differences between genders. Men were much more likely to endorse coercive sexual fantasies (for example 48% of men endorsed “I have fantasized about persuading someone to undress when they didn’t want to” as opposed to 15% of women). As can be seen in Table 4, a fairly high percentage of respondents endorsed the coercive sexual fantasies which included “persuade” items (averaging about 46% endorsement for men and 13% for women) versus “physically force” items (around 33% endorsement for men and 6% for women). Among those who endorsed coercive fantasies, the mean fantasy strength (rated on a 1-10 scale) was close to the midpoint of 5 and did not vary

Table 3. *Psychometric Properties of Scales and Subscales.*

Scale	Alpha	Items	Lowest CITC	Highest CITC	Low Score	High Score	Mean Score	Median Score	Score SD
CSF	.91	6	.72	.81	0	6	1.89	0	2.30
CSI	.96	26	.30	.94	0	24	1.99	0	4.81
CSB	.80	6	.55	.68	0	6	.41	0	1.04
SMI	.84	20	.33	.65	0	20	8.32	8	5.10
SMCI	.88	20	.34	.66	0	20	8.77	9	4.95
SMA	.89	20	.32	.70	0	19	5.03	4	4.67
JASB	.77	33	-.04	.55	0	17	4.03	3	3.23
AASB	.66	26	-.06	.43	0	13	2.68	2.5	2.02
TASB	.82	59	-.04	.57	0	26	6.80	6	4.66
SSSV: Total	.82	40	.01	.58	0	36	19.48	20	6.43
SSSV: TAS	.79	10	.23	.58	0	10	4.88	5	2.90
SSSV: DIS	.69	10	.21	.56	0	10	4.68	4	2.35
SSSV: ES	.61	10	.19	.41	0	10	6.61	4	2.12
SSSV: BS	.58	10	.09	.48	0	9	3.19	3	2.01
IPIP O	.89	10	.59	.66	10	50	30.41	30	7.91
IPIP N	.83	10	.36	.60	28	50	42.27	43	4.94
IRI: Total	.81	28	.16	.53	44	107	72.48	72	10.48
IRI: PT	.77	7	.32	.56	9	28	18.51	18	4.18
IRI: Fantasy	.71	7	.21	.44	10	28	19.41	19	4.07
IRI: EC	.76	7	.13	.56	8	28	19.33	19	4.06
IRI: PD	.64	7	.28	.46	7	27	15.22	15	3.75
SRMAS	.81	14	.08	.65	14	80	32.50	31	10.49
EI Total	.88	45	.11	.50	0	36	11.54	10	7.24
EI: PI	.85	20	.16	.58	0	19	5.40	4	4.06
EI: I	.83	25	.13	.50	0	20	5.98	5	4.32

CSF = Coercive Sexual Fantasy ($N=354$), CSI = Coercive Sexual Intent ($N=354$), CSB = Coercive Sexual Behavior ($N=354$), SMI = SM Fantasy Interest ($N=354$), SMCI = SM Consenting Interest ($N=354$), SMA = SM Activities ($N=354$), JASB = Juvenile Antisocial Behavior ($N=266$), AASB = Adult Antisocial Behavior ($N=354$), TASB = Total Antisocial Behavior ($N=266$), SSSV: Total = Sensation Seeking Scale, Form V: Total ($N=313$), SSSV: TAS = Sensation Seeking Scale, Form V: Thrill and Adventure Seeking ($N=313$), SSSV: DIS = Sensation Seeking Scale, Form V: Disinhibition ($N=315$), SSSV: ES = Sensation Seeking Scale, Form V: Excitement Seeking ($N=314$), SSSV: BS = Sensation Seeking Scale, Form V: Boredom Susceptibility ($N=313$), IPIP O = Openness to Experience ($N=341$), IPIP N = Neuroticism ($N=345$), IRI: Total = Interpersonal Reactivity Index: Total ($N=354$), IRI: PT = Interpersonal Reactivity Index: Perspective Taking ($N=354$), IRI: Fantasy = Interpersonal Reactivity Index: Fantasy ($N=354$), IRI: EC = Interpersonal Reactivity Index: Empathic Concern ($N=354$), IRI: PD = Interpersonal Reactivity Index: Personal Distress ($N=354$), SRMAS = Subtle Rape Myth Acceptance Scale ($N=346$), EI Total = Externalizing Inventory: Total ($N=347$), EI: PI = Externalizing Inventory: Problematic Impulsivity ($N=347$), EI: Irresponsibility = Externalizing Inventory: Irresponsibility ($N=347$).

greatly across items. Mean fantasy strength varied from 5.03 for “persuade someone to undress for you” to 5.46 for “physically force someone to undress for you.” The rate at which

participants endorsed fantasy strength is shown in Table 5. All three coercive sexual behavior scales were positively skewed. In the case of coercive sexual fantasy, 53% of individuals endorsed no items. A skew of .882 ($SE = .130$) and a kurtosis of $-.769$ ($SE = .259$) were obtained. Because of the extensive skew, efforts to normalize the distributions through transformation were attempted. Based on the shape of the distribution, an inverse transformation was attempted (Tabachnick & Fidell, 2007, pp. 86-89). This made little difference and the resulting variable remained substantially skewed. Consequently, coercive sexual fantasy was also divided into a three level variable based upon an effort to divide individuals who endorsed any items into groups of similar size.

The coercive sexual behavior scale was generated by summing the answers given in response to the “I have done this act” section for the items related to forced or coercive sexual behaviors, so that answers indicated the degree to which a participant admitted to engaging in

Table 4. *Percent Endorsement for Coercive Sexual Fantasy and Coercive Sexual Behavior by Gender*

Individual Items	Coercive Sexual Fantasy		Coercive Sexual Behavior	
	Males	Females	Males	Females
1 Persuade someone to undress for you when they didn't want to	46	15	15	3
2 Persuade someone to engage in oral with you when they didn't want to	44	11	15	2
3 Persuade someone to have sex with you when they didn't want to	44	13	17	3
4 Physically force someone to undress for you	28	8	3	1
5 Physically force someone to engage in oral sex with you	33	5	2	0
6 Physically force someone to have sex with you	33	8	3	2

For Coercive Sexual Fantasy: N s ranged from 336 to 341. For Coercive Sexual Behavior: N s ranged from 339 to 346.

illegal or assaultive sexual behavior. Examination of the scale properties showed a Cronbach's alpha of .80 over the six items on the scale. Corrected item total correlations ranged from .55 to .68. As with coercive fantasy items, the scale demonstrated notable positive skew with 77% of individuals endorsing no coercive sexual behavior and a skew value of 3.140 ($SE = .130$) along with a kurtosis of 10.824 ($SE = .259$). The items and item level responses are reported in Table 4. A fairly consistent pattern between fantasy and behavior emerged with greater endorsement of the softer worded "persuade" items versus "physically force" items. The pattern of significant gender differences continued, at least for the "persuade" items (approximately 15% for men and 3% for women). This pattern is less evident with the "physically forced" items as they were infrequently endorsed (3% for men and 1% for women).

Table 5. *Percentage Endorsement of Fantasy Strength for Those Endorsing Coercive Sexual Fantasies.*

Item	Fantasy Strength									
	1	2	3	4	5	6	7	8	9	10
1 Persuade someone to undress for you when they didn't want to	8	8	23	10	10	8	16	8	3	7
2 Persuade someone to engage in oral with you when they didn't want to	10	13	13	12	8	9	14	10	1	10
3 Persuade someone to have sex with you when they didn't want to	11	14	15	6	10	11	14	8	3	9
4 Physically force someone to undress for you	13	5	21	1	13	13	11	9	3	9
5 Physically force someone to engage in oral sex with you	10	9	17	7	12	7	14	9	5	10
6 Physically force someone to have sex with you	11	10	15	7	11	6	15	10	4	12

Ns ranged from 81 to 120

As with the other coercive sexuality scales, the coercive sexual behavior scale was positively skewed with 82% of individuals endorsing no items. Efforts to normalize the extensive skew were not successful and coercive sexual behavior was also divided into a three level variable such that “high coercive sexual behavior” included those scoring three or higher items, “medium coercive sexual behavior” for those endorsing between one or two items, and a “no coercive sexual behavior” level. This categorical variable was used to supplement the analysis of the continuous variable.

The coercive sexual intent scale was generated by summing the answers given in response to the “I would force a non-consenting person to do this act with me if I **knew** I would not face legal consequences” for the items related to sexual contact with the same or other gender, sexual penetration, and assaultive or coercive sexual activity. The items and item level responses are reported in Table 6. Gender differences were evident among these items. More commonly endorsed items for men were “touching someone else’s private parts” (24% for males, 3% for females), “persuade someone to undress for you when they didn’t want to” (20% for men, 0% for women), “persuade someone to engage in oral sex with you when they didn’t want to” (19% for men, 1% of women), and “touch someone’s breasts or genitals in public” (19% of men, 4% of women). The latter item was the most endorsed by women, with no other item being

Table 6. *Percent Endorsement for Coercive Sexual Intent by Gender*

Individual Items	Percent Answering “Yes”	
	Males	Females
1 Touching someone else’s private parts (buttocks, breasts, etc)	23	3
2 Touching someone else’s genitals	16	2
3 Performing oral sex on someone else	8	1
4 Having oral sex performed on you by another person	12	1
5 Engaging in vaginal sex with another person (if applicable)	12	3
6 Engaging in anal sex with another person.	9	1
7 Touching someone else’s private parts (buttocks, breasts, etc)	8	1
8 Touching someone else’s genitals	6	1
9 Performing oral sex on someone else	5	1
10 Having oral sex performed on you by another person	6	0
11 Engaging in vaginal sex with another person (if applicable)	1	1
12 Engaging in anal sex with another person.	5	1
13 Insert an object other than a penis into someone’s vagina	10	1
14 Insert an object into someone’s anus	8	1
15 Use a strap-on penis on someone	3	1
16 Give someone else an enema	3	1
17 Touch someone’s breasts or genitals in public	18	4
18 Persuade someone to touch your breasts or genitals in a public	9	3
19 Rub your genitals against someone in private	14	3
20 Rub your genitals against someone in public	9	2
21 Persuade someone to undress for you when they didn’t want to	20	0
22 Persuade someone to engage in oral with you when they didn’t want to	19	1
23 Persuade someone to have sex with you when they didn’t want to	17	1
24 Physically force someone to undress for you	10	2
25 Physically force someone to engage in oral sex with you	10	2
26 Physically force someone to have sex with you	9	1

Ns vary from 108 to 336.

endorsed by more than 3% of the women in the sample. Average fantasy strengths were marginally more variable, varying from 4.50 out of 10 for (“perform oral sex on someone else”) to 6.48 out of 10 (“Engaging in vaginal sex with another person”). The rate at which participants endorsed fantasy strength is shown in Table 7. The rates of endorsement for persuasive coercion items are consistent with the 15% figure reported by Koss and colleagues (1987). As with the other coercive sexuality scales, scores here were positively skewed with 77% of individuals endorsing no coercive sexual intent. Skew was 2.745 ($SE = .130$) and kurtosis was 6.970 ($SE = .259$). Because of the extensive skew, use of parametric analyses becomes less tenable. Efforts to normalize the distributions through transformation made minimal difference to the degree of skew so another three level grouping variable was created for coercive sexual intent. “High coercive sexual intent” was defined as those scoring eleven or higher, “medium coercive sexual intent” was characterized by those endorsing between 1 and 10 items, and a “no coercive sexual intent level” was included.

The SM fantasy interest scale was generated by summing the answers given in response to the “I have fantasized about this act” items related to sadomasochistic activities. Examination of the 20 item scale properties showed a Cronbach’s alpha of .84. The items and item level responses are reported in Tables 8 and 9. The SM fantasy scale was mildly positively skewed, although not as strongly as the coercive sexual activities scales, with 6% of respondents endorsing no items (skew = .279, $SE = .130$; kurtosis = -.763, $SE = .259$). There were significant gender differences. Males endorsed more items than women. The mean endorsement rate across items was 43% for men and 35% for women. Men were more likely to endorse dominant activities

Table 7. *Percentage Endorsement of Fantasy Strength for Those Endorsing Coercive Sexual Intent.*

Item	Fantasy Strength									
	1	2	3	4	5	6	7	8	9	10
1 Touching someone else's private parts (buttocks, breasts, etc)	7	7	23	7	23	7	12	5	2	7
2 Touching someone else's genitals	3	8	23	10	21	5	10	8	8	5
3 Performing oral sex on someone else	0	10	10	25	35	0	5	10	0	5
4 Having oral sex performed on you by another person	3	0	7	10	30	7	17	3	3	20
5 Engaging in vaginal sex with another person (if applicable)	0	3	6	16	28	0	13	6	13	16
6 Engaging in anal sex with another person.	5	0	9	9	27	18	9	9	0	14
7 Touching someone else's private parts (buttocks, breasts, etc)	15	5	15	5	30	0	15	10	5	0
8 Touching someone else's genitals	6	6	18	12	18	12	12	18	0	0
9 Performing oral sex on someone else	15	8	31	8	15	8	0	8	8	0
10 Having oral sex performed on you by another person	0	0	7	14	7	21	21	7	14	7
11 Engaging in vaginal sex with another person (if applicable)	0	0	0	25	0	0	50	25	0	0
12 Engaging in anal sex with another person.	8	0	15	8	31	46	8	0	23	8
13 Insert an object other than a penis into someone's vagina	4	4	22	17	9	9	13	22	0	0
14 Insert an object into someone's anus	10	10	10	5	19	10	5	29	0	5
15 Use a strap-on penis on someone	0	0	13	25	38	0	13	13	0	0
16 Give someone else an enema	25	0	0	13	25	13	0	13	0	13
17 Touch someone's breasts or genitals in public	10	14	14	14	10	10	12	4	2	8
18 Persuade someone to touch your breasts or genitals in a public	0	8	12	12	16	12	28	8	0	4
19 Rub your genitals against someone in private	15	18	9	18	9	3	12	9	3	6
20 Rub your genitals against someone in public	17	4	17	13	17	13	8	8	4	0
21 Persuade someone to undress for you when they didn't want to	4	9	23	17	6	9	11	11	4	6
22 Persuade someone to engage in oral with you when they didn't want to	11	11	16	13	2	7	16	9	4	11
23 Persuade someone to have sex with you when they didn't want to	5	12	10	12	12	10	24	5	2	10
24 Physically force someone to undress for you	11	7	15	7	19	19	11	4	7	0
25 Physically force someone to engage in oral sex with you	8	19	15	12	12	8	4	4	4	15
26 Physically force someone to have sex with you	0	14	18	5	18	0	18	5	5	18

Ns vary between 4 and 57.

Table 8. *Percent Endorsement of SM Fantasy Interest, SM Consenting Interest, SM Activities Performed by Gender.*

		SM Fantasy Interest		SM Consenting Interest		SM Activities Performed	
		Males	Females	Males	Females	Males	Female
1	Wear a blindfold before or during sexual activity	58	66	72	71	44	40
2	Have someone else wear a blindfold before or during sexual activity	67	52	80	62	48	30
3	Spank someone during sex	63	34	70	39	62	37
4	Being spanked by someone else during sex	35	63	42	60	35	59
5	Spank or strike someone with a whip, crop, cane, or other implement	36	27	41	26	22	17
	Spanked or struck by someone else with a whip, crop, cane, or other implement	27	44	29	40	17	26
7	Restrain or tie someone up before/during sex	79	56	80	59	54	40
8	Be restrained or tied up before/during sex	65	81	67	78	44	48
9	Have another person wear a gag or mask during sexual activity	44	15	44	16	19	6
10	Wear a gag or mask during sexual activity	29	23	32	28	13	19
11	Have someone kiss your feet or shoes	19	19	27	21	21	27
12	Kiss someone else's feet or shoes	29	14	36	19	35	19
13	Have someone else pretend to be your servant or slave	63	26	61	29	28	11
14	Pretend to be someone else's servant or slave	47	46	51	47	23	23
15	Pretended to be an animal or other non-human during sex (such as a pony or dog)	20	9	21	12	7	3
16	Have someone else pretend to be an animal or other non-human during sex (such as a pony or dog)	23	10	24	9	8	3
17	Deprive someone of oxygen for the purpose of sexual excitement	21	6	23	9	16	4
18	Been deprived (either by yourself or by someone else) of oxygen for the purpose of sexual excitement	13	23	13	21	6	17

Table 9. *Percent Endorsement of SM Fantasy Interest, SM Consenting Interest, SM Activities Performed by Gender (continued).*

	SM Fantasy Interest		SM Consenting Interest		SM Activities Performed	
	Males	Females	Males	Females	Males	Female
19 Engage in a rape fantasy as the perpetrator (Have my partner pretend they were unwilling to engage in sex but engage in a sex act anyway)	46	16	45	13	18	5
20 Engage in a rape fantasy as the victim (pretend I was unwilling to engage in sex but engage in a sex act anyway)	32	49	33	45	8	24

Ns range from 331 to 343.

(such as “spank someone during sex” or “restrain or tie someone up before/during sex”) than women (men averaged a rate of endorsement of 48%, women averaged 27%). Women were marginally more likely to endorse submissive items (such as “wear a blindfold before or during sexual activity” or “wear a gag or mask during sexual activity”), averaging 43% to the 37% endorsed by men. The most commonly endorsed items were “restrain or tie someone up before/during sex” (82% of men and 58% of women), “be restrained or tied up before/during sex” (68% of men and 83% of women), “wear a blindfold before or during sex” (60% of men and 69% of women), and “have someone else wear a blindfold before or during sex” (70% of men and 54% of women). The mean level of fantasy strength was similar to the coercive items ranging from 4.19 out of 10 (“have someone kiss your feet or shoes”) to 5.78 out of 10 (“be restrained or tied up before/during sex”). The rate at which participants endorsed fantasy strength is shown in Tables 10 and 11. These rates of interest are significantly higher than previous estimates of 20% of the population (Moser & Kleinplatz, 2006).

Table 10. *Percentage Endorsement of Fantasy Strength for those that Reported Interest in each SM Fantasy Interest Item.*

Item	Fantasy Strength									
	1	2	3	4	5	6	7	8	9	10
1 Wear a blindfold before or during sexual activity	7	12	16	9	15	11	9	8	2	9
2 Have someone else wear a blindfold before or during sexual activity	6	6	17	7	18	14	9	8	2	12
3 Spank someone during sex	8	12	16	9	14	10	13	6	4	7
4 Being spanked by someone else during sex	6	8	15	12	7	12	10	9	7	14
5 Spank or strike someone with a whip, crop, cane, or other implement	37	12	11	7	7	8	6	4	1	7
6 Spanked or struck by someone else with a whip, crop, cane, or other implement	6	10	19	13	10	10	11	7	3	13
7 Restrain or tie someone up before/during sex	5	7	12	10	16	12	11	9	5	11
8 Be restrained or tied up before/during sex	5	11	13	9	10	13	10	9	5	16
9 Have another person wear a gag or mask during sexual activity	7	7	17	12	17	12	12	5	3	11
10 Wear a gag or mask during sexual activity	11	14	18	11	4	8	10	7	1	16
11 Have someone kiss your feet or shoes	15	16	18	15	10	4	9	3	4	4
12 Kiss someone else's feet or shoes	10	18	13	17	11	8	10	4	4	7
13 Have someone else pretend to be your servant or slave	4	7	14	16	12	4	13	12	5	13
14 Pretend to be someone else's servant or slave	27	8	10	9	7	7	9	9	3	12
15 Pretended to be an animal or other non-human during sex (such as a pony or dog)	13	18	23	7	11	4	11	2	2	11
16 Have someone else pretend to be an animal or other non-human during sex (such as a pony or dog)	9	15	25	7	18	9	4	4	1	6

Table 11. *Percentage Endorsement of Fantasy Strength for those that Reported Interest in each SM Fantasy Interest Item (continued).*

Item	Fantasy Strength									
	1	2	3	4	5	6	7	8	9	10
17 Deprive someone of oxygen for the purpose of sexual excitement	16	18	11	16	11	5	11	0	2	11
18 Been deprived (either by yourself or by someone else) of oxygen for the purpose of sexual excitement	22	2	18	18	8	6	2	14	4	8
19 Engage in a rape fantasy as the perpetrator (Have my partner pretend they were unwilling to engage in sex but engage in a sex act anyway)	6	18	20	11	13	5	9	8	2	9
20 Engage in a rape fantasy as the victim (pretend I was unwilling to engage in sex but engage in a sex act anyway)	7	11	10	10	14	6	11	11	5	15

Ns vary between 51 and 240.

The SM consenting interest variable was generated by summing the answers given in response to the “I would like to do this act with a consenting person” items related to BDSM activities. The 20 item scale had excellent internal reliability ($\alpha = .88$). The items and item level results are reported in Table 8. The SM consenting interest was not skewed, with only 2% of respondents endorsing zero items (skew = .190, $SE = .130$; kurtosis = $-.796$, $SE = .259$). This may be because fewer individuals completed all of the items. Alternatively, placing the activity in context of consent may make respondents more comfortable with endorsing items. The response patterns were similar to SM fantasy interest. On average men endorsed more items than women (47% as opposed to 37%). On average, men endorsed more dominant items than women (53% as opposed to 30%). Average submissive item endorsement was approximately the same across the genders, with males endorsing 42% and women endorsing 44%. Mean fantasy

Table 12. *Percentage Endorsement of Fantasy Strength for those that Reported Interest in each SM Consenting Interest Item.*

Item	Fantasy Strength									
	1	2	3	4	5	6	7	8	9	10
1 Wear a blindfold before or during sexual activity	8	12	17	11	12	9	8	8	4	11
2 Have someone else wear a blindfold before or during sexual activity	7	9	16	9	15	11	9	9	3	11
3 Spank someone during sex	6	6	12	12	21	7	13	8	5	7
4 Being spanked by someone else during sex	12	9	9	12	12	7	9	6	8	15
5 Spank or strike someone with a whip, crop, cane, or other implement	7	14	17	10	13	9	6	8	2	13
6 Spanked or struck by someone else with a whip, crop, cane, or other implement	10	10	6	14	9	14	8	7	6	15
7 Restrain or tie someone up before/during sex	5	7	13	9	14	12	10	11	5	14
8 Be restrained or tied up before/during sex	4	12	11	9	13	10	8	10	6	17
9 Have another person wear a gag or mask during sexual activity	8	8	15	10	15	8	13	5	3	13
10 Wear a gag or mask during sexual activity	11	14	16	12	7	7	10	6	3	14
11 Have someone kiss your feet or shoes	18	16	13	13	11	7	8	6	2	5
12 Kiss someone else's feet or shoes	15	9	18	13	8	9	11	10	1	6
13 Have someone else pretend to be your servant or slave	8	7	13	10	13	8	12	10	5	14
14 Pretend to be someone else's servant or slave	11	8	12	10	14	6	13	8	4	14
15 Pretended to be an animal or other non-human during sex (such as a pony or dog)	13	20	21	5	10	7	10	2	2	11
16 Have someone else pretend to be an animal or other non-human during sex (such as a pony or dog)	13	16	15	12	19	4	7	3	1	7

Table 13. *Percentage Endorsement of Fantasy Strength for those that Reported Interest in each SM Consenting Interest Item (continued).*

Item	Fantasy Strength									
	1	2	3	4	5	6	7	8	9	10
17 Deprive someone of oxygen for the purpose of sexual excitement	24	23	6	6	11	8	8	3	3	6
18 Been deprived (either by yourself or by someone else) of oxygen for the purpose of sexual excitement	12	10	22	8	14	10	4	10	4	8
19 Engage in a rape fantasy as the perpetrator (Have my partner pretend they were unwilling to engage in sex but engage in a sex act anyway)	11	13	18	8	15	3	8	11	4	10
20 Engage in a rape fantasy as the victim (pretend I was unwilling to engage in sex but engage in a sex act anyway)	9	12	9	8	15	8	8	5	6	20

Ns vary between 51 and 245.

strength scores ranged from 3.96 for “deprive someone of oxygen for the purpose of sexual excitement” to 5.86 for “restrain or tie someone up before/during sex.” The rate at which participants endorsed fantasy strength is shown in Tables 12 and 13. SM consenting interest items appeared to be endorsed at a marginally higher rate than the SM fantasy interest questions. A possible explanation for this may be that people are more likely to admit to interest SM activities if the consenting nature of those activities is made concrete. Further, given the “power exchange” interpersonal dynamic involved in these activities it might be that enjoyment for most participants requires an interested partner. Again, these estimates are significantly higher than previous estimates, such as those by Moser and Kleinplatz, (2006).

The 20 item SM activities scale was generated by summing the answers given in response to the “I have done this act” or “I have done this act with another person” for the items related to

sadomasochistic activities. The scale demonstrated excellent internal reliability, $\alpha = .89$. The SM activities scale showed a higher level of positive skew than the other SM interest scales, but not as much as the coercive sexual activity scales, with 19% of respondents endorsing no items and a skew of $.787$ ($SE = .130$) and a kurtosis of $-.186$ ($SE = .259$). Men and women endorsed approximately the same overall number of items. Men endorsed more dominant items than women (30% as opposed to 18%). Women and men endorsed approximately the same number of submissive activities as men (28% for women and 24% for men). These endorsement rates are significantly higher than previous research, such as the 8% figure reported by Richter and colleagues (2008). There is a significant drop in endorsement rates between the SM interest scales versus SM activity scales. This is may be due to the stigmatized nature of some of these activities as well as the potential difficulty of finding a willing partner.

As with the coercive sexual scales, the SM activities scale was positively skewed with 23% individuals endorsed no practice of SM behaviors. Because of the extensive skew, an inverse transformation was applied but made little difference to the degree of skew and the three level grouping approach was included in analyses. “High SM activity” was defined by endorsing eleven or more items, “medium SM activity” for those endorsing between 1 and 10 items, and “no SM activity” for the remaining individuals denying any such activity.

To create the juvenile antisocial behavior scale one point was scored for each positive answer for “I have done this,” “I have been arrested for this,” and “I have been convicted for this” before 18 years old. The adult antisocial behavior subscale was created in the same way for items after 18 years old. Items that did not apply after the age of 18 years were not included in the questionnaire (for example “Did you run away from home?”). Adding the two subscales generated the lifelong antisocial behavior scale. The 33 item juvenile antisocial behavior

subscale had a Cronbach's alpha of .77. Items were deleted from the analysis if no participants endorsed them, if the item showed a negative corrected item total correlation, or had values approaching zero. The 26 item adult antisocial behavior subscale had a more modest internal reliability, $\alpha = .66$. As with the adolescent scale, items were eliminated due to a lack of endorsement or a negative corrected item total correlation. A composite 59 item lifelong antisocial behavior subscale had good internal consistency, $\alpha = .82$. Rates of endorsement for the juvenile scale were somewhat higher than expected with only 7% of participants endorsing no items and 54% endorsing at least three items. As a loose comparison, conduct disorder diagnosis requires at least 3 of 9 symptoms exhibited over a 6 month period and the lifetime estimate of conduct disorder prevalence is around 10% (Kessler, Berglund, Demler, Jin, Merikangas, & Walters, 2005). Adult endorsement of antisocial behavior was significantly lower than juvenile levels, with fewer than a third (28%) endorsing none or only one item and 29% endorsing more than three items. Further psychometric data are reported in Table 3.

The Sensation Seeking Scale (SSS V) demonstrated good internal consistency, $\alpha = .82$, consistent with previously published alphas of .83 to .86 (Zuckerman, 1994). SSS V subscales demonstrated modest internal reliability, α s ranging from .58 to .79, which are comparable with published data (see Table 3). The 10 item IPIP personality scales measuring openness to experience and neuroticism demonstrated good internal reliabilities, $\alpha = .89$ and .83 respectively. The Interpersonal Reactivity Index (IRI) also demonstrated good reliability, $\alpha = .81$. Further psychometric data are displayed in Table 3.

The 14 item Subtle Rape Myth Acceptance Scale SRMAS had a Cronbach's alpha of .81, slightly higher than previous reliability estimates of .76 (Cochran, Quirk, & Meadows, 2004) and .75 (Pless, Meadows, Sobanski, Campeau, Cunningham, & Hoskins, 2006). The SRMAS mean

in the current study (32.50, SD = 10.49), was consistent with previously reported scores, M = 27.06, from Pless et al. (2006) and, M = 32.17, from Pless and colleagues (2005).

The abbreviated 45 item Externalizing Inventory scale (the summation of the problematic impulsivity and irresponsibility subscales) demonstrated very good internal reliability, $\alpha = .88$. Given that this was an abbreviated scale, no previous psychometric data were available. Both subscales demonstrated good reliability, $\alpha = .85$ (problematic impulsivity), $\alpha = .83$ (irresponsibility). Slightly better reliability, $\alpha = .93$, was reported for each scale by Krueger and colleagues (2007). Further psychometric data are displayed in Table 3.

Hypothesis Testing Results

Hypothesis 1

It was hypothesized that a greater self reported interest in SM behaviors would be only weakly positively correlated with reported coercive sexual interest. Coercive sexual fantasy showed a significant positive relationship with interest in sadomasochistic fantasy, $r = .42, p < .001$, and interest in participating in consensual SM activities with others, $r = .33, p < .001$. Coercive sexual intent showed weak correlations with sadomasochistic fantasy and interest in participating in consensual SM activities (larger $r = .19, p < .001$). Coercive sexual behavior showed mild positive correlations with fantasizing and interest in participating in SM activities (larger $r = .11, p = .04$).

Due to the high level of skew in the three coercive sexual interest variables and in the SM activities variable, the three level versions were used to evaluate the relationships between them. In this format correlations were calculated using Kendall's T . Kendall's T is a non-parametric test of correlation, used to compare two ordinal variables. Kendall's T was used as it was more

appropriate for the variables that appeared to be more like categorical than continuous variables due to their high level of skew and because Kendall's T does not assume a normal distribution. The relationship between coercive sexual fantasy and coercive sexual intent was strong ($T = .42, p < .001$). Coercive fantasy was also moderately related to coercive behavior ($T = .29, p < .001$). The relationship between coercive sexual intent and coercive sexual behavior was weak ($T = .15, p = .02$). The relationships between performance of sadomasochistic behaviors and coercive fantasy and intent were negligible (larger $T = .07, ns$), but there was a weak relationship between SM activities and coercive sexual behavior ($T = .16, p = .001$). These relationships are reported in Table 14.

Hypothesis 2

Higher levels of coercive sexual interest and behavior were expected to correlate with higher levels of sensations seeking, previous antisocial behavior, and externalizing behavior.

Hypothesis 2a

Sensation seeking and antisocial behavior were hypothesized to be better predictors of interest in performing coercive sexual acts than reported interest in SM sexual activities. The strongest positive correlations with the coercive sexual interest variables were hypothesized to be sensation seeking and previous antisocial behavior. This was not supported. The relevant correlations are displayed in Table 14. Sensation seeking was largely unrelated to coercive sexual fantasy, coercive sexual intent, or coercive sexual behavior, largest $r = .10, ns$. Juvenile and lifetime antisocial behavior were also weakly correlated with the relevant coercive sexual scales, largest $r = .18, p = .003$.

Hypothesis 2b

Externalizing behavior was expected to show a strong positive correlation with coercive sexual interest. The total externalizing inventory scale showed only small to modest positive correlations with coercive sexual fantasy, coercive sexual intent, and coercive sexual behavior, largest $r = .17, p = .001$. These results are displayed in Table 14.

Hypothesis 3

Greater reported interest in SM activities was expected to demonstrate a unique pattern of correlates including positive correlations with sensation seeking (this relationship was hypothesized to be positive but weaker than the hypothesized correlation between sensation seeking and coercive sexual interest), higher levels of reported trait openness, higher levels of reported externalizing behaviors (this relationship was expected to be weaker than that hypothesized between externalizing behavior and coercive sexual interest).

Hypothesis 3a

Sensation seeking was expected to correlate with SM interests and behavior. This relationship was hypothesized to be positive but weaker than the correlation between sensation seeking and coercive sexual interest. This hypothesis was only partially supported. Sensation

Table 14. *Correlations between Sensation Seeking Scale, Juvenile Antisocial Behavior, Total Antisocial Behavior, Openness to Experience, Interpersonal Reactivity Index, Subtle Rape Myth Assessment Scale, Externalizing Inventory, SM Fantasy Interest, SM Consenting Interest, SM Activities, Coercive Sexual Fantasy, Coercive Sexual Intent, and Coercive Sexual Behavior*

	SSSV	Juvenile ASB	Total ASB	O	N	IRI	SRMAS	EI	SMI	SMCI	SMA	CSF	CSI	CSB
SSSV	.82													
JASB	.29	.77												
TASB	.36	.92	.82											
O	.11	-.10	-.11	.89										
N	.19	.01	.04	.18	.83									
IRI	-.07	-.04	-.05	-.11	.15	.81								
SRMAS	.03	.21	.24	-.05	-.15	-.11	.81							
EI	.24	.48	.50	-.33	-.13	-.01	.13	.88						
SMI	.13	.04	.06	-.03	.14	.09	-.02	.14	.84					
SMCI	.20	.12	.15	-.01	.17	.08	-.01	.19	.88	.88				
SMA	.21	.12	.16	.10	.17	-.01	.04	.15	.41	.39	.89			
CSF	.03	.12	.14	-.06	.04	-.07	.12	.17	.42	.33	.07	.91		
CSI	.10	.13	.18	-.01	.00	-.11	.29	.15	.19	.15	.05	.42	.96	
CSB	.09	.15	.15	-.01	.01	-.12	.18	.17	.11	.10	.16	.29	.15	.80

SSSV = Sensation seeking ($N=313$), JASB = Juvenile Antisocial behaviors ($N=266$), TASB = Total Antisocial behaviors ($N=266$), O = Openness to Experience ($N=341$), N = Neuroticism ($N=345$), IRI = Interpersonal Reactivity Index ($N=354$), SRMAS = Subtle Rape Myth Assessment Scale ($N=346$), EI = Externalizing Inventory ($N=347$), SMI = SM Interest ($N=354$), SMCI = SM Consenting Interest ($N=354$), SMA = SM Activities ($N=354$), CSF = Coercive Sexual Fantasy ($N=354$), CFI = Coercive Sexual Intent ($N=354$), and CSB = Coercive Sexual Behavior ($N=354$). $r_s > .12$, $p < .05$; $r_s > .16$, $p < .01$. Correlations for CSFxSMA, CSIxSMA, CSIxCSF, CSBxSMA, CSBxCSF, and CSBxCSI are reported using Kendall's T due to their level of skew.

seeking positively correlated with the SM interest and behavior scales, largest $r = .21, p < .001$, but the relationship between sensation seeking and SM interests was stronger than the relationship between sensation seeking and coercive sexual interest. These relationships are displayed in Table 14. Two of the sensation seeking subscales (disconstraint and experience seeking) appeared to account for the majority of this relationship, larger $r = .27, p < .001$. The correlations between the sensation seeking subscales and the SM interest and coercive sexual interest variables are displayed in Table 15.

Table 15. *Correlations Between Sensation Seeking Subscales, SM Fantasy Interest, SM Consenting Interest, SM Activities, Coercive Sexual Fantasy, Coercive Sexual Intent, and Coercive Sexual Behavior*

	SSS V	TAS	Dis	ES	BS
SSS V	.82				
TAS	.71	.79			
Dis	.72	.26	.69		
ES	.72	.31	.48	.61	
BS	.60	.21	.28	.29	.58
SMI	.13	-.02	.13	.18	.11
SMCI	.20	.04	.22	.21	.13
SMA	.21	.10	.16	.27	.07
CSF	.03	-.02	.01	-.00	.14
CSI	.10	.07	.06	.01	.13
CSB	.09	.00	.16	.09	.01

SSSV = Sensation seeking ($N=313$), TAS = Sensation Seeking Thrill and Adventure Seeking Subscale ($N=313$), Dis = Sensation Seeking Disinhibition Subscale ($N=315$), ES = Sensation Seeking Experience Seeking Subscale ($N=313$), BS = Sensation Seeking Boredom Susceptibility Subscale ($N=313$), SMI = SM Interest ($N=354$), SMCI = SM Consenting Interest ($N=354$), SMA = SM Activities ($N=354$), CSF = Coercive Sexual Fantasy ($N=354$), CFI = Coercive Sexual Intent ($N=354$), and CSB = Coercive Sexual Behavior ($N=354$).

Hypothesis 3b

Higher levels of the SM interest variables were expected to correlate with higher levels of trait openness to experience. This was not supported. SM fantasy interest, SM consenting interest and SM activities all produced negligible correlations with openness (highest $r = .10$, *ns*). These results are presented in Table 14.

Hypothesis 3c

Externalizing behavior was expected to show a modest correlation with SM interest. This hypothesis received some support as externalizing behavior showed small positive correlations with SM fantasy interest, SM consenting interest, and SM activities, $r_s = .14$ ($p = .01$), $.19$ ($p = .19$), and $.15$ ($p = .005$) respectively. These results are displayed in Table 14.

Additional Hypotheses

Hypothesis 4

Endorsement of traditional gender roles and beliefs assigning blame to victims of sexual assault were hypothesized to correlate with higher self report of coercive sexual interest but not greater interest in SM activities. This hypothesis was supported. As shown in Table 14, rape myth adherence showed small to moderate positive correlations with coercive sexual fantasy, $r = .12$, $p = .03$, coercive sexual intent, $r = .29$, $p < .01$, and coercive sexual behavior, $r = .18$, $p < .01$. The second part of this hypothesis was that rape myth attitudes would show specific relationships with coercive sexual variables but not consenting SM sexuality. Rape myth acceptance was largely independent from reported levels of deviant sexual interest variables including SM fantasy interest, SM consenting interest, and SM activities, largest $r = .04$, *ns*.

Hypothesis 5

Individuals with higher empathy were expected to be less likely to be interested by either form of SM sexual material. This was not supported. SM fantasy interest, SM consenting interest, SM activities, coercive sexual fantasy, and coercive sexual behavior all produced non-significant correlations with empathy, largest .09, *ns*. Coercive sexual intent showed a small negative correlation with empathy ($r = -.11, p = .04$). These correlations are presented in Table 14.

Hypothesis 6

Individuals with high sensation seeking traits were expected to report higher frequencies of prior antisocial behavior as a child and over their lifetime. Sensation seeking was correlated with both juvenile and lifetime antisocial behavior, $r_s = .36, p < .001$ and $.29, p < .001$, respectively. The subscales of sensation seeking also correlated moderately with juvenile and lifelong antisocial behavior. The largest was the disinhibition subscale which correlated with juvenile antisocial behavior, $r = .29, p < .001$, and lifelong antisocial behavior, $r = .37, p < .001$. The weakest was thrill and adventure seeking which correlated with juvenile and lifelong antisocial behavior, $r = .12, ns$, and, $r = .18, p = .006$, respectively.

Hypothesis 7

Sensation seeking and empathy were expected to interact such that those reporting both high sensation seeking and high empathy would report greatest interest and engagement in SM behaviors. Further, those reporting high sensation seeking and low empathy were hypothesized to report greater interest in coercive sexual behavior.

In order to investigate the first part of the above hypothesis, that high sensation seeking and empathy were expected to interact to predict high interest in SM behavior when participant reported both high sensation seeking and empathy each of the three SM interest variables (SM fantasy interest, SM consenting interest, and SM activities) were regressed on sensation seeking and empathy in the first stage of hierarchical regression analyses followed by the multiplicative interaction term comprised of sensation seeking multiplied by empathy. As detailed below, in all three models, sensation seeking successfully predicted SM interest and activity and the interaction did not. Empathy provided a unique contribution in predicting the two SM interest variables, but not participation in SM activities. Complete results are presented in Table 16.

SM fantasy interest was regressed on sensation seeking and empathy scores and together they accounted for 3% of the variance in SM fantasy interest, $F(2,310) = 4.75, p = .009$.

Sensation seeking demonstrated a significant independent effect on SM interest, $\beta = .13, t(311) = 2.45, p = .01$, as did empathy, $\beta = .12, t(311) = 2.11, p = .04$. The interaction term did not account for additional variability.

Table 16. *Predicting SM interest, SM Consenting, and SM Activities, using Sensation Seeking, Empathy, and Sensation Seeking- Empathy Interaction.*

Predictor	SM Interest		SM Consenting		SM Activities	
	ΔR^2	β	ΔR^2	β	ΔR^2	β
Step 1	.03*		.06**		.04**	
Empathy		.12*		.13*		.00
Sensation Seeking		.13*		.21**		.21**
Step 2	.00		.00		.01	
Interaction Term		-.08		-.11		-.52

$N = 313$ for all comparisons. * denotes significance at the $p < .05$ level. ** denotes significance at the $p < .001$ level.

This pattern continued when SM consenting interest was regressed on sensation seeking and empathy scores with the two variables accounting for 6% of the variance in SM consenting interest. Again, the overall model was significant, $F(2,310) = 8.36, p < .001$. Sensation seeking, $\beta = .21, t(311) = 3.80, p < .001$, and empathy, $\beta = .13, t(311) = 2.31, p = .02$, both demonstrated significant unique contributions but the interaction term did not account for significant additional variability.

The SM activities scale was also regressed on sensation seeking and empathy and then the interaction term. Sensation seeking and empathy together accounted for 4% of the variance in SM activities. This was significant, $F(2,310) = 7.00, p = .001$. Sensation seeking demonstrated a significant effect on SM activities, $\beta = .21, t(311) = 3.74, p < .001$, whereas in this analysis, empathy did not, $\beta = .003, t(311) = 0.06, ns$. The addition of the interaction term accounted no significant additional variability.

In order to test the second part of the above hypothesis, that those with high sensation seeking and low empathy would report greater interest in coercive sexual behaviors, the three coercive sexual interest variables (coercive sexual fantasy, coercive sexual intent, and coercive sexual behavior) were regressed on sensation seeking, empathy, and the interaction term in a series of regression analyses. As detailed below, no support was found for the hypothesized interactions. Complete results are presented in Table 17.

When coercive sexual fantasy was also regressed on sensation seeking and empathy and the interaction term, sensation seeking and empathy only accounted for .7% of the variance in coercive sexual fantasy. This was not significant, $F(2,310) = 1.15, p = .32$. Neither sensation seeking nor empathy independently demonstrated a significant effect on coercive sexual fantasy. The addition of the interaction term did not account for any meaningful additional variability.

Table 17. *Predicting Coercive Sexual Fantasy, Coercive Sexual Intent, and Coercive Sexual Behavior using Sensation Seeking, Empathy, and Sensation Seeking-Empathy Interaction.*

Predictor	CSF		CSI		CSB	
	ΔR^2	β	ΔR^2	β	ΔR^2	β
Step 1	.01		.01		.01	
Empathy		-.08		-.06		-.04
Sensation Seeking		.03		.10		.09
Step 2	.00		.00		.00	
Interaction Term		-.20		-.06		.20

N = 313 for all comparisons. * denotes significance at the $p < .05$ level. ** denotes significance at the $p < .01$ level.

Continuing the analysis, coercive sexual intent was regressed on sensation seeking and empathy and the interaction term. The overall model only accounted for 1% of the variance in coercive sexual intent. This was not significant, $F(2,310) = 2.21, p = .11$. Sensation seeking, and empathy failed to demonstrate a significant effect on coercive sexual intent and the addition of the interaction term did not account for any additional variability.

Coercive sexual behavior was regressed on sensation seeking and empathy scores and the interaction term, but the overall model accounted for only accounted for 1% of the variability in coercive sexual behavior. This was not significant, $F(2,310) = 1.50, p = .22$. Sensation seeking, empathy and the addition of the interaction term failed to show a significant effect on coercive sexual behavior.

Hypothesis 8

Sensation seeking and neuroticism were expected to interact such that higher levels of sensation seeking would predict coercive sexual interest when coupled with higher levels of neuroticism. Taken together, sensation seeking and neuroticism failed to predict any of the three

coercive sexual interest measures. There was no evidence of the interaction effect. Coercive sexual fantasy was regressed on sensation seeking and neuroticism in additional hierarchical models with the interaction term added at the last step. The overall model accounted for only 0.3% of the variance in coercive sexual fantasy, $F(2, 305) = .53, p = .59$. The regression of coercive sexual intent on sensation seeking and neuroticism and an interaction term comprised of sensation seeking multiplied by neuroticism provided the same result. The overall model only accounted for 1% of the variance in coercive sexual intent, $F(2, 305) = 1.65, p = .19$. Finally, coercive sexual behavior was regressed on sensation seeking and neuroticism along with the interaction term. Similar results were evident. The complete model accounted for only 1% of the variance in coercive sexual intent, $F(2, 305) = 1.37, p = .26$. These data are summarized in Table 18.

Table 18. *Predicting Coercive Sexual Fantasy, Coercive Sexual Intent, and Coercive Sexual Behavior using Sensation Seeking, Neuroticism, and Sensation Seeking-Neuroticism Interaction.*

Predictor	CSF		CSI		CSB	
	ΔR^2	β	ΔR^2	β	ΔR^2	β
Step 1	.00		.01		.01	
Sensation Seeking		.03		.10		.09
Neuroticism		.04		-.02		-.00
Step 2	.00		.00		.00	
Interaction Term		.40		-.08		-.22

$N = 308$ for CSI, $N = 305$ for other comparisons. * denotes significance at the $p < .05$ level. ** denotes significance at the $p < .01$ level.

Hypothesis 9

Externalizing behavior was expected to show a strong positive correlation with sensation seeking and with juvenile antisocial behavior. This hypothesis was supported as the total externalizing inventory scale showed a modest positive correlation with sensation seeking, $r =$

.24, $p < .001$, and a large correlation with juvenile antisocial behavior, $r = .48$, $p < .001$. These results are displayed in Table 14.

Additional Analyses

Over the course of the current study a large number of traits were examined independently and in conjunction for their capacity to predict coercive sexual behavior. Given the large range of variables used and the mixed support available for the hypotheses initially advanced, I sought to determine which variables would prove to be the strongest predictors of sadomasochistic and coercive sexual interest and behaviors by including the available, relevant variables.

Coercive sexual behavior was predicted using a range of candidate traits, attitudes, and behaviors in simultaneous regression. SM activities, coercive sexual intent, sensation seeking, juvenile antisocial behavior, lifelong antisocial behavior, openness to experience, neuroticism, empathy, rape myth acceptance, and externalizing behaviors were entered as predictors in the same stage. The overall model accounted for 18% of the variability in coercive sexual behavior, $F(10,215) = 4.64$, $p < .001$. Only SM activities, $\beta = .28$, $t(215) = 4.36$, $p < .001$, and coercive sexual intent, $\beta = .21$, $t(215) = 3.18$, $p = .002$, demonstrated unique and significant associations with performed coercive sexual behavior. Sensation seeking, juvenile antisocial behavior, lifelong antisocial behavior, openness to experience, neuroticism, empathy, and externalizing behaviors did not, although rape myth acceptance approached significance within the overall model, $\beta = .12$, $t(215) = 1.73$, $p = .08$. Further details are reported in Table 19.

Because of the importance of coercive sexual intent, for both predicting coercive sexual behavior and its theoretic relevance, I chose to investigate which of the candidate variables available

would be most useful in predicting it. A variety of likely traits, attitudes and behaviors were used to predict coercive sexual intent using another simultaneous regression with the intention of determining which factors would prove the most successful. SM fantasy interest, sensation seeking, juvenile antisocial behavior, lifelong antisocial behavior, openness to experience, neuroticism, empathy, rape myth acceptance, and externalizing behaviors were all entered together and their overall and relative effects compared. Together they successfully accounted for 13% of the variability in coercive sexual intent, $F(9,216) = 3.70, p < .001$. Only SM fantasy interest, $\beta = .19, t(216) = 2.92, p = .004$, and rape myth acceptance, $\beta = .25, t(216) = 3.73, p < .001$, emerged as unique predictors of coercive sexual intent. Sensation seeking, juvenile antisocial behavior, lifelong antisocial behavior, openness to experience, neuroticism, empathy,

Table 19. *Predicting Coercive Sexual Behavior using SM Activities, Coercive Sexual Intent, Sensation Seeking, Juvenile and Lifelong Antisocial Behavior, Openness to Experience, Neuroticism, Empathy, Rape Myth Acceptance, and Externalizing Behavior*

Predictor	CSB	
	ΔR^2	β
Total Model	.18**	
SM Activities		.29**
Coercive Sexual Intent		.21*
Sensation Seeking		-.02
Juvenile Antisocial Behavior		.24
Lifelong Antisocial Behavior		-.22
Openness to Experience		-.02
Neuroticism		.00
Empathy		-.03
Rape Myth Acceptance		.12
Externalizing Behavior		.06

$N = 226$. * denotes significant at the $p < .01$ level. ** denotes significant at the $p < .001$ level.

Table 20. *Predicting Coercive Sexual Intent using SM Fantasy Interest, Sensation Seeking, Juvenile and Lifelong Antisocial Behavior, Openness to Experience, Neuroticism, Empathy, Rape Myth Acceptance, and Externalizing Behavior*

Predictor	CSB	
	ΔR^2	β
Total Model	.13**	
SM Fantasy Interest		.19*
Sensation Seeking		.01
Juvenile Antisocial Behavior		-.13
Lifelong Antisocial Behavior		.11
Openness to Experience		.04
Neuroticism		.10
Empathy		-.06
Rape Myth Acceptance		.25**
Externalizing Behavior		.12

N = 226. * denotes significant at the $p < .01$ level. ** denotes significant at the $p < .001$ level.

and externalizing behaviors did not contribute significant, unique variance towards coercive sexual intent. Further details are reported in Table 20.

Gender Differences

Because of the difference between males and females in reported levels of coercive sexual interest and interest in SM activities, some of the key analyses were repeated with the participants separated by their gender. Some differences between genders were evident. These relationships are displayed in Tables 21 and 22. Differences between the correlations for each group were generated with Fisher's r to z transformation. The degree of difference in the relationship between predictors across gender indicates more than a mean difference in predictors, it indicates that the structure of those relationships is different across gender. Some of these differences, particularly those involving coercive sexual behavior could be partially due to

the effect of range restriction. There were fewer female participants and the female participants endorse fewer items related to coercion. Range restriction would reduce the relationship between variables when few cases were available (such as females admitting to coercive sexual behavior). Gender differences indicate that the factors that contribute to sadomasochistic and coercive sexual behavior may be different for men and women. This is more likely when the correlations changed direction, rather than merely in strength.

The relationship between sensation seeking and the SM interest variables was stronger for women than for men, larger women's $r = .28, p = .007$, men's $r = .14, p = .04$. The difference between these correlations was significant at the $p = .04$ level. The same was true for the correlations between empathy and the SM interest variables, larger women's $r = .30, p = .003$, men's larger $r = .09, ns$. This difference was also significant at the $p = .04$ level. These differences suggest that the origin of interest in SM may differ across the genders. The relationship between sensation seeking and SM interest for women, may indicate that SM interests in women are driven more by interest in new and exciting activities than they are in men. Confusingly, more empathic women are more likely to be interested in SM than less empathic women. This may be related to Yost's (2007) findings that SM participants that have a strong SM role preference are more focused on their partners' pleasure than those that alternate between roles. Interestingly, it may provide weak evidence for the suggestion that female SM aficionados may be more likely to be brought into the interest by partners (as describe by Breslow et al. 1986, above) those that are more empathic may be more likely to try SM at the behest of a partner and then come to enjoy it.

Table 21. *Correlations between Sensation Seeking Scale, Juvenile Antisocial Behavior, Total Antisocial Behavior, Openness to Experience, Interpersonal Reactivity Index, Subtle Rape Myth Assessment Scale, Externalizing Inventory, SM Fantasy Interest, SM Consenting Interest, SM Activities, Coercive Sexual Fantasy, Coercive Sexual Intent, and Coercive Sexual Behavior in Men.*

	SSSV	Juvenile ASB	Total ASB	O	N	IRI	SRMA S	EI	SMI	SMCI	SMA	CSF	CSI	CSB
SSSV	.82													
JASB	.28	.78												
TASB	.37	.93	.83											
O	.12	-.12	-.11	.90										
N	.14	-.02	.02	.14	.81									
IRI	-.03	-.01	-.04	-.13	.23	.79								
SRMAS	.03	.21	.25	.02	-.09	-.07	.79							
EI	.24	.52	.52	-.35	-.18	.01	.12	.88						
SMI	.06	-.02	.02	-.02	.09	.07	-.05	.09	.90					
SMCI	.14	.08	.10	.00	.12	.09	-.03	.13	.87	.90				
SMA	.20	.12	.17	.08	.16	-.07	.09	.12	.38	.35	.90			
CSF	-.03	.09	.11	-.10	-.02	.00	.14	.16	.43	.31	.05	.91		
CSI	.08	.10	.17	-.03	-.06	-.09	.35	.12	.16	.11	.11	.48	.96	
CSB	.08	.16	.16	-.03	-.02	-.04	.26	.15	.10	.09	.30	.25	.29	.81

SSSV = Sensation seeking ($n=214$), JASB = Juvenile Antisocial behaviors ($n=185$), TASB = Total Antisocial behaviors ($n=185$), O = Openness to Experience ($n=239$), N = Neuroticism ($n=241$), IRI = Interpersonal Reactivity Index ($n=248$), SRMAS = Subtle Rape Myth Assessment Scale ($n=245$), EI = Externalizing Inventory ($n=247$), SMI = SM Interest ($n=248$), SMCI = SM Consenting Interest ($n=248$), SMA = SM Activities ($n=248$), CSF = Coercive Sexual Fantasy ($n=248$), CFI = Coercive Sexual Intent ($n=248$), and CSB = Coercive Sexual Behavior ($n=248$). $r_s > .14$, $p < .05$; $r_s > .19$, $p < .01$.

Table 22. *Correlations between Sensation Seeking Scale, Juvenile Antisocial Behavior, Total Antisocial Behavior, Openness to Experience, Interpersonal Reactivity Index, Subtle Rape Myth Assessment Scale, Externalizing Inventory, SM Fantasy Interest, SM Consenting Interest, SM Activities, Coercive Sexual Fantasy, Coercive Sexual Intent, and Coercive Sexual Behavior in Women.*

	SSSV	Juvenile ASB	Total ASB	O	N	IRI	SRMA S	EI	SMI	SMCI	SMA	CSF	CSI	CSB
SSSV	.79													
JASB	.26	.79												
TASB	.32	.90	.83											
O	.09	-.09	-.19	.89										
N	.23	.00	.01	.19	.84									
IRI	-.01	-.02	.01	.02	.21	.80								
SRMAS	.01	.22	.23	-.18	-.24	-.20	.84							
EI	.14	.33	.41	-.35	-.16	.10	.17	.88						
SMI	.23	.12	.11	-.13	.13	.30	.03	.21	.89					
SMCI	.28	.17	.23	-.13	.11	.26	.03	.26	.91	.88				
SMA	.23	.09	.12	.13	.17	.16	-.06	.19	.51	.53	.89			
CSF	.00	.07	.05	-.10	-.08	.05	.09	-.01	.32	.25	.14	.84		
CSI	.05	.18	.17	-.08	-.05	.09	.24	.18	.28	.25	-.03	.30	.94	
CSB	.01	-.05	-.07	.03	-.11	-.08	-.12	.12	-.02	.00	.00	.12	-.05	.57

SSSV = Sensation seeking ($n=94$), JASB = Juvenile Antisocial behaviors ($n=77$), TASB = Total Antisocial behaviors ($n=77$), O = Openness to Experience ($n=96$), N = Neuroticism ($n=99$), IRI = Interpersonal Reactivity Index ($n=100$), SRMAS = Subtle Rape Myth Assessment Scale ($n=98$), EI = Externalizing Inventory ($n=100$), SMI = SM Interest ($n=100$), SMCI = SM Consenting Interest ($n=100$), SMA = SM Activities ($n=100$), CSF = Coercive Sexual Fantasy ($n=100$), CFI = Coercive Sexual Intent ($n=100$), and CSB = Coercive Sexual Behavior ($n=100$). $r_s > .22, p < .05$; $r_s > .28, p < .01$.

The relationship between participation in coercive sexual behavior and SM activities was strong for men, $r = .30, p < .001$, but not seen among women, $r = .003, ns$. The difference was significant at the $p = .005$ level. Coercive sexual fantasy and coercive sexual intent were more strongly associated for men $r = .48, p < .001$, than women, $r = .30, p = .002$, (difference significant at the $p = .04$ level). Coercive sexual behavior was positively correlated with rape myth acceptance for men $r = .26, p < .001$, but was weakly negatively correlated among women, $r = -.12, ns$. Coercive sexual intent was also much more effective (significant at the $p = .001$ level) for predicting coercive behavior in men, $r = .28, p < .001$ than in women, $r = -.03, ns$. The difference in relationship between coercive sexual behavior and SM activities appears the most likely candidate for a range restriction effect as few women endorsed participation in coercive sexual behavior.

These data indicate not only that coercive sexual fantasy has a stronger effect on intent to coerce others for men but that coercive intent, rape myth adherence and other deviant sexual behavior are more powerful predictors of sexual acting out for men than for women. This may indicate a socialization effect; men may be more socialized to believe that it is acceptable to wish to coerce others into sexual behavior and to see sexual interactions as a confrontational or competitive “zero-sum game” whereas women, even women with higher levels of coercive sexual interest may have to overcome higher barriers of socialization in order to progress to action. Additionally, it may speak to higher levels of general sexual arousal in men. On average men tend to possess higher sex drives than women and higher levels of participation in coercive activities. These higher levels of participation in both domains (and greater social acceptability of men’s sexuality) may be the cause of their connection. Further, the stronger relationship between fantasy and intent as well as between intent and behavior speaks to greater perceived

entitlement to sexual activity. This idea is illustrated by the gender differences between rape myth adherence and coercive behavior. The higher endorsement of rape myths leads to greater sexual acting out in men. In women rejection of traditional images of women as passive targets of sexual interest and acknowledgment of their sexual agency may lead them to act more like men in terms of perpetration of coercive sexual behavior.

CHAPTER IV

DISCUSSION

Within Western culture, there are still strong taboos regarding sexual behavior and sexual interest. As a result, sexual behavior, particularly unusual sexual behavior, has long been a neglected area within psychology. Although studies have linked deviant sexual arousal to criminal sexual conduct, it is still an under-investigated area. Many individuals engaging in SM practices appear to be directed by what might be termed sadomasochistic deviant sexual arousal, which is conceptually distinct from coercive activity. Further, those engaged in SM sexual behaviors do not appear to be experiencing symptoms of psychopathology above base rate levels. The goal of this study was to differentiate between these two forms of arousal using a variety of personality, behavior, and attitude variables.

Partial support was found for the overarching hypothesis that SM sexual interest is distinct from the more disturbing violative nature of coercive sexual arousal. Rape myth attitudes and sensation seeking were successful in differentiating SM from coercive sexual interest. Externalizing behavior, openness to experience, and antisocial behavior failed to differentiate between SM and coercive interests. Although SM interests were related to coercive interest they did not predict reported acts of sexual coercion and coercive sexual interest did not predict engaging in SM activities. However, the significant positive correlations between coercive and sadomasochistic sexual behavior suggests shared underlying cause(s).

Representativeness and Validity of the Sample

Nearly seven hundred participants accessed the survey and completed the first page of items. There is no way to evaluate the nature of respondents versus the individuals who saw a post/invite but did not participate. However, of those who began the study, 53 percent completed

and provided usable data. Because the demographic data were collected at the end of the survey, it was not possible to compare those that completed the survey and those that did not based on these variables. Many of the participants were U.S. citizens (as would be expected from posting the survey on English-speaking websites that cater mainly to North Americans), but there were a significant number of participants of other nationalities. Notably, many participants who otherwise completed the study did not complete the nationality item on the last page, possibly because of concerns about their anonymity. Participants for this study were recruited from a variety of different websites. Because of the deliberate lack of tracking data, it is impossible to tell where exactly the participants saw the advertisement for the study, making further analysis of subject recruitment impossible. This was a deliberate design choice to protect the confidentiality of the participants. Given that many of the sites that gave permission were psychological study recruitment sites, it is likely that many of the participants came from them. However, targeted forums represented a variety of interests including extreme sports, current affairs, and books, as well as general interest and “social news” sites. As such, efforts were made to reach a wide range of people with a variety of interests, in an effort to improve the generalizability of results. In keeping with this, sites related to sex or sadomasochism were not approached. Although web based data collection limits the participant pool to those with access to the Internet, which is likely to vary based on location and economic means, increasing access to the Internet has significantly reduced this concern. This is balanced against the fact that it provides access to a population beyond the experimenter’s geographical area. It has been shown that web based surveys demonstrate as good, or better rates of participation as face to face or pencil and paper research (Bandilla, Bosnjak, & Altdorfer, 2003; Cobanoglu, Warde, & Moreo, 2001; Denscombe, 2006; Deutskens, de Ruyter, Wetzels, 2006; McCabe, 2004). Further, the large number of

participants who can be accessed increases the statistical power of such studies.

In contrast to many university-based studies, nearly three quarters of the sample were male. Many of them were older, predominantly Caucasian, and comparatively highly educated. Previous studies have shown that participants in SM activities are frequently more highly educated than the general population (Sandnabba et al., 1999). Whereas, data from this study are partially consistent with such findings, no effort was made in this study to determine base rate levels of SM and coercive behaviors in the broader population.

Response Patterns

The candor with which participants appear to have responded is significant and this is evident in the rate of endorsement of social stigmatized items. As noted above, previous studies (Cobanoglu, Warde & Moreo, 2001) have shown that Internet based studies have higher rates of responding and as good or better validity compared to pen and paper, fax, and mail based surveys. Additionally, there are several reasons to believe that participants may have responded honestly in the current study. For example, many participants did not provide demographic information, possibly out of concerns for anonymity. Although far from definitive, this could be taken as a good sign as the concern about anonymity at the end may imply truthfulness earlier in the survey. On the other hand, the fact that rates of endorsement of SM interest items were much higher than previous studies does raise the concern that those that completed the survey may be self-selected by interest in these activities.

It is unlikely that the data gathered are the results of deliberate attempts to deceive or annoy (what is referred to as “trolling” in internet slang) for a number of reasons. In order to be included in the survey, participants need to complete at least the first ten pages of the survey. This included a significant number of items with no titillating material or direct feedback. Those

that accessed the survey in the mistaken belief that they would see titillating or pornographic material were likely to become bored quickly. Those motivated to deliberately disrupt would have to invest a considerable amount of time and energy. Even if someone was seeking to deliberately affect the results, it is unlikely that such individuals would have done so in large enough numbers to manipulate the data to demonstrate the observed links between sadomasochistic activities and coercive activities.

Interest Scales

At first glance, one of the most striking results is the rate at which individuals endorsed unusual and coercive behavior. Given the nature of the study, it is not appropriate to attempt to generalize to the general population. The rate at which participants admitted to coercive sexual behavior appears somewhat consistent with previous research, but the rate at which they endorsed SM interests was significantly higher than expected. Further, between five and eight percent of women reported fantasizing about performing sexual assault or rape and up to two percent of women admitted to engaging in such a behavior. This appears inconsistent with the generally accepted finding that female sexual offenders account for only about four percent of the total population of sex offenders (Cortoni & Hanson, 2005).

A much larger proportion than expected of participants admitted to interest and participation in SM activities. Again, given the nature of the study, these rates are likely due to self selection. The most highly endorsed items were the use of blindfolds, restraint, spanking, and pretending to be a servant or slave. The more obscure or dangerous activities (such as erotic asphyxiation or pretending to be an animal such as a horse or a puppy) were endorsed by almost a tenth of the sample. The rate of endorsement was significantly higher than the figures of between two and ten percent of the population estimated to be involved in sadomasochistic

activities (Moser & Kleinplatz, 2006; Richters, de Visser, Rissel, Grulich, & Smith, 2008). This difference is best attributed to the self-selecting nature of this study.

There was almost no difference in responses between the SM fantasy interest scale and the SM consenting scale (in fact, the correlation between the scales approached the internal consistency estimate for each scale). This strongly suggests that both scales are measuring the same information. There appeared to be little difference in responding based on whether people were asked if they fantasized about a sadomasochistic activity and if they would like to do this with a consenting individual. If this is the case, it suggests that there may be an implication of consent in many of these fantasies.

Predictors of Sadomasochistic Interest and Coercive Sexual Arousal

Many of the hypotheses were not supported. The central prediction that SM interest and coercive sexual interests were distinct entities was only partially supported. Although the relationship between sensation seeking and general antisocial behavior reaffirms the relationship between a heightened interest in novel and exciting stimulation and engaging in socially proscribed behavior observed in the sensation seeking literature (e.g., Zuckerman, 1990), the hypothesis that antisocial behavior, impulsivity and sensation seeking would clearly differentiate forms of deviant sexual interest was only partially supported.

The level of coercive sexual interest, intent, and behavior is consistent with some previous studies (e.g., Koss et al., 1987), but significantly higher than others (Barbaree & Marshall, 1989). Approximately ten percent of men and two percent of women admitted that if they felt that they would not face punishment, they would engaged in sexual assault behaviors that would involve force. This is in contrast to Malamuth and colleagues (1980) finding that half of males admitted that they would rape someone if they felt that they would not be caught.

SM interests and activities proved to be as effective, if not more effective predictors of coercive sexual interest as sensation seeking and antisocial behavior. This may indicate that sexuality is indeed a core component of coercive sexual behavior. SM interest predicted coercive sexual fantasy better than any of the nonsexual characteristics and as effectively as coercive sexual intent. However, rape myth adherence was a much stronger predictor of coercive sexual intent than SM interests. This perhaps underlines an important difference between fantasy and participation.

Fantasy versus Behavior

There was a strong connection between fantasizing about SM activities and coercive sexual activities. However, SM interest was weakly correlated with coercive intent, and SM interests were also weakly associated with coercive sexual behavior. This may indicate an overlap in the domain content of coercive fantasy and SM interests without necessitating an extension into the domain of acting on such fantasies. These data suggest a potentially complicated relationship between fantasy and behavior.

The positive correlation between participation in both sadomasochistic and coercive sexual behavior may indicate an underlying variable of general sexuality, sex drive, or willingness to act on a sex drive, whereas the correlations between coercive fantasy and SM interest variables may reflect a shared component of implied consent for coercive fantasies which was not intended in crafting the items. That is, part of the enjoyment of SM activities can be the pretense or fantasized role play of non-consent within a framework of previously established consent (including boundaries such as “safe words”) which serve to maintain the pretense of non-consent during the sexual activity (Dancer, Kleinplatz, & Moser, 2006). Items describing coercive content that appeals to this fantasy, such as touching someone without their

consent or coercing them into an activity, may be appealing to those with interest in SM activities as it is similar to an SM fantasy. However, when the nonconsensual nature of the activity is emphasized (as in coercive intent and coercive behavior items) the lack of a consenting framework becomes evident and removes the acceptable frame for these deviant fantasies.

Unsupported Hypotheses

As with all null results, the absence of a finding could be due to many failures in the research design such as problematic measurement of the constructs or a non-representative study sample. Given the above caveat, the following observations are highly speculative. The lack of relationship between openness to experience and SM interest is one such surprising and difficult to interpret result. It may be that aspects of openness such as liberal politics and artistic appreciation are genuinely independent of sexual deviance.

The weak relationship between aggressive sexual desire and measures of psychopathology in this sample could indicate that coercive sexual desire may be more like a trait than a dysfunction. If aggressive sexual desire is as common in the population as it was found in the current study and in prior studies (Abbey & McAuslan, 2004; Gidycz et al., 2011; Koss et al., 1987), it may be a common trait or “drive” which differs in manifestation more than underlying function. This drive could be defined as a push to feel power and control over others, analogous to the previously discussed need for autonomy. Individuals might be directed by a cluster of predispositions toward sexual behavior that involves a disparity of power that can be expressed in sexual situations. This may be similar to the way some evolutionary psychologists have argued that genetically driven behaviors have changed in the form that they are expressed over the course of social development but retain “earlier” characteristics. Certainly, the idea of

sexual interest and aggression as related, even intertwined drives, that motivate a significant portion of human behavior, dates back to Freud's work (e.g., Freud, 1933).

Several other key variables were essentially unrelated to sexual interest. For example, empathy is presumed to be deficient in perpetrators of sexual offenses but empathy score showed a near zero relationship with coercive sexual fantasy and behavior in the current study. The measure of empathy chosen was brief and may have failed to capture the desired domain of this broad construct. However, the negative relationship between empathy and rape myth acceptances indicates at least some construct validity.

Sensation seeking was hypothesized to differentiate between sadomasochist and coercive interests, with higher levels of sensation seeking being more associated with coercive, rather than sadomasochistic sexual interests. As predicted, sensation seeking (specifically the factors of disconstraint and excitement seeking) was associated with SM interests, but the predicted, stronger relationship between sensation seeking and coercive interests was not evident. This finding indicates that although independent of coercive behavior, the desire to engage in new and novel activities extends to the domain of unusual but not coercive sexual interest and behavior. People possessing a higher need for stimulation and novelty may be drawn to SM activities as an expression of the desire for stimulation. This may indicate that part of the appeal of SM activities is the heightened sexual "charge" involved, rather than an innate desire. Externalizing behaviors were hypothesized to distinguish between coercive and SM sexual interest but did not. This was despite both externalizing behavior and sensation seeking successfully predicting juvenile and general antisocial behavior. On the other hand, adherence to rape myths did successfully distinguish between SM and coercive interests and behavior and it did so in the expected

directions. Higher levels of rape myth adherence predicted higher levels of coercive sexual interest but had minimal relationship to interest in sadomasochistic sex.

Relating Current Results to the Criminogenic Need Literature

The relationship between interest in the forms of deviant sexual behavior and their predictors further support the idea of criminogenic need (Ward & Stewart, 2003a), although not necessarily in the expected direction. Rather than supporting the idea that behavioral disinhibition drives sexual offending, sadomasochistic sexual intent and rape myth acceptance are more predictive of sexual acting out. Engagement in more unusual sexual behavior (possibly indicative of higher or wider sexual preference) and thoughts that allow one to justify coercive sexual behavior may be key variables that facilitate sexual offending. These variables appear to have less to do with being unable to restrain oneself from sexual acting out and more to do with justifying a lack of restraint. The identification of rape myths as a predictor of coercive interest and behavior is consistent with the general sexual offending literature (e.g., Hanson & Bussière, 1998), and the limited number of prospective surveys that have identified rape myths and hostility towards women as well as prior criminal behavior as predictors of later sexual violence (Abbey & McAuslan, 2004; Malamuth, 1986).

Ward and Stewart (2003a) propose a non-definitive list of three categorical (that is basic and therefore non-instrumental) needs: relatedness, competency, and autonomy. They approach criminogenic needs as distortions of these needs based on internal and external contingencies. Within this framework, the simplistic view is that coercive sexual interest may be a distortion of the relatedness need, a need to feel sexually (and possibly emotionally) close to another person. SM interest, particularly submissive SM interest, is something of a contradiction. If anything submissive interest on the surface sounds like the opposite of a need for autonomy, that is, a need

for control. Although this has been addressed in sadomasochistic sexuality writing as a transformation of power (freely giving away control), it has not been investigated psychologically. This leads into the politically problematic suggestion that sadomasochistic interests and coercive sexual interests are rooted in the same needs directed appropriately or inappropriately, respectively.

The suggestion that coercive and SM interests are indicative of the same underlying needs is consistent with a historical view of sadomasochistic sex as indicative of trauma or dysfunction, perhaps caused by problems in development. However, as reviewed in the introduction, this simplified view does not seem to be borne out by the wider literature. Proponents of the “good lives” model suggest coercive sexual arousal may be a corruption of normative needs for intimacy and competency and represent a proxy need for those normative and healthy needs (Ward & Stewart, 2003a). This line of reasoning can be used to support categorizing SM interest as potentially pathological, as it has been described in some previous psychodynamic literature (e.g., Bond, 1981; Levy, 2000). The limited amount of empirical literature available suggests that SM interests are not closely associated with psychopathology (Connolly, 2006) and show only a limited relationship with abuse history (Nordling et al., 2006; Richters et al., 2008). If SM interests were inherently pathological, then a much stronger relationship with other psychopathology traits (e.g., neuroticism) and illegal behavior should be seen.

Data in the current study fail to support the idea that general antisocial behavior and its correlates successfully distinguish SM interests and activities from coercive sexual behavior (potentially supporting a shared cause for sadomasochism and coercion). On the other hand, findings from the current study also fail to support the idea that antisocial behavior and traits

such as neuroticism and sensation seeking are the force behind coercive sexual behavior (contrary to the psychopathology link to sexual deviance model). The current data do support the idea that misogynistic ideas related to sexuality distinguish those who endorse coercive sexual behavior from those who express deviant sadomasochistic sexuality. This finding supports a differentiation between the two classes of deviant sexual arousal and behavior based on attitudes rather than history of antisocial behavior or psychopathology linked traits. The substantial correlation between SM interest measures and coercive measures is also hard to reconcile with other data. If the relationship between SM interest and coercive behavior is large, there should be significant spikes in the rates of sexual assaults as reported rates of sadomasochistic sexual interest have increased over the last few decades. The rates of sexual assault have been decreased significantly over the past 30 years (Bureau of Justice Statistics, 2009), sexual crimes are being taken increasingly seriously (as evidenced by stricter levels of registration and punishment laws, such as Megan's law and Adam's law). Bureau of Justice Statistics indicate that the rate at which sexual crimes are reported continues to rise, but at the same time as the visibility and reported interest in sadomasochistic sexuality has increased. There are likely multiple social trends at work. Willingness to admit to being the victim of a sexual crime, as well as willingness to admit to participation in SM activities are increasing over time. At the same time willingness to admit to perpetrating a sexual offense (and the seriousness with which sexual offending is treated by the authorities) is also decreasing as the acceptability coercive and entitled sexual behavior, especially by men, become more acknowledged as a social problem by the wider society.

If sadomasochistic and fetishistic individuals have high levels of deviant sexual arousal but are not acting on such arousal, there should be individual difference variables that help explain how these people limit their behavior to non-coercive acts. These characteristics could be

used to properly delineate between coercive and SM interests. If such a “magic bullet” variable exists, this study did not find it. Although general rule breaking and nonconforming behavior appears to be associated with coercive sexual behavior, the idea of a variable related to sensation seeking or general disconstraint as a final common pathway to sexual offending is not supported by these data. These results support the idea that multiple, independent characteristics contribute to sexual acting out. General antisocial behavior, the tendency to externalize problems, fantasizing about coercive sex, admitting willingness to commit inappropriate sexual behavior if risks are low enough, and engagement in unusual sexual behavior all appear to contribute to engagement in coercive sexual behavior. This contribution appears to be largely unshared and each individual contribution is not large, suggesting an additive model of coercive sexual interest.

Gender Differences

When the participants were divided by gender, the results more closely resembled the relationships that were initially hypothesized. For men, rape myths adherence, coercive sexual intent, and participation in SM activities were more predictive of coercive sexual behavior than for women. Fantasizing about coercive behavior was more closely related to intention to engage in coercive behavior. For women, higher empathy and sensation seeking were significant predictors of interest in SM activities, but participation in SM activities was not predictive of coercive sexual behavior for women. Unsurprisingly, rape myth acceptance was not predictive of coercive intent for women.

These results suggest some significant differences in the generation of coercive sexual behavior for men and women. For women, several of the hypothesized variables (empathy and sensation seeking) were more powerful in predicting sadomasochistic sexuality, but

sadomasochistic activity was not a significant predictor of engaging in coercive behavior. For men, results were more in line with conventional models of coercive sexual behavior; coercive sexual fantasy, adherence to myths about rape, and a willingness to engage in coercive behavior all predicted performing coercive behavior. The connection between SM activities and coercive sexual behavior for men and not women is somewhat confusing, but may indicate further evidence for the influence of the level of general sexual interest. These results suggest that the connection between general sexual interest might be a necessary, but not sufficient predictor of coercive sexual behavior. Below a certain threshold, general sexual drive, and perhaps empathy, may be related to the probability of sexual acting out, but above that threshold (historical antisocial behavior) and attitudinal factors (rape myth adherence and coercive sexual interest) become more important in predicting whether and individual will engage in coercive behavior. Ultimately, the etiology of coercive sexual behavior appears to be different in men and women.

Future Directions for Research

The data found in this study indicate the importance of further investigating the connection between fantasy, intent, willingness, and behavior. This will provide insight into which additive, diathetic, variables co-occur to shape deviant sexual arousal into consensual and coercive forms. Of particular interest may be including investigating the level of general sex drive or sexual interest, which this study did not do. This may account for a proportion of the relationship between SM activities and coercive sexual activities.

It will be important in further studies to find a way to access and define what constitutes willingness to follow through on deviant sexual fantasy and how that willingness shapes the form in which it is expressed. This might benefit from addressing the relationship between

willingness, rape myth adherence, and the capacity to cognitively defend oneself across a variety of situations.

In order to shed further light on willingness to harm and its relationship to fantasy, intent, and behavior, future versions of the FAI would benefit from questions that more clearly differentiate between enjoying the pretence and fantasy of harm from the enjoyment of inflicting harm, and from the willingness to perform actual harm in pursuit of meeting sexual needs. Clearer measures of these facets of deviant sexual arousal may allow a better chance to illuminate potential differences between the functions of behaviors which are similar in form. Although sensation seeking and externalizing showed limited usefulness in the present study, differentiating the extroverted, excitement interest from the impulsivity may form one part of the answer with something similar to the acceptance of rape myths forming the other. The latter variable may involve acceptance of rape myths, but also beliefs about the necessity of meeting sexual needs imminently, the primacy of ones own sexual needs over others right to freedom from harm, and willingness to let sexual desires dictate behavior. This variable is problematically nebulous. The weak relationship with externalizing suggests that it is less to do with failing to inhibit behavior and more to do with not desiring to inhibit behavior. This is partially tapped by the wording on the intent scale (“I would do this if I knew I would get away with it”) but perhaps a better description in this case would be “I would do this if I felt that there wouldn’t be legal consequences.”

A way to tackle the nebulous nature of a domain of “willingness to harm” might be better addressed in some kind of behavior choice task, rather through direct questioning. Obviously, for ethical reasons, this could not be addressed in the real world, but a vignette-based study that aroused participants and then asked them report what they would do in a described coercive

situation may have enough resemblance to real world decision making to access this domain of being willing to do something. Follow up studies would then need to link this to real world behavior.

APPENDICES

APPENDIX A

SUMMARY OF DSM-IV-TR PARAPHILIA CATEGORIES

Exhibitionism

Exhibitionism involves a sexual focus on exposing one's genitals to other, unsuspecting individuals without their knowledge or consent. Popular culture presents the exhibitionists as pathetic, raincoat wearing men jumping out of the bushes in an attempt to terrify women. As with any illegal behavior, base rates are difficult to determine and reporting is frequently sporadic. Abel and Rouleau (1990) found that in a population of exhibitionists who were promised anonymity 142 participants reported a total of 513 victims, suggesting that of all of the assaultive paraphilias, it may have the highest number of victims per offender. Review and empirical studies suggest that one third to one half of all sex crimes registered with the police were for some form of exhibitionistic behavior (Frenken, Gijs, & Van Beek, 1999; Murphy, 1990). Samples of women in the general population suggest that over a third of women had been the victim of an exhibitionist (Cox & MacMahon, 1978; Cox, Tsang, & Lee, 1982; Gittelson, Eacott, & Mehta, 1978; and Riordan, 1999).

The relationship between exhibitionism and other sexual crimes is not definitive, but there is some evidence of progression to more serious offenses following exhibitionism. In a federally licensed confidentiality study, Abel and Osborn (1992) found that 15% of a sample of 240 exhibitionists had progressed to rape. Within the subset of their sample that were diagnosed as primarily exhibitionists 39% reported having histories of molesting children. 14% reported that they had previously committed rape.

Fetishism

Fetishism involves sexual arousal with a focus on non-human sexual objects. Common examples of this include women's underwear and shoes (APA, 2000); however, a wide variety of objects have been recorded including, hairbrushes, artificial limbs, safety pins, snails, cockroaches, whiles, roses, eyeglasses, and the handlebars of an Italian racing bike (Steele, 1996). Frequently, the item may be some form of clothing that is worn by the fetishist's sexual partner. The fetishist may not be able to achieve erection or orgasm without access to the fetish object. As with many paraphilias the term is used differently between the general public and the psychological community. Within the paraphilic research community, a comparatively high threshold for the diagnosis of a fetish is used, requiring the occurrence of sexual dysfunction without its presence. Within the general community the term is generally used as a synonym for a peccadillo.

Frotteurism

Frotteurism is characterized by arousal generated by rubbing against or touching an unwilling person. Although frotteurism is considered a separate paraphilic diagnostic category it is comparatively rare and understudied. The majority of research published has only included case studies. One of the reasons given for this is the disproportionately low rate at which it is prosecuted and when it is, the shorter sentences that are handed down (Kreuger & Kaplan, 1997). Several researchers (Freund & Watson, 1990) have related it closely to rape, suggesting that it may be a precursor behavior or a disinhibiting behavior, or even a subtype of rape (Prentky & Knight, 1991). Others have suggested that given the limit evidence, this conclusion is premature (Horley, 2001). Evidence from Freund, Seto, and Kuban (1997) suggests that it may be linked to exhibitionism and voyeurism. Freund and Kolarsky (1965) explain this connection through a

theory of “courtship disorder,” suggesting that the association between voyeurism, exhibitionism, frotteurism, and what they termed the “preferential rape pattern” was due to a dysfunction in understanding or adhering to the normal series of courtship behavior display by humans and other animals. Normal courtship is proposed to be composed of four distinct stages (Morris, 1966): The location and first appraisal of a likely or suitable partner; pretactile interaction, which involves non-verbal behaviors such as smiling, looking and posturing, as well as talking; tactile interaction, the early stages of physical intimacy; and finally effecting genital union, sexual intercourse of some description. Freund and colleagues suggested that the co-occurrence between these four syndromes was caused by the sufferer being fixated on one of the four stages of courtship due to a delay in normal development. Each disorder corresponded to one of the four stages of courtship. The crucial logical problem with this theory is that if these disorders are related to a distortion of the stages described this would not explain the co-morbidity that has been observed between them. The courtship disorder explanation seems to have fallen out of favor in recent years.

Pedophilia

Pedophilia is probably the most well known and studied of the paraphilias. This is unsurprising, given society's nominal focus on protecting children and the outrage that is frequently generated by even the suspicion of inappropriate sexual contact with children. Pedophilia is characterized by a persistent sexual interest in prepubescent or pre-sexual children that is present in thoughts, fantasies, urges, sexual arousal, and sexual behavior, over a sustained period (APA, 2000). The pedophilic category is broad, including individuals who are interested in prepubescent boy, prepubescent girls, and both prepubescent boys and girls. Many individuals characterized as pedophiles are sexually active with adults as well (Seto, 2008). This last fact has

become significant to those advocating the criminogenic need model. Contact across as variety of age groups may imply that in some cases, the presence of pedophilic behavior may be demonstrative of a condition that is less like an orientation or fixed preference for certain physical characteristics and more like a lower threshold for opportunistic and victimizing sexual activity. Pedophilic interest must be differentiated from sexual behavior. Pedophilia is defined as arousal and its correlates, rather than the performance of sexual acts. There are individuals with pedophilia where no sexual contact with children has been substantiated and cases of sexual contact against children by individuals that are not pedophiles (Seto, Cantor, & Blanchard, 2006).

Epidemiological data regarding the prevalence rate of pedophilia are largely non-existent. Given the social stigma and criminal reprisals involved, few respondents that are not already convicted sex offenders are willing to answer questions regarding it. Even then, there are ethical and legal concerns facing researchers involving mandated reporting and the practicalities of ensuring both confidentiality and purposeful responding. Furthermore, discrete or individual occasions of fantasizing about children would not meet the persistence criterion required for pedophilia. Studies have provided approximate figures by asking about the presence of sexual fantasy towards children. In these surveys asking participants to admit sexual interest in children base rates varying from 3 to 9% have been reported (Briere & Runtz, 1989; Crepault & Couture, 1980; Fromuth, Burkhart, & Jones, 1991). There is evidence to suggest that interest in children develops in during adolescence (Abel, Becker, Mittelman, Cunningham-Rathner, Rouleau, & Murphy 1987; Marshall, Barbaree, & Eccles, 1991) and is likely to be largely stable across the

lifespan (Hanson, Steffy, & Gauthier, 1993). It should be noted that the majority of this evidence is based on self-report measures from individuals who have been convicted of criminal sexual contact.

Sexual Masochism

Sexual masochism and sadism are closely linked. There is a plethora of research from a psychodynamic literature addressing underlying causes of masochistic arousal and behavior; however, little of it has been empirically validated. As with sadism, study is complicated by definitions. The DSM-IV-TR criteria exclude “simulated act” (APA, 2000), without clearly quantifying what this definition means. Within Santtila, Sandnabba, and Nordlings’ (2006) investigation of the male members of the sadomasochistic scene, 17.3% of participants reported that they had engaged in skin branding. This would seem to be an activity that would be difficult to simulate. However, perhaps because of issues of availability the majority of the limited studies available, mostly produced by the same research laboratory at Abo Akademi University, Finland have focused on the consensual sadomasochistic community. This is referred to as the Bondage, Dominance and Sadomasochistic (BDSM) community. Current evidence suggests that there is little relationship between masochism and other forms of mental illness or histories of abuse (Connolly, 2006). For the most part, there has been very little research relating psychological understandings of masochistic behaviors to empirical data. There has been a dearth of empirical studies and minimal attempts to relate longstanding psychological ideas to the apparently growing number of people openly practicing sadomasochistic activities.

Sexual Sadism

As mentioned above, sexual masochism and sadism are closely linked. Early ideas of sadism relate it to psychodynamic concepts of outwardly focused unconscious masochism (Freud, 1924). There seems to be a confusion of nomenclature between the psychological literature and the popular vernacular. Within the psychological literature sexual sadism refers only to acts that are “real” not “simulated” (APA, 2000). The majority of writers are quick to point out that this does not include casual sex-play. As a result, researchers have largely focused on the cases involving extremely violent sexually sadistic behavior, including sexual murder. Due to the severity of the behavior required for a definition of sexual sadism, very few sexual sadists are willing to cooperate with investigators.

Transvestic Fetishism

Although the DSM-IV-TR (2000) defines transvestic fetishism as involving sexual arousal in men related to dressing in clothing traditionally associated with the opposite gender, studies have found some evidence of its presence in women as well. Studies have reported activity rates of up to 2.8% in men and 0.4% in women (Långström & Zucker, 2005). Several studies suggest that men engaging in transvestite behavior predominantly characterize themselves as heterosexual (Buhrich & Beaumont, 1981; Docter & Prince 1997). Other researchers have delineated transvestites based on gender identity, dividing them into nuclear or periodic transvestites, who characterize their gender identity as male; and “marginal” transvestites, who characterize themselves as female and may pursue biological feminization or other forms of gender reassignment (Blanchard, Racansky, & Steiner, 1986; Docter & Prince, 1997). It is unclear in what way “marginal” transvestites are distinguished from individuals characterized as experiencing gender identity disorder. Långström and Zucker’s (2005) extensive

study addressed the prevalence and correlates of transvestitism in the general Swedish population. They noted that correlates included separation from parents during childhood, being more easily sexually aroused than average, experience of sexual behavior with individuals of the same gender, pornography use, increased frequency of masturbation, being sexually aroused by pain, voyeuristic behavior, exhibitionistic behavior, and the belief that it was acceptable to become aroused by cross dressing. Although initially drawing from a sample of 2,450 participants Långström and Zucker found only 41 people admitting to transvestic behavior and arousal and they openly note the limited statistical power of these conclusions. They also note that even though acceptance of transvestic desires was a correlate of experiencing these desires, over half of their sample did not endorse this particular item. Some research has associate transvestitism with several other forms of high risk or rare sexual behavior, such as autoerotic asphyxiation (Blanchard & Hucker, 1991).

Voyeurism

Within the paraphilia literature, voyeurism involves obtaining sexual excitement through the observation of others engaging in sexual behavior or while they are undressing. In those that have been caught engaging in voyeuristic crimes it is typically chronic, with onset at around the age of 15 years old (Kaplan & Kreuger, 1997). As mentioned above, it is frequently co-morbid with other paraphilias, most notably exhibitionism and frotteurism. There may be three categories of voyeurs. Those that engage in it as their sole sexual release, those that prefer it, but engage in other sexual behaviors, and those that engage in voyeurism only during times of heightened stress (Kaplan & Kreuger, 1997).

Paraphilias NOS

Coprophilia and Urophilia

Coprophilia and urophilia are characterized by requiring interaction with feces or urine to achieve sexual arousal. Case reports have linked coprophilia to depression and substance abuse (Wise & Goldberg, 1995), mental retardation (Beck & Frohberg, 2005), as well as developmental disabilities and autism, (Baker, Valenzuela, & Wieseler, 2005). These interactions with excreted matter may involve the paraphiliac urinating or defecating on another, having another individual urinating or defecating on the paraphiliac, or the consumption of urine or fecal matter in order to obtain sexual pleasure (Skinner & Becker, 1985). Few studies have attempted to directly address Coprophilia and Urophilia. Theoretical work by Denson (1982) proposes that the excreted matter itself may become a fetishized object with the drinker symbolically “capturing” the spirit of the individual's sexual partner. Other explanations have attributed coprophiliac and urophiliac interest to arousal generated humiliation inherent in exchanging bodily fluids

Klismaphilia

Klismaphilia involves a focus on the act of giving or receiving enemas. Very little in the way of research literature has investigated this phenomena. Adams & McAnulty, (1993) assert that it may have links to rubber fetishism or sadomasochistic activities. Agnew (1982) argues that much of the attraction involved is generated by the sensitivity of the anal area. As this area is filled, it may provide sensation similar to that of prostate stimulation in males and vaginal intercourse in females.

Necrophilia

Currently, there is only one published study investigating the characteristics of necrophiliacs (Rosman & Resnick, 1989). Their sample was drawn from aggregating case reports published in the psychological literature as well as case reports from colleagues. The individuals identified consisted of predominantly heterosexual, unmarried men. Necrophiliacs tended to be in their mid thirties and have access to corpses through their occupation. Rosman and Resnick differentiated between “genuine” (44% of the sample) and “pseudo-” (27% of the sample) necrophiliacs based on the degree to which their interest in necrophiliac activities was transitory. They noted that due to a lack of case detail 29% of their sample could not be classified as genuine necrophiliacs or pseudonecrophiliacs. Of these genuine necrophiliacs, 50 were classified based on their activities with a corpse. Of the 50, 28% were classified as homicidal (they had killed in order to gain access to human remains), 42% were classified as “regular” (they had engaged in sexual activities with already dead corpses), and 30% had only fantasized about sexual contact with corpses. Approximately two thirds of the sample had a history of sadistic acts.

Partialism

Partialism involves specific focus on an individual body part that is not normally considered to be a traditional erogenous zone. Little research exists in the literature beyond individual case studies (Penix, 2008).

Telephone Scatology

Price, Kafka, Commons, Gutheil and Simpson (2002) distinguish the relatively common phenomenon of casual obscene phone calls from telephone scatologia. In telephone scatologia, the caller generates sexual arousal from the experience, rather than amusement at another's

frustration or other, non-sexual enjoyment. Telephone scatologia appears to be highly co-morbid with other paraphilias, with 95% of them reporting symptoms meeting criteria for other paraphilia (Price, Gutheil, Commons, Kafka, & Dodd-Kimmey, 2001). Research gathering demographic information on telephone scatologists has suggested that the majority is heterosexual and begin acting in adulthood (Pakhomou, 2006). Pakhomou reports that they lack significant psychopathology or significant cognitive deficits, but are likely to have failed in significant relationships and possess average or higher sex drives.

Zoophilia

Zoophilia refers to sexual contact with animals. Current researchers differentiates between casual or opportunistic sexual contact with animals and what might be termed “preferential” zoophilia (Tollison & Adams, 1979). Early epidemiology studies generated base rates that appear to be surprisingly high, (Kinsey Pomeroy, & Martin, 1948; Kinsey Pomeroy, Martin, & Gebhard, 1953) suggested that rates of participation in sexual contact with animals were as high as 8% in males and 3.6% in females; however, these studies do not distinguish between opportunistic rather than preferential behavior. Later investigation by Hunt (1974) found significantly lower rates, (5% of males and 2% of females). Hunt provided the potential explanation that this could be due to the increasing urbanization of American society. Alvarez and Freinhar (1991) reported some association with mental illness, finding that 55% of a sample of psychiatric inpatients had participated in sexual activities with animals. It should be noted that within their control groups; mental health staff and medical inpatients displayed high levels of zoophilic behavior, with 15% and 10% of them respectively reporting participating in these behaviors. Significant here is that apparently 10 to 15 percent of the apparently non-pathological population reported sexual contact with animals. A recent on-line study by Williams, and

Weinberg (2003) found that of 114 zoophiles, all were white, with 64% reporting they were not married and 83% attending or graduating from college. Thirty-four percent were living in rural areas, with the 12% living in small towns, 7% in small cities, and 47% living in medium or large cities. Ninety-three percent of the sample identified themselves as zoophiles. Zoophiles commonly reported strong feelings of love towards their animal of preference, explicitly differentiating themselves from those who “only” had sex with animals, regardless of pleasure or affection. Seventy-nine percent of the sample reported that they felt that animals were capable of “idealized anthropomorphic love,” describing one of the reasons for their activity was due to a desire for affection.

More recent studies utilizing different methodologies, such as soliciting subjects over the Internet may provide great details of the current degree of occurrence and nature of these activities. The majority of Miletski's (2002) sample lived in urban or suburban environments. They were 88% male and generally aged in their thirties. Over half possessed a college degree. Less than half were single and only one third married. More than three quarters reported heterosexual or homosexual human sexual contact. The majority of participants reported sexual interest in more than one species of animals. Over 80% reported attraction to dogs and 80% reported attraction to equines. Other interests included cows, sheep, and cats. They appeared to be more likely than chance to have been abused, with just less than a fifth of the men reporting some kind of abusive contact. Beetz's (2002) sample of 116 was overwhelmingly male (97%). Again, they were in their mid thirties, but only third of them were college graduates. Almost eighty percent of them were single, two thirds of them reported desiring a human sexual partner and three quarters reported previous sexual contact with humans. The majority of these reported

sexual contact with dogs. Half reported sexual contact with horses. At the present time, there are no standardized assessment measures available for paraphilia NOS.

APPENDIX B

PHYSIOLOGICAL MEASUREMENT OF SEXUAL AROUSAL

Current Measurement of Deviant Sexual Arousal: Plethysmography

In the sex offender treatment research literature, the presence of deviant sexual arousal has been measured with a variety of psychophysiological methods. The most prevalent of these in men is phallometric assessment taking the form of penile plethysmography. Penile plethysmography (PPG), the measurement of penile tumescence typically during the presentation of a standardized set of stimuli intended to provoke sexual arousal toward a particular deviant or non-deviant target. Although this method demonstrates high face validity, it may be vulnerable to conscious attempts at dissimulation (Simon & Schouten, 1991). Penile plethysmography has been used as a measure of sexual arousal since the 1960s (Simon & Schouten, 1991). Masters and Johnson's work in the 1960s utilized it extensively (Masters & Johnson, 1966, 1970). Over time plethysmography has been used more in clinical and forensic settings and research. Researchers, such as the late Kurt Freund (1963) utilized it to investigate sexual preference in areas related to sexual deviance, age based sexual preference, and gender preference. Recently, it has been used in a number of treatment and probation/parole programs for sex offenders as part of criteria for discharge or in evaluating offender treatment. Phallometric assessment is often discussed uncritically, the high face validity of measuring penile tumescence and the assumption that sexual arousal is intrinsically linked to sexual behavior circumventing methodological criticism.

Proponents of using plethysmography argue that if alterations are made through the reconditioning of sexual arousal, this will be evident in penile tumescence. This conclusion is problematic, given the lack of benchmark criterion for a normative nature or degree of sexual

arousal or behavior. There is simply little information on the nature and parameters of normative sexual arousal and behavior. For example, there is no normative data for the presence of arousal to inappropriate cues (such as children) among populations that have not committed a sex crime. Because of this lack of comparison, it is unknown what, if any, effect such arousal has on individuals' actions. No studies have measured non-criminals before an offense and used arousal to predict an offense. Furthermore, offenders have been observed to “pass” PPG testing and subsequently go on to sexually offend again. Given the limited body of research available and the inconsistency of findings, the underlying proposition causally linking deviant sexual arousal to inappropriate or illegal sexual can be seen to lack support.

These concerns are compounded by multiple practical concerns. By its very nature, the PPG is invasive, requiring the participant to have a gauge placed around his penis in order for it to be used. The ethical issues involved multiply quickly. Use with juvenile sex offenders is inherently problematic as it requires the participant to engage in non-normative behavior (partially undressing in an unfamiliar location) as well as requiring someone who is not a legal adult to view what in many cases is pornographic material. As it is often a requirement of probation or parole, the participant is incapable of freely providing consent. The participant cannot withdraw or refuse without potentially facing serious legal consequences. If the results are being used to make life changing decisions about the participant, such as whether they will be released from probation, there is a strong motivation to attempt to mislead the test.

Reliability data for phallometric assessment is variable. Studies have found reliability coefficients varying from .38 to .94, depending on the measure of reliability used (Earls & Marshall, 1983; Wormith, 1986). Levels of internal consistency (alpha) have been found to vary between .04 and .91 (Earls & Marshall, 1983). Overall rates of internal consistency reliability

across pedophiles, rapists, and non-sexual offenders have been reported as low as $r = .52$ by Wormith (1986). Within studies examining offenders grouped by offense type reliabilities have been as low as $r = .29$ in non-offenders and $r = .44$ in rapists (Barbaree, Baxter, & Marshall, 1989). Barker and Howell (1992) suggest that reliability scores can be influenced by scoring method; however, there does not appear to be a clear pattern as to how this occurs. Currently, many of the listed reliabilities reported are lower than those of self-report measures. Studies attempting to use PPG measurements to differentiate between groups have generated mixed results. Studies have found contradictory and inconsistent finding between measures of circumferential and volumetric tumescence (Kalmus & Beech, 2003). Contrary to theoretical expectations, plethysmographic techniques have difficulty distinguishing between incestuous and extrafamilial offenders, significant differences have been found but there is a significant overlap across these groups (Conte, 1991). Mixed results have been found in attempts to differentiate between violent and non-violent offenders. Some studies have shown success, Avery-Clark and Laws (1984) were able to correctly classify 92% of violent sex offenders targeting children, but misclassified 30% of non-violent sex offenders targeting children, identifying them as violent. Others have failed to find even differences this large. Firestone and colleagues found no difference in responding to coercive and noncoercive stimuli in 37% of homicidal sex offenders targeting children (Firestone, Bradford, Greenburg, & Nunes, 2000). Other studies attempting to use this technique to differentiate child molesters from non-molester controls have shown a higher degree of accuracy (Avery-Clark & Laws, 1984). Even when group differences are discovered, high levels of discriminate error are evident. Looman and Marshall (2001) reported discriminative error rates as high as 65% while attempting to differentiate child molesters from rapists through plethysmography. A significant amount of evidence suggests that erectile

response can be consciously mediated in order to fake a normative or more normative pattern of responding (Golde, Strassberg, & Turner, 2000; Avery-Clark & Laws, 1984). These methods range from physical techniques, such as contracting penis muscles to cognitive strategies, such as focusing on appropriate stimuli and attempting to ignore inappropriate stimuli as they are presented. Effective and well accepted methods by which the examiner to detect can techniques have not yet been developed (Kalmus & Beech, 2003).

Several meta-analytical studies have suggested a relationship between various measures of sexual deviance, such as self-report, historical assessment, and PPG measurement (Hanson & Morton-Bourgon, 2004; Hanson & Bussière, 1998). However, these results have been mixed. Hanson and Morton-Bourgon (2004) found no significant relationship between sexual recidivism and phallometric assessment for rapists offending against adults. Previous studies have suggested that rapists demonstrate stronger phallometric responses than non-rapists to rape materials (Lalumière & Quinsey, 1994). Hanson and Morton-Bourgon (2004) instead note the importance of sexual pre-occupation as a predictor of recidivism. Previous research has linked this sexual pre-occupation with a possible biological basis (Kafka, 2003)

There is little research available demonstrating the efficacy of PPG use in treatment. Several researchers have suggested the use of phallometric assessment as a discharge criterion either from behavior therapy or from incarceration or civil commitment (Freund et al., 1979). However, such proposals remain problematic as studies do not demonstrate the degree to which reduction of arousal from frequent phallometric assessment is due to a decrease in deviant sexual arousal brought on by treatment or simply due to habituation to the given stimulus set used (Donohue & Greer, 1985). Several probation and parole programs in the United States (most notably that of the State of Florida) have made use of regular assessments via PPG measurement

as a condition of release from incarceration, however, little empirical data on efficacy is available in the form of post release behavior. Several authors have suggested the use of phallometrics with offenders in treatment who are exhibiting denial (Freund et al. 1979). Denial of responsibility for criminal activity, as well as a negativistic attitude, have been strongly and consistently linked with recidivism (Hanson & Morton-Bourgon, 2004). The predictive efficacy of these cognitive and attitudinal measures suggests that there are constructs beyond deviant sexual arousal that contribute to illegal and inappropriate sexual behavior. Hanson and Morton-Bourgon (2004) outline the predictive effect of refusal to accept that the actions one has taken are inappropriate and a negativistic attitude toward society and its strictures. Currently, these attitudes have only been investigated in terms of recidivism. These two antisocial attitudes may be indicative of a wider underlying attitude of disregard for others' rights. This may be related to the known criminal versatility of sex offender. The reason these physiological methods have difficulty getting at the heart of the matter is because the population being addressed is inaccurately described. For the most part, the population may not be "sex offenders" but "versatile criminals who have committed a sex offense." Dissatisfaction with the lack of capacity of phallometric assessments to address these questions as well as discontent with its other deficits have led to attempts to develop alternative methods of measuring deviant and non-deviant sexual arousal.

Alternate Methods of Measurement

A variety of alternative methods of measurement have been proposed for quantifying and comparing sexual arousal. Techniques include use of thermistors (measurement of penile and groin temperature), photoelectric surface blood volume measurement, galvanic skin response (GSR), electroencephalographic measurement, pupillometry, and free viewing and reaction time

measures. These techniques measure the correlates and components of physiological sexual arousal. Researchers utilizing these methods to predict sexual behavior from sexual arousal share the underlying assumptions of plethysmography, that sexual arousal is linked to sexual activity and that correlates of sexual arousal can be used to predict sexual behavior.

Temperature Measurement

Thermistors measure the temperature of the penis or the groin. The underlying concept is that the increased blood flow generated in arousal will lead to a heightening of temperature. Multiple studies (e.g., Abramson, Perry, Seely, Seeley, & Rothblatt, 1981; Rubinsky, Hoon, Eckerman & Amberson, 1985; Webster & Hammer, 1983) have demonstrated a positive correlation between thermistor, self-report, and plethysmography. However, thermistor measurement appears to have difficulty detecting detumescence. One study found no relationship between abdominal temperature and plethysmography and self report data during arousal (Beck, Barlow, & Sakheim, 1983).

Photoelectric Surface Blood Volume Measurement

Because of the increase blood flow to the genitals during arousal there appears to be an increase in surface blood volume (Master & Johnson, 1966). This difference in surface blood flow can be measured, although very few studies using this mechanism have been published. Hinton, O'Neil, and Webster (1980) found they were able to find a relationship between self-report, plethysmography, and photoelectric surface blood volume measurements in less than half of an incarcerated population. They also observed that they were able to make judgments regarding orientation, age preference, and preference for consenting or non-consenting acts within this subset of the population. They noted that those that did not show this relationship

evidenced high levels of defensiveness and inconsistency in responding.

Galvanic Skin Response

Galvanic skin response (GSR) has long been used as a measure of arousal. It has been used in lie detection research and practice as a component of many polygraphy batteries. It has shown some efficacy in a normal population in detecting attempts to “spoof” or otherwise fool plethysmography tests (Card & Farrall, 1990) with GSR data peaking to correlate with attempts by participants to deliberately begin detumescence.

Electroencephalographic Measurement

Electroencephalographic measurement of contingent negative variation (CNV) assesses the neurological effect of the anticipation generated by the knowledge that a preferred sexual image is about to be presented. This technique has been shown to be able to distinguish between gender preference and age preference (Howard, Longmore, Mason, & Martin, 1994). Howard and colleagues (1994) argue that this technique may bypass many faking techniques that rely on conscious effort due to neurophysiological nature of electroencephalographic measurement. However, at the current time, only these two studies have been published. The authors note that during these studies, several participants demonstrated differences between their CNV and plethysmography data.

Pupillometry

Pupillometry has long been used as a measure of both cognitive load and emotional arousal (Steinhauer, & Hakerem, 1992). The finding that the pupil of the eye dilates during mental activity is well established. Kahneman (1973) noted a clear regular relationship between the use of cognitive resources and the dilation of the pupil. Beatty (1982) described how this

relationship had been strongly linked to short-term and working memory, information overload, language processing, sustained attention, and selective attention. He noted that the phasic differences (quick and minute differences) that are demonstrated with attention and cognitive load are distinct and can be differentiated from the tonic (slower and larger) differences evidenced in pupillometric assessment of emotional arousal.

Hess and Polt (1960) first found a relationship between viewing images of the opposite sex and pupil dilation. However, their research has been criticized for methodological flaws (Goldwater, 1972). Other studies have failed to find a relationship between the two, describing the effect as being due to stimulus novelty or differing levels of image luminescence (Garrett, Harrison, & Kelly, 1989). Whipple, Ogden, and Komisaruk (1992) found increases in pupil dilation in women during self stimulated orgasms. There has been little published literature since the 1980s. In this time, eye-tracking technology has made significant advances. Published recently, Laeng and Falkenberg (2007) used pupillometry as one of their indices of attractiveness addressing changes in women's erotic interest over the course of their menstrual cycles. They found a strong relationship between pupillometry and other self reported measures of sexual interest as well as pupillometry findings consistent with their theoretically expected result.

Viewing time and Reaction Time

Recent perceptual studies have suggested that there are differences between sex offenders, violent offenders, non-violent offenders and controls (Smith & Waterman, 2005) in the processing of sexual material. Reaction time tasks utilizing sexual material have been used with some success to distinguish between sexual offenders, non-sexual offenders and community controls (Smith & Waterman, 2005). Other researchers have used reaction time to various stimuli as an indication of deviant sexual arousal (e.g., Osborn, Abel, & Warberg, 1995). In reaction time

tasks, participants will react more slowly to preferred stimuli than to non-preferred stimuli (Laws & Gress, 2004). This effect distinguishes between sexual orientations and may be useful in detecting sexual interest in children (Harris, Rice, Quinsey, & Chapline, 1996; Wright & Adams, 1994; Zamansky, 1956).

In their comprehensive review of the literature, Laws and Gress (2004) summarize the current knowledge in the area of viewing time research. Viewing time can differentiate between individuals based on high or low sexual interest as well as high or low sexual inhibition (Rosenzweig, 1942). Viewing time tasks can differentiate between homosexual and heterosexual preference in males (Zamansky, 1956). This effect is diminished when non-sexually explicit material is used, probably due to the limited variability in responding (Quinsey, Rice, Harris, & Reid, 1993). Increased visual reaction time is associated with preferred as opposed to non-preferred sexual objects (Wright & Adams, 1994). Several studies suggest that viewing time increases with the degree of sexual explicitness in the images viewed as well as when the participants are viewing the images without someone else present (Brown, Amoroso, Ware, Preusse, & Pilkey, 1973; Ware, Brown, Amoroso, Pilkey, & Preusee, 1972). Participant identified as having dissimilar levels of sexual guilt can be differentiated based on their patterns of viewing time when the level of explicitness of the images displayed is increased (Love, Sloan, & Schmidt, 1976). These patterns of increased visual reaction time to preferred adult sexual objects are evident across both males and females (Quinsey, Ketzetsis, Earls, & Karamanoukain, 1996). The visual reaction time of child molesters shows a pattern of restricted responding across all age categories as they are typically unable to reduce responses to specific stimuli so they are obliged to reduce their level of response universally. This response pattern is similar to subjects with a high level of sexual guilt (Harris, Rice, Quinsey, & Chapline, 1996). This pattern is reminiscent

of normals looking at non-preferred targets (Harris et al., 1996). This research has fed attempts to develop testing protocols that can differentiate between molesters and controls.

Recently, researchers have attempted to take information processing in sexual arousal and apply it to effectively differentiate between groups based on their erotic interest in children. Multiple studies by Abel's research laboratory have led to the development of the Abel Assessment for sexual interest, now in its second edition, (AASI-2; Abel, Lawry, Karlstrom, Osborn & Gillespie, 1994; Abel, Rouleau, Lawry, Barret, & Camp, 1990; Osborn, Abel, & Warberg, 1995). These studies have built on the previous finding that visual reaction time (VRT) could be used to differentiate between homosexual and heterosexual participants (Wright & Adams, 1994) and have demonstrated a significant difference in reaction time between admitted child molesters and community controls. The AASI-2 involves presenting seven slides in each of 16 categories of interest. The slides display a variety of clothed individuals. Individuals vary in age from young children (two to four years old), older children (eight to ten years old) adolescents (fourteen to seventeen years old), and adult (twenty-one years or older). Individuals are African-American and Caucasian and male and female. Forty-two further slides are intended to detect six other paraphilic interests (somasochism towards adult males, somasochism towards females, voyeurism towards adult females, frottage towards adult females, fetishism towards women's underwear, and exhibitionism towards adult women). Visual reaction time is recorded along with the participants self report of arousal. Self-report is rated on a seven point Likert scale, wherein one is labeled "highly sexually disgusting," four "sexually neutral," and seven "highly sexually arousing." They report reliabilities of .84 to .90 (Abel et al. 1995) suggesting that the test may be equivalent or superior to PPG measurement in terms of internal consistency. Abel, Jordan, Rouleau, Emerick, Barboza-Whitehead, and Osborn (2004) expanded

their use of the AASI-2 and found evidence that juvenile sex offenders showed higher viewing times on the AASI-2 using a sample in excess of seventeen hundred participants. They found similar differences in VRT between admitted child molesters and controls, although in this case, the control group consisted of suspected child molesters who had been investigated and were believed to be not guilty. All of these studies used only admitters in their experimental group.

Smith and Waterman (2004) used an emotion stroop test on incarcerated sex offenders comparing them to incarcerated violent offenders, and incarcerated non-violent offenders, as well as an undergraduate student comparison group. Participants completed a stroop task using six classes of words. These classes were: aggressive words, sexual words, positive emotion words, negative emotion words, neutral words, and color words. They generated latency scores for each class of items comparing mean reaction times for each category with mean reaction time for the neutral category. Although using a small sample sized, Smith and Waterman found an overall significant difference between all four groups on the aggressive words, but post-hoc analysis revealed that when each group was compared to each other group only the violent offender and the student groups were significantly different from each other. Violent and sexual offenders were significantly slower in reaction time from the student comparison with sexually themed words. Interestingly, violent and sexual offenders were similar to each other on this category. This provides support for the hypothesis that sexual offending may be linked more closely to impulsiveness and criminal versatility than to a specific underlying deviant sexual arousal. These groups also reported comparative levels of impulsiveness on the Barratt Impulsivity Scale (Patton, Stanford, & Barratt, 1995).

All of these studies share one inherent flaw in terms of prediction and detection. The researchers investigate the characteristics of admitted or convicted sex offenders and then make

the logical jump that these differences will be predictive of offending or recidivism. As yet, no longitudinal studies have assessed individuals and then followed them to determine if they subsequently offend. Ultimately, all of the studies using physiological or psychophysiological measures discussed share this key flaw. All of these measures record physiological data and use it to infer not only an internal state (the state described as deviant sexual arousal) but also assume that this internal arousal state will cause behaviors. For the most part moderating or mediating factors such as self-control, conscience, empathy, social skills, ability to develop normative relationships, and sexual relations, and social support are placed in the shadow of this physiological process. Only recently has investigation begun in earnest to map and describe the factors that lead from deviant sexual arousal to deviant sexual behavior. Research in this area must include investigation of non-sexual factors and characteristics that influence an individual to progress to initiating deviant sexual behavior. Explanations of the transition from deviant sexual arousal to deviant sexual behavior have examined the heterogeneity both of the general criminal population and the sex offender population as well as the variety of crimes sexual offenders tend to participate.

APPENDIX C

SUBSCALES OF THE EXTERNALIZING INVENTORY (EI)

The externalizing inventory contains 24 subscales. Scales load on two independent factors, impulsive and unreliable behavior and drug use/abuse. The relational aggression subscale includes spreading lies about others, insulting others, and interfering with others' relationships. The physical aggression subscale measures violence towards others, fighting, and overuse of physical restraint. It also covers thinking about the use of weapons and threats. The destructive aggression subscale addresses violence towards objects, possessions, and properties, such as vandalism and fire starting. The empathy subscale measures sympathy, and lack of sympathy towards other people and the respondents concern about the effects of their actions on them. The blame externalization subscale includes items related to denial and the feeling that one has been unjustly blamed or punished for ones actions. The alienation subscale covers the belief that one has been manipulated or mistreated by others. The alcohol subscale use covers items related to the use of alcohol. The alcohol problems subscale contains items related to problematic consequences from the use of alcohol. The marijuana use subscale, like the alcohol use subscale, assesses the use of marijuana without reference to problematic consequences. The marijuana problems subscale measures problematic consequences from marijuana use. The general drug use subscale covers the use of drugs without discussing negative consequences. The general drug problems subscale asks questions about general drug abuse, noting the presence of negative consequence from the use of drugs. The problematic impulsivity subscale addresses lack of control over behavior and impulses when faced with negative consequences. Items cover impulsivity perceived to be harmful by the individual and feelings of loss of control over behavior. The planful control subscale includes negatively scored impulsivity items addressing

domains such as foresight and restraint. The impatient urgency subscale included items probing for the need for immediate gratification. The criminal theft subscale includes content related to general theft behaviors, such as robbery or burglary. The fraud subscale included items related to taking money or other benefits through deception, as opposed to force or stealth. The honesty subscales reflects truthfulness and a dislike of deceptive behavior. The irresponsibility subscale includes items addressing failure to meet commitments and obligations across domains such as social or vocational demands, as well as failure to meet financial requirements. The dependability subscale covers content regarding conscientiousness, commitment, and the capacity to meet obligations. The rebelliousness subscale includes content related to a rejection of authority and a desire to violate rules. The excitement seeking subscale includes thrill-seeking and arousal focused behaviors. The boredom proneness subscale reflects susceptibility to boredom and tedium and the perception that it is a highly negative state.

APPENDIX D

SOLICITATION POST FOR WEB FORUMS AND ADVERTISING TEXT

Hello,

I am posting this with the permission of the moderators/webmaster. My name is Felix Smith and I am a doctoral student at Central Michigan University. My dissertation topic relates to sexual behavior.

I am asking for any adult (over 18) who is willing to complete an anonymous and confidential online survey. I am investigating how common various sexual behaviors are and how they relate to a variety of personality characteristics such as extroversion, openness to new experiences, and legal history. One reason I am conducting this research is that currently we don't know how common these presumed unusual sexual activities are. Many assumptions are made about sexual behaviors and we need better data to evaluate those assumptions.

If you complete the survey you will receive feedback regarding your personality characteristics. There is no feedback on sexual material, only on personality characteristics. This feedback is for entertainment purposes only and could not be used to identify mental health issues. No sexual images are presented.

No tracking data is gathered. I appreciate that sex is a sensitive subject and I am taking steps to prevent linking anyone's answers to them.

If you are under the age of 18, please **do not** participate, as your data cannot be used.

The link for the study is:
onlinepsychsurvey.com

Thanks for your interest.

Felix Smith

APPENDIX E

WELCOME PAGE TEXT

My name is Felix Smith and I am doctoral student at Central Michigan University. Data from this survey will serve as the basis of my dissertation

The survey asks about explicit sexual behavior, personality traits, and includes questions about illegal behavior. It is anonymous and confidential and intended **only for adults** over the age of 18.

When you click on the button below, the first page you see will be a consent form. After you have completed this, you will see the survey items. When you have completed the survey, you will receive personalized feedback regarding your personality. No feedback is included on sexual material.

No tracking data is gathered. I appreciate that the questions are of a sensitive nature and have taken steps to protect your privacy, anonymity, and confidentiality.

APPENDIX F
CONSENT FORM



Study Title: Personality and Low-Base Rate Sexual Behaviors

Researcher: Felix Smith, M.A.

Contact Details: smith1fb@cmich.ed, 989-607-0390

Introductory Statement

Thank you in advance for taking the time to consider participating in our research study. This project involves asking adults (over 18) to complete a survey asking about sexual behaviors and fantasies as well as personality measures and criminal history. Details of the project are provided in this consent form. This study is being conducted as part of a doctoral dissertation. I welcome any inquiries you may have. I can be reached in the Psychology Department at Central Michigan University, Mount Pleasant, MI 48859 via telephone at 989-607-0390 or email at smith1fb@cmich.edu.

What is the purpose of this study?

The purpose of this study is to explore personality characteristics and interests as well as participation in common and uncommon sexual behaviors. It is our intention to help find characteristics and attitudes that are related to specific sexual interests.

What will I do in this study?

In this on-line study, you will be asked to complete several pages of questions related to your personality and attitudes. You will also be asked to provide information on your interest and participation in a wide variety of sexual activities and prior criminal activities. You will **not** be asked to provide any personally identifying information. When you complete the survey you will receive feedback regarding your personality traits.

How long will it take me to do this?

This survey is expected to take about 30-40 minutes.

Are there any risks of participating in the study? Many of the questions in this survey ask about explicit sexual behavior and illegal behavior. These questions are sensitive and may elicit uncomfortable feelings. If you are uncomfortable providing this information, you may stop

completing the study without penalty. Information regarding mental health services in the community will be provided after completion of the study in case you feel discomfort and wish to speak with someone. Although our website utilizes encryption technology, if your computer has been compromised with spyware, endorsing illegal activities could put you at legal risk. You can reduce this risk by installing anti-virus and anti-spyware software on your computer.

What are the benefits of participating in the study?

This study is intended to help understand better what factors are involved in uncommon sexual interests as well as helping us see how common these behaviors are. Currently much of our knowledge in this area is based on assumptions and possible misunderstandings. You have the opportunity to help us correct these misconceptions.

Will anyone know what I do or say in this study (Confidentiality)?

We have made efforts to maintain your confidentiality and anonymity. No IP or “cookie” information will be recorded. Although I have worked to ensure confidentiality on this website, it should be noted that if your computer has been infected by spyware confidentiality cannot be assured.

Will I receive any compensation for participation?

You will not receive any compensation. However, if you complete the study you will receive feedback regarding your personality style. This information is intended to be of personal interest and is not part of the study.

Is there a different way for me to receive this compensation or the benefits of this study?

This is a one-time online study and there is no other way to participate in it.

Who can I contact for information about this study?

The researchers can be reached through the Psychology Department at Central Michigan University at 989-774-3001. The lead researcher may be reached at smith1fb@cmich.edu or by telephone on 989-607-0390. You may contact faculty advisor Stuart Quirk, Ph.D., at stuart.quirk@cmich.edu, or 989-774-6486.

If you would like to speak with someone at the conclusion of the survey regarding anything that brought you discomfort, the following free services may be used to find a therapist in your local area

<http://locator.apa.org/>
<https://www.find-a-therapist.com/>

You are free to refuse to participate in this research project or to withdraw your consent and discontinue participation in the project at any time without. Your participation will not affect your relationship with the institution(s) involved in this research project.

If you are not satisfied with the manner in which this study is being conducted, you may report (anonymously if you so choose) any complaints to the Institutional Review Board

by calling 989-774-6777, or addressing a letter to the Institutional Review Board, 251 Foust Hall Central Michigan University, Mt. Pleasant, MI 48859.

I verify by clicking “Yes” below that I have read, as well as understand, the information that has been provided. I am 18-years-old or older and agree to participate in the project as described above.

- Yes, I **do** consent to participate in this study
- No, I **do not** consent to participate in this study

You can print a copy of this form for your records if you wish

APPENDIX G
DEMOGRAPHICS

Gender: _____

Age: _____

Ethnicity: Caucasian African American Hispanic Native American Asian

Other (specify): _____

Nationality: _____

Highest Level of Education: Some High School High School Graduate

Some College Associates Degree Bachelors degree

Masters/Specialist degree Other higher degree (specify)_____

As far as you know, has anyone in your immediate biological family (parents, grandparents, brothers or sisters, uncles or aunts) suffer(ed) from any of the following (check any that fit):

- Intense distress
- Phobic fears
- Constant worries over minor things
- Prolonged deep sadness (for weeks at a time)
- Low energy
- Suicide attempt or thoughts
- Disorganized thinking or speech
- Hearing voices
- Strongly held false beliefs,
- Excessive drinking leading to job loss or other life problems
- Family problems from drinking
- Daily drinking for months at a time
- None of the previous statements apply to me.

Were you raised with your biological family? YES NO

Have you ever had a head injury? Head injuries are common from car accidents, falling from a tree, bicycle crashes, sports collisions, etc. Have you experienced such a blow to the head?
Yes No

Have you ever lost consciousness? Yes No

APPENDIX H

FANTASY AND ACTION INVENTORY (FAI)

	I have fantasized about this act		I would like to do this act with a consenting person		I would force a non-consenting person to do this act with me if I knew I would get not face legal consequences.		I have done this act	I have done this act with another person
	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Yes/No
Masturbation or other self stimulation								
Masturbation using a mechanical aid, such as a vibrator or fake vagina								
Viewing softcore pornography (Playgirl or hustler, featuring nude models without sexual activities taking place)								
Viewing hardcore pornography (pornography featuring sex acts being performed in frame)								
Viewing hardcore pornography (pornography featuring sex acts being performed in frame) with three or more people								

The following refer to acts performed alone or with either gender :								
	I have fantasized about this act		I would like to do this act with another person who was		I would do this act with an non-consenting person if I knew		I have done this act alone	I have done this act with another
	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Yes/No
Watch pornography featuring anal sex								
View pornography featuring sexual fetish materials (shoe fetish, leather fetish, rubber fetish)								
Watch pornography featuring bondage/people being tied or restrained								
Watch pornography featuring people being spanked, whipped or caned								
Watch pornography featuring people being sexually humiliated								
Watch pornography featuring sadomasochistic sexual acts (people being tied/restrained/spanked) and penetration								

The following refer to acts performed alone or with either gender :								
	I have fantasized about this act		I would like to do this act with another person who was		I would do this act with an non-consenting person if I knew		I have done this act alone	I have done this act with another
	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Yes/No
Watch pornography featuring simulated rape								
Watch pornography featuring actual rape								

The following refer to acts performed only with the opposite gender :							
	I have fantasized about this act		I would like to do this act with a consenting person		I would do this act with a non-consenting person if I knew I would not face legal consequences		I have done this act
	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No
Touching someone else's private parts (buttocks, breasts, etc)							
Touching someone else's genitals							
Performing oral sex on someone else							
Having oral sex performed on you by another person							
Engaging in vaginal sex with another person (if applicable)							
Engaging in anal sex with another person.							

The following refer to acts performed only with the same gender :							
	I have fantasized about this act		I would like to do this act with a consenting person		I would do this act with an non-consenting person if I knew I would not face legal consequences		I have done this act
	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No
Touching someone else's private parts (buttocks, breasts, etc)							
Touching someone else's genitals							
Performing oral sex on someone else							
Having oral sex performed on you by another person							
Engaging in vaginal sex with another person (if applicable)	N/A option		N/A option		N/A option		N/A option
Engaging in anal sex with another person.							

The following refer to acts performed alone or with a person either gender. These items refer **only** acts performed for **sexual pleasure or gratification**, not acts performed to threaten or intimidate.

	I have fantasized about this act		I would like to do this act with a consenting person		I would do this act with an non-consenting person if I knew I would not face legal consequences		I have done this act
	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	
Wear a blindfold before or during sexual activity							
Have someone else wear a blindfold before or during sexual activity							
Spank someone during sex							
Being spanked by someone else during sex							
Spank or strike someone with a whip, crop, cane, or other implement							
Spanked or struck by someone else with a whip, crop, cane, or other implement							
Restrain or tie someone up before/during sex							
Be restrained or tied up before/during sex							
Have another person wear a gag or mask during sexual activity							

The following refer to acts performed alone or with a person either gender. These items refer **only** acts performed for **sexual pleasure or gratification**, not acts performed to threaten or intimidate.

	I have fantasized about this act		I would like to do this act with a consenting person		I would do this act with an non-consenting person if I knew I would not face legal consequences		I have done this act
	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	
Wear a gag or mask during sexual activity							
Have someone kiss your feet or shoes							
Kiss someone else's feet shoes							
Have someone else pretend to be your servant or slave							
Pretend to be someone else's servant or slave							

The following refer to acts performed alone or with a person either gender, but they apply to **only** act performed for **sexual pleasure or gratification**, not acts performed to threaten or intimidate.

	I have fantasized about this act		I would like to do this act with a consenting person		I would do this act with an non-consenting person if I knew I would not face legal consequences		I have done this act
	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	
Pretended to be an animal or other non-human during sex (such as a pony or dog)							
Have someone else pretend to be an animal or other non-human during sex (such as a pony or dog)							
Deprive someone of oxygen for the purpose of sexual excitement							
Been deprived (either by yourself or by someone else) of oxygen for the purpose of sexual excitement							
Engage in a rape fantasy as the perpetrator (Have my partner pretend they were unwilling to engage in sex but engage in a sex act anyway)					Blanked Out	Blanked Out	
Engage in a rape fantasy as the victim (pretend I was unwilling to engage in sex but engage in a sex act anyway)					Blanked Out	Blanked Out	

The following refer to acts performed alone or with a person either gender, but they apply to **only** act performed for **sexual pleasure or gratification**, not acts performed to threaten or intimidate.

	I have fantasized about this act		I would like to do this act with a consenting person		I would do this act with an non-consenting person if I knew I would not face legal consequences		I have done this act alone	I have done this act with another person
	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Yes/No
Dress up in a uniform in order to play a role during sexual activities								
Have another dress up in a uniform in order to play a role during sexual activities								
Dress up in embarrassing or humiliating clothes								
Have another to dress up in embarrassing or humiliating clothes								
Wear opposite sex clothing for the purpose of sexual arousal or during sex								
Have your partner wear opposite sex clothing for the purpose of sexual arousal or during sex								

The following refer to acts performed alone or with a person either gender, but they apply to **only** act performed for **sexual pleasure or gratification**, not acts performed to threaten or intimidate.

	I have fantasized about this act		I would like to do this act with a consenting person		I would do this act with an non-consenting person if I knew I would get away with it		I have done this act	I have done this act with another person
	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Yes/No
Wear rubber/PVC clothing for sexually arousing purposes								
Have another wear rubber/PVC clothing for sexually arousing purposes								
Wear leather clothing for sexually arousing purposes								
Have another wear leather clothing for sexually arousing purposes								
Wear any other kinds of special clothing for sexual arousing purposes (such as shoes)								
Had another person wear any other kinds of special clothing for sexual arousing purposes (such as shoes)								

The following refer to acts performed alone or with a person either gender, but they apply to **only** act performed for **sexual pleasure or gratification**, not acts performed to threaten or intimidate.

	I have fantasized about this act		I would like to do this act with a consenting person		I would do this act with an non-consenting person if I knew I would not face legal consequences		I have done this act
	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No
Insert an object other than a penis into someone's vagina							
Have an item other than a penis inserted into your vagina	N/A option Added		N/A option Added		N/A option Added		N/A option Added
Insert an object into someone's anus							
Have an object inserted into your anus							
Use a “strap-on” penis on someone							
Have a “strap-on” penis used on you							
Give someone else an enema							
Receiving an enema							

The following refer to acts performed alone or with a person of either gender, but they apply to **only** act performed for **sexual pleasure or gratification**

	I have fantasized about this act		I would like to do this act with a consenting person		I would do this act with an non-consenting person if I knew I would get away with it		I have done this act
	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No	Strength (1-10)	Yes/No
Touch someone's breasts or genitals in public							
Persuade someone to touch your breasts or genitals in a public							
Rub your genitals against someone in private							
Rub your genitals against someone in public							
Persuade someone to undress for you when they didn't want to			Blanked Out	Blanked Out			
Persuade someone to engage in oral with you when they didn't want to			Blanked Out	Blanked Out			
Persuade someone to have sex with you when they didn't want to			Blanked Out	Blanked Out			
Physically force someone to undress for you			Blanked Out	Blanked Out			
Physically force someone to engage in oral sex with you			Blanked Out	Blanked Out			
Physically force someone to have sex with you			Blanked Out	Blanked Out			

This refer to things that you have done, either before the age of 18 or after the age of 18 .						
	<u>Before</u> 18 years old			<u>After</u> 18 years old		
	I have done this	I have been arrested for this	I have been convicted of this	I have done this	I have been arrested for this	I have been convicted of this
	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Did you bully, threaten or intimidate others?						
Did you often start physical fights?						
Use a weapon that could cause serious physical harm						
Were you physically cruel to people?						
Were you physically cruel to animals?						
Did you steal from someone while confronting them (e.g., mugging)?						
Did you set fires on purpose to cause damage?						
Did you destroy other people's property on purpose?						
Did you break into someone else's house, building, or car?						
Did you often lie?						
Did you steal from someone without confronting them (e.g. shoplifting)						

This refer to things that you have done, either before the age of 18 or after the age of 18 .						
	Before 18 years old			After 18 years old		
	I have done this	I have been arrested for this	I have been convicted of this	I have done this	I have been arrested for this	I have been convicted of this
	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Did you stay out all night against your parents' rules before the age of 13?				Blanked Out	Blanked Out	Blanked Out
Did you run away from home?				Blanked Out	Blanked Out	Blanked Out
Did you skip school?				Blanked Out	Blanked Out	Blanked Out
Did you ever smoke tobacco?						
Did you drink alcohol?						
Did you ever engage in illicit substance use (e.g., marijuana, cocaine, etc.)?						

APPENDIX I

INTERNATIONAL PERSONALITY ITEM POOL: NEUROTICISM

	Item	Negatively Keyed
1	Am relaxed most of the time.	
2	Seldom feel blue.	
3	Get stressed out easily.	*
4	Worry about things.	*
5	Am easily disturbed.	*
6	Get upset easily.	*
7	Change my mood a lot.	*
8	Have frequent mood swings.	*
9	Get irritated easily.	*
10	Often feel blue.	*

APPENDIX J

INTERNATIONAL PERSONALITY ITEM POOL: OPENNESS TO EXPERIENCE

	Item	Negatively Keyed
1	Have a rich vocabulary.	
2	Have a vivid imagination.	
3	Have excellent ideas.	
4	Am quick to understand things.	
5	Use difficult words.	
6	Spend time reflecting on things.	
7	Am full of ideas.	
8	Have difficulty understanding abstract ideas.	*
9	Am not interested in abstract ideas.	*
10	Do not have a good imagination.	*

APPENDIX K

THE SUBTLE RAPE MYTH ACCEPTANCE SCALE (SRMAS)

<u>Please fill in the number most closely matching YOUR opinion using this scale:</u>						
Strongly Disagree		Neither Agree Nor Disagree			Strongly Agree	
1	2	3	4	5	6	7
1	Women are naturally more nurturing and make better caregivers than men.					
2	As a rule, no one wants to be hurt during sex					
3	A woman who goes to the home or apartment of a man on their first date implies that she is willing to have sex.					
4	Any female can get raped.					
5	Women sometimes say 'no' to sex even when they want it, so their partner will not think they are easy.					
6	Self-defense classes should be offered to all women at no charge.					
7	One reason that women falsely report a rape is that they have a need to call attention to themselves.					
8	I think that if they could manage it financially, most women would prefer to stay at home and have a man provide for them.					
9	Any healthy woman can successfully resist a rapist if she really wants to.					
10	There should be more social programs to prevent sexual assault.					
11	Women are socialized to be more docile and gentle than men.					
12	When women go around braless or wearing short skirts and tight tops, they are just asking for trouble.					
13	Sex and relationships would be easier if women would just say what they really Mean more often.					
14	In the majority of rape cases, the victim is promiscuous or has a bad reputation.					
15	Regardless of how a woman looks, no one has a right to force her to have sex.					
16	When it comes to sex women don't seem to know what they want.					
17	If a girl engages in necking or petting and she lets things get out of hand, it is her own fault if her partner forces sex on her.					
18	Women who hitchhike shouldn't complain if men to try to take advantage of them sexually.					

Please fill in the number most closely matching YOUR opinion using this scale:

Strongly Disagree		Neither Agree Nor Disagree			Strongly Agree	
1	2	3	4	5	6	7
19	A woman who is stuck-up and thinks she is too good to talk to guys on the street deserves to be taught a lesson.					
20	Many woman have an unconscious wish to be raped, and may then unconsciously set up a situation in which they are likely to be attacked.					
21	When investigating a rape it is better if a female police officer interviews the victim.					
22	If a woman gets drunk at a party and has intercourse with a man she's just met there, she should be considered "fair game" to other males at the party who want to have sex with her too. whether she wants to or not.					

Please fill in the number most closely matching YOUR opinion using this scale:

Almost All		About 25%	About 50%	About 75%	Almost None
1	2	3	4	5	
23	What percentage of women who are sexually assaulted would you guess report their experience to the police or other authorities?				
24	What percentage of women who report a rape do you believe actually experienced it?				
25	What percentage of women who report a rape would you say are lying because they are angry and want to get back at the man they accuse?				
26	What percentage of reported rapes would you guess are invented by women who discovered they were pregnant and want to protect their own reputation?				

APPENDIX L
RESPONSE STATEMENTS

Sample Feedback Statements

Sensation seeking scale

High: Individual's with this scoring profile test to be interested in a many different activities. They crave stimulation and love to do any try novel things. They may even be described by the cliché "the life and soul of the party," but more likely they just love to be doing exciting things as much as possible. They tend to get bored easily, but quickly re-engage when new and interesting activities come along.

Medium: Individual's scoring in this are typical in their desire to engage in activities. They tend to enjoy exciting things, but not to the point that it might get them in trouble. They are able to do dull tasks, but they get bored like anyone else might.

Low: Individuals with this scoring profile tend to be patient and focused on the long term. They can do what is necessary and skillfully engage in tasks that other may find tedious. They tend to shy away from wild parties and are not overly concerned with novelty for the sake of novelty.

Openness to experience (O)

High: People who score in this range tend to be fascinated by a wide variety of new and interesting experiences. They are driven to try things simply because they haven't before. They have a push to go to new places, see new things, and try activities because they haven't before.

Medium: People who score in this range represent most of the population. They may like to try new things, be it food, travel, or activities, but they struggle or go out of their way to try them.

Low: People who score in this range are not very interested in new and novel things. This isn't that there's something wrong, it's just that they don't see the strong pull that other's might to rush out and do everything just for the sake of doing it.

Empathy (Interpersonal reactivity index)

High: People who score in this range are very empathic. They tend to be well attuned to other people's moods and feelings and react to them strongly. People in this range will often hate to other people suffer.

Medium: People who score in this range are in the typical range for most of the population. They feel sympathy and empathy towards other people, but not to the point that it might prevent them from getting along with their lives.

Low: People who score in this range tend to be less sensitive to other people's feelings it might be that they don't notice other people feelings, or just that they are not bothered by them. This does not mean that they don't form relationships, or care about other people, it just means that it comes to them less naturally than it does for other people.

APPENDIX M

DEBRIEFING PAGE AND CONTACT INFORMATION FOR MENTAL HEALTH SERVICES

If you feel you have been disturbed by the content of this survey, the researchers can be reached through the Psychology Department at Central Michigan University at 989-774-3001.

The lead researcher may be reached at smith1fb@cmich.edu or by telephone on 989-607-0390.

The supervising faculty member, Dr. Stuart Quirk, can be reached at quirk1sw@cmich.edu.

The Institutional Review Board at Central Michigan University can be reached at 251 Foust Hall, Central Michigan University, Mount Pleasant, MI, 48859 or on 989-774-6401. The website is available at: http://www.orsp.cmich.edu/step2/irb_committee.shtml

If you would like to speak with someone regarding anything that brought you discomfort, the following free services may be used to find a therapist in your local area

<http://locator.apa.org/>

<https://www.find-a-therapist.com/>

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