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FOOT OBSESSED BUT NOT NECESSARILY
DEPRESSED: THE RELATIONSHIP
BETWEEN PARAPHILIAS AND MENTAL
HEALTH OUTCOMES

Amber Eagan

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FOOT OBSESSED BUT NOT NECESSARILY DEPRESSED: THE RELATIONSHIP
BETWEEN PARAPHILIAS AND MENTAL HEALTH OUTCOMES

A Thesis

Presented to

the Faculty of the Department of Psychology

Murray State University

Murray, Kentucky

In Partial Fulfillment

of the Requirements for the Degree

of Master of Science in Clinical Psychology

by Amber Eagan

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Abstract

The present study aimed to examine the prevalence rates of paraphilic arousal, behavior, desire, and distress as well as to explore the relationship between paraphilic engagement and psychological distress in a college and online sample. Participants completed a number of online self-report measures that asked about their experience with seven paraphilic behaviors, their desire to experience each paraphilic behavior, distress associated with engaging in each paraphilic behavior, in addition to their current symptoms of depression, anxiety, and stress. The majority of the participants (69%) reported engaging in at least one paraphilic behavior at least once in their lifetime, and the vast majority of the overall sample indicated a desire to experience at least one paraphilic behavior. Significantly more participants from the online subsample relative to the college subsample reported engaging in and the desire to engage in fetishism, voyeurism, masochism, and sadism while significantly more males than females reported arousal, behavior, and the desire to engage in voyeuristic behavior. Transvestic behavior was the only paraphilia and paraphilic dimension that predicted greater depression, anxiety, and stress. The findings are consistent with previous research that has demonstrated that not all individuals who participate in paraphilic behaviors report feelings of distress, which challenges the notion that unconventional sexual behaviors are maladaptive or that they belong in the DSM-5.

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Chapter I: Review of the Literature

Compared to traditional sexual behaviors in the United States, such as monogamous sex, oral sex, vaginal intercourse, and sexual intercourse within marriage, unconventional sexual behaviors and fantasies are often thought to be just that: rare, odd, and unaccepted (Sadock, 1995). For example, in a study that examined a variety of sexual attitudes and practices, it was found that among 200 societies, the majority strongly disapproved of premarital sex, believed that “wife lending” or extramarital sex for wives was not allowed, and believed that the frequency of homosexuality was rare, if not absent (Broude & Greene, 1976). Paraphilias are considered to fall on the extreme end of abnormal sexual behaviors and have been viewed as being intrinsically bizarre due to the way some of them have been characterized as being criminal in nature (Arrigo & Purcell, 2001).

The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association, 2013) is categorized by a number of mental disorders and related criteria and is most commonly referred to by mental health practitioners in order to make more reliable diagnoses. Although the DSM has been edited and revised for over the past 60 years, paraphilias were not introduced until the third edition in 1980. Abnormal sexual behaviors, however, were considered in earlier editions (e.g., sexual deviations, psychopathic personality with pathologic sexuality, etc). Since then, the term paraphilia has come to be defined by the DSM-5 as “any intense and

persistent sexual interest other than sexual interest in genital stimulation or preparatory fondling with phenotypically normal, physiologically mature, consenting human partners” (American Psychiatric Association, 2013, p. 685). Relatedly, a paraphilic disorder is conceptualized as a paraphilia that is causing the individual distress or impairment or as a paraphilia that has introduced harm to the individual or others. Therefore, a paraphilia is required for having a paraphilic disorder but the presence of a paraphilia alone does not warrant a diagnosis (American Psychiatric Association, 2013). Moreover, each paraphilic disorder has a Criterion A category, which specifies the type of sexual interest over a period of at least 6 months, and a Criterion B category, which specifies whether the individual has acted on the type of sexual interest indicated in Criterion A along with the consequences of the paraphilia.

Among the hundreds of paraphilias (Arrigo & Purcell, 2001), some of the more extreme include erotophonophilia (sexual arousal from violently killing one’s victim), necrophilia (sexual arousal from corpses), symphorophilia (sexual arousal from watching catastrophes or accidents), and zoophilia (sexual arousal from fantasies of acts with animals) (Money, 1984). Table 1 details some of the more commonly occurring paraphilias according to the DSM-5, all of which require the presence of sexual arousal from specific behaviors (5th ed.; DSM–5; American Psychiatric Association, 2013).

Table 1. *List of DSM-5 Paraphilias and their Associated Definitions and Prevalence Rate*

| Paraphilia | Definition | Prevalence |
|------------------|---|---|
| Voyeurism | Watching someone who is naked, disrobing, or engaging in sexual activity without their knowledge of being observed. | Lifetime: 12% in males, 4% in females. |
| Frotteurism | Rubbing up against or touching a person without their consent. | 30% of adult males in the general population. |
| Sexual Masochism | Experiencing physical or emotional pain such as being humiliated, beaten, bound, or made to suffer. | 2.2% of males and 1.3% of females in Australia in the past 12 months. |
| Sexual Sadism | Psychological or physical suffering of others. | Ranges from 2-30% depending on criteria. |
| Pedophilia | Sexual arousal, urges, or behaviors related to prepubescent children. | 3-5% in the males. |
| Fetishism | Inanimate objects or a specific focus on non-genital parts of the body. | Not specified. |
| Exhibitionism | Exposing one's genitalia to an unsuspecting person. | 2-4% in males. |
| Transvestism | Cross-dressing. | Fewer than 3% of males. |

Note. Adapted from *Diagnostic and Statistical Manual of Mental Disorders* (p. 686-703), by Author, 2013, Arlington, VA: American Psychiatric Publishing.

Although they are not considered to be normative sexual desires or practices, paraphilic fantasies and engagement have been shown to be fairly common. For example, 64% of a sample of college women reported having at least one sexual fantasy involving coercion or force against them (Strassberg & Locker, 1998), 14% of those who identified as bisexual disclosed participating in bondage and discipline, “sadomasochism” or dominance and submission (BDSM) in the past year (Richters, De Visser, Rissel, Grulich, & Smith, 2008), approximately 50% of participants from the general population reported some type of paraphilic interest or behavior (Joyal & Carpentier, 2016) and 9% of a sample of male undergraduates reported having sexual fantasies about children (Briere & Runtz, 1989).

While relatively common in the general population, rates of abnormal sexual

fantasies and behaviors appear to be greater in sexual offenders compared to non-forensic samples (Prentky et al., 1989; Gee, Devilly, & Ward, 2004). For instance, Raymond, Coleman, Ohlerking, Christenson, and Miner (1999) examined psychiatric comorbidity in male pedophilic sexual offenders and found that 53% of the sample met criteria for another paraphilia diagnosis in their lifetime, with voyeurism being the most common at 26.7%. Similarly, McElroy et al., (1999) observed psychiatric features of male sexual offenders and assessed their legal histories as well as their physical and sexual abuse histories. The results demonstrated high rates of lifetime Axis I disorders based on the DSM-IV system of classification, with 58% of the sample having a paraphilia (McElroy et al., 1999). Furthermore, Longo and Groth (1983) investigated juvenile sexual offenses, including compulsive masturbation, exhibitionism, and voyeurism, in the histories of adult child molesters and rapists. The researchers concluded that 54%, 32%, and 24% of the combined sample exhibited voyeurism, compulsive masturbation, and exhibitionism as juveniles, respectively. This research implies that abnormal sexual behaviors and engagement remains pervasive in forensic samples.

Research has also shown similar prevalence rates cross-culturally (Oliveira & Abdo, 2010). For example, a study by Makanjuola, Adegunloye, and Adelekan (2008) investigated prevalence rates and sexual preference using a sample of male and female high school teachers in Nigeria. It was found that over one-fifth of the sample reported experience with paraphilic behaviors, with voyeurism being the most common (Makanjuola et al., 2008). Similarly, Ahlers et al., (2011) examined paraphilia-associated sexual arousal patterns (PASAP) in a sample of men in Germany and concluded that 62% of the sample reported at least one PASAP, with 9.5% of men reporting pedophilic

PASAP in sexual fantasies (Ahlers et al., 2011). These findings suggest that the way we think of paraphilic behaviors and interests as eccentric may no longer be accurate.

The inclusion of paraphilic disorders as they are now remains controversial (Moser & Kleinplatz, 2006; Krueger & Kaplan, 2012). After past research has shown paraphilic behaviors and interests to be relatively common in non-forensic samples as well as in the general population, it is possible that researchers have over-pathologized these practices. Given the likelihood that these rates may be higher in populations that have not been studied or in samples that have not been reached, it remains imperative that researchers consider the criteria that dictates the inclusion of paraphilic behaviors in the DSM. Conversely, due to the way paraphilic disorders and related behaviors, urges, and fantasies have been linked to negative consequences such as distress and impairment, some researchers believe that their placement in the DSM-5 remains justified. Similarly, because some paraphilic disorders are known to introduce harm to others (e.g., pedophilia), many would argue that removing paraphilic disorders from the DSM-5 would be a mistake.

Research Supporting the Inclusion of Paraphilic Disorders in the DSM-5

Previous research has shown that paraphilic disorders, interests, and behaviors have been associated with number of clinical factors experienced by the individual including anxiety and depression. Kafka and Hennen (2002) found that mood disorders, particularly major depression and dysthymic disorder early onset subtype, were the most commonly diagnosed comorbid disorders in a sample of men with paraphilias (such as exhibitionism, voyeurism, and pedophilia) and paraphilia-related disorders (such as compulsive masturbation, dependence on pornography, and protracted promiscuity).

Additionally, the authors also demonstrated that social phobia was the most common anxiety disorder to be diagnosed, which was evident in approximately one-fifth of the sample (Kafka & Hennen, 2002). These findings suggest that those with paraphilias or paraphilia-related disorders may suffer from comorbid conditions that have been shown to have high prevalence rates in the general population compared to other disorders.

Relatedly, researchers have been able to link impulsivity to paraphilic offending behaviors in forensic samples (Giotakos, Markianos, Vaidakis, & Christodoulou, 2003; Armentrout & Hauer, 1978). Mann and Hollin (2007) investigated how sexual offenders, including rapists and child molesters, explained their offending. The authors found that child molesters often attributed their offending to sexual gratification while rapists more frequently explained their offending to impulsivity, grievance, or sexual need (Mann & Hollin, 2007). Additionally, Cohen and colleagues (2002) compared impulsive personality traits between healthy controls and male pedophiles. Based on participant responses to three measures of impulsive-aggressive personality traits, it was found that compared to controls, male pedophiles had significantly higher scores on measures examining personality impairment. Relatedly, although impulsive personality traits were not found to predominate in pedophiles, there was still evidence of impulsivity (Cohen et al., 2002). These results indicate that those diagnosed with paraphilias may have a more salient history of psychopathology and impulsivity.

Self-esteem is another construct that has been shown to be connected to paraphilic engagement. For instance, Schwartz and Masters (1983) have identified some of the conceptual components of treating paraphilias and claimed that these components will be used to inform subsequent treatment interventions. The researchers have conceptualized

paraphilias as a pair-bonding disorder, and that targeting social skills deficits, dating anxiety, sexual dysfunction, self-esteem difficulties, and other related areas may be the most fruitful in treating individuals with paraphilias. In regards to self-esteem, the researchers claim that low self-esteem is common in sexual offenders and that sexual offenders typically loathe themselves and their behavior. Therefore, enhanced self-esteem was noted to be one possible avenue for reducing the addictive behavior of paraphilias (Schwartz & Masters, 1983). This concept and recommendation for intervention strategies is further supported by research that has concluded that sexual offenders routinely experience low self-esteem (Marshall, Marshall, Serran, & O'Brien, 2009; Marshall, 1997; Marshall, Cripps, Anderson, & Cortoni, 1999).

Moreover, paraphilic disorders and engagement are also believed to belong in the DSM-5 because of the way individuals with these diagnoses have negatively affected others. Sexual offenders and pedophiles in particular have been researched extensively and have been shown to possess a willingness to introduce others to harm. For example, according to a meta-analysis of 82 recidivism studies, sexual offenders and rapists were shown to have an antisocial orientation which makes them more likely to be inclined to commit crimes, hurt others, and convince themselves that they are innocuous (Hanson & Morton-Bourgon, 2005). Furthermore, abnormal sexual interests and desires have been shown to predict sexual offense recidivism. Hanson and Bussiere (1998) observed a number of factors that were associated with recidivism among sexual offenders and demonstrated that sexual offense recidivism was the most strongly predicted by sexual deviancy, which included deviant sexual preferences. These findings establish a link between paraphilic sexual interests and sexual re-offending which suggests that abnormal

sexual desires may make it more likely for individuals to commit future crimes and to continue to victimize others.

Research Supporting the Exclusion of Paraphilic Disorders in the DSM-5

Although paraphilic interests and engagement have often been shown to correlate with distress, impairment, and psychopathology, studies have shown that not all of individuals with these desires and/or behaviors are dysfunctional. One noteworthy study that examined the prevalence of paraphilic behaviors and interests in the general population is provided by Joyal and Carpentier (2016). The paraphilic behaviors and interests that were examined included those listed in the DSM-5, such as fetishism, transvestitism, voyeurism, exhibitionism, frotteurism, pedophilia, masochism, and sadism. The researchers aimed to investigate rates of desire for and experience in paraphilic behaviors in 1,040 adults from Quebec, Canada. Participants completed a survey by telephone or online. It was found that almost half of the sample reported an interest in experiencing at least one paraphilic behavior. Moreover, the desire to experience and experience in voyeurism (46.3% desire and 34.5% experience), fetishism (44.5% desire and 26.3% experience), frotteurism (26.7% desire and 26.1% experience), and masochism (23.8% desire and 19.2% experience) were greater than the remaining four paraphilic behaviors in both men and women. Not only do these findings suggest that paraphilic behaviors and interests may be more common than previously believed, but the authors were also able to conclude that masochism in particular was associated with greater satisfaction with one's own sex life (Joyal & Carpentier, 2016). The results from this study call into question the effect that paraphilic interests have on the individuals who engage in them in that they challenge previous findings that support the

inclusion of paraphilias in the DSM-5.

Furthermore, there is a need to better understand and compare those with paraphilic interests and desires to those who are actually engaging in these behaviors. For example, because pedophilia is one of the most commonly studied paraphilias and has shown to be comorbid with a number of clinical factors such as mood and anxiety disorders (Raymond et al., 1999), the focus often remains on the functioning of pedophilic sexual offenders and less on those with only thoughts and interests, such as pedophilic desires and fantasies rather than actual behavior. Furthermore, a study conducted by Långström and Seto (2006) investigated correlates of self-reported voyeuristic behavior and exhibitionistic behavior using a nationally representative Swedish sample. The authors also observed sexual fantasies related to voyeurism and exhibitionism. It was found that sexual fantasies were shown to be associated with the likelihood of engaging in either voyeuristic or exhibitionistic behavior; however, the authors did not comment on how these individuals were functioning. Instead, the authors reported on the psychological functioning of those engaging in voyeuristic behavior and exhibitionistic behavior (Långström et al., 2006). It remains increasingly important to consider those who have paraphilic interests and fantasies and to understand their psychological well-being in addition to those who engage in the behaviors directly.

The Current Study

For the purpose of the current study, it is important to note how Joyal and Carpentier (2016) operationalized paraphilic experience and the desire to experience paraphilic behaviors. Experience was determined by whether participants had actually engaged in each paraphilic activity and how often they had done so. Additionally, desire

to experience a paraphilic behavior or activity was assessed based on an intensity-graded scale (Joyal & Carpentier, 2016). According to the way the authors came to define, measure, and understand these terms, it is suggested that paraphilic engagement was determined by the presence of arousal while paraphilic non-engagement was determined by the lack of arousal. In line with this reasoning, the absence of arousal would indicate a lack of desire to experience a paraphilic activity while the presence of arousal would indicate a desire to experience.

The current study investigated the prevalence rates of engagement in and desire for engagement in paraphilic behaviors in a college and online convenience sample located in the United States. The paraphilic behaviors that were assessed were voyeurism, frotteurism, masochism, sadism, fetishism, exhibitionism, and transvestism. Pedophilia was not observed in the current study because of the low prevalence rates that had been found by Joyal and Carpentier (2016) and because of the ethical risks associated with asking participants to disclose illegal behavior. Prevalence rates for arousal, behavior, desire, and distress across the different paraphilias were assessed for the overall sample. Based on the findings by Joyal and Carpentier (2016), it was hypothesized that males would have higher prevalence rates for paraphilic experience as well as the desire to experience each paraphilic category compared to females. Additionally, it was hypothesized that participants recruited from the online subsample would report significantly higher rates of paraphilic behavior compared to students from Murray State University. In line with previous research, it was also hypothesized that compared to the other paraphilias, voyeurism and fetishism would have the highest prevalence rates of engagement in and desire for engagement in both the college and online subsamples.

In addition, the relationship between and paraphilic desire and engagement and psychological distress was evaluated. As there was mixed evidence linking paraphilic interests and behaviors to negative clinical outcomes, the hypothesized relationship between psychological distress and paraphilic desire and engagement was non-directional.

Chapter II: Methodology

Participants

Students from Murray State University were recruited through the university's psychology department SONA system while participants from the online communities that were associated with engagement in sexual activity were recruited from Craigslist and Reddit. Descriptive statistics on the study's population are presented in further detail in the Demographics section of chapter four.

Measures

Demographics. Demographic information for the current study included categories such as age, sex, gender, race, religious affiliation, education level, sexual orientation, and other variables. More information is provided in the demographics section of chapter four.

Paraphilic Desire and Engagement. Paraphilic desire and engagement was assessed by asking participants to respond to a number of behavioral ratings scales that have been used in past research (Joyal & Carpentier, 2016; Ahlers et al., 2011; Ahlers, 2010). The first question determined the presence of sexual arousal (e.g., "have you ever been sexually aroused by showing your genitals to a stranger who was not expecting this?"). Subsequently, participants were then asked to indicate whether and how often they had engaged in each paraphilic category using a 4-point Likert scale. Paraphilic

distress was then assessed by asking participants if they have ever been bothered by engaging in each specific paraphilic category. Lastly, desire to experience was measured by asking participants if they would like to engage in each paraphilic behavior (e.g., “would you like to show your genitals to a stranger who is not expecting it?”) using an intensity graded scale. Due to the way Joyal and Carpentier (2016) dichotomized paraphilic behavior and desire to analyze associated prevalence rates in their study, the current study also dichotomized paraphilic behavior, desire, and distress. Although the authors did not make their reasoning explicit for why they chose to dichotomize these responses, the current study employed similar criteria in order to remain consistent with the questionnaire’s intended use and scoring procedures. More specifically, desire for paraphilic activities were dichotomized between at least some interest (scores of 1-3) and not at all (scores of 0) in the current study. Additionally, paraphilic experience was dichotomized between at least once in their lifetime (scores of 1-3) and never (scores of 0) while paraphilic distress was dichotomized between at least some degree of distress (scores of 2-4) and no distress (scores of 1).

Depression and Anxiety. The Depression Anxiety Stress Scale – 21 (DASS-21; Lovibond & Lovibond, 1995) is a 21-item self-report measure that identified and assessed symptoms of depression, anxiety, and stress over the past week (e.g., “I found it difficult to relax”). The DASS-21 uses a 4-point Likert scale. Responses to the items were added into a total psychological distress score. Higher scores indicate greater symptoms of depression, anxiety, and/or stress. Past research has shown that convergent validity for the DASS-21 had significant positive correlations for the three scales that made up the measure (Asghari, Saed, & Dibajnia, 2008). Internal consistency reliability

for the DASS-21 total score was reported as $\alpha = .94$. Test-retest reliability showed that over a three week testing period, the correlation of agreement between time one and time two for the anxiety, stress, and depression scales were .89, .85, and .77, respectively (Asghari, Saed, & Dibajnia, 2008). Previous research has also shown that individuals diagnosed with generalized anxiety disorder differ on scores related to depression ($M = 14.33$, $SD = 9.77$), anxiety ($M = 11.34$, $SD = 8.17$) and stress ($M = 22.36$, $SD = 9.90$) compared to those diagnosed with mood disorders, with $M = 25.21$, $SD = 10.24$ for depression, $M = 10.97$, $SD = 7.89$ for anxiety, and $M = 22.57$, $SD = 8.62$ for stress (Brown, Chorpita, Korotitsch, & Barlow, 1997). Moreover, in order to evaluate convergent validity, the DASS-21 was compared to a number of measures that were assumed to have similar constructs. The results showed significant positive correlations for the DASS-21 total scores with the Beck Anxiety Inventory (Beck & Steer, 1990) ($r = .71$), the Beck Depression Inventory 2 (Beck, Steer, & Brown, 1996) ($r = .75$), and the Positive Affect Negative Affect Scale-Negative (Watson, Clark, & Tellegen, 1988) ($r = .77$) (Gloster et al., 2008). The DASS-21 has demonstrated excellent levels of internal consistency in the current study ($\alpha = .93$).

Procedure

Participants who are at least 18 years of age and provided their informed consent completed questionnaires regarding their sexual experiences and behavior and their current mental health functioning. Those from the online communities who were interested in participating accessed the survey through a link which required their informed consent by having participants check a box at the bottom of the first page. Their identity remained anonymous and participants were debriefed after they completed the

study. Participants who were interested had the opportunity to enter into a drawing for a chance to win an incentive (one of 5 \$10 gift cards). MSU students who signed up to participate through SONA were also asked to give their informed consent online. Their identity remained anonymous and the students who gave their informed consent then completed the questionnaires, were debriefed afterwards, and received class credit for their participation. Participants were first asked to answer questions related to their experience with paraphilic behaviors, followed by their desire to experience, depression and anxiety, and ended by answering demographic questions. The survey took approximately 15-20 minutes to complete.

Analytic Strategy

The four independent variables in the current study were paraphilic arousal, behavior, desire, and distress while the outcome variable was the DASS-21 total score. Prevalence of paraphilic arousal, behavior, desire, and distress was assessed across each of the paraphilias for the overall sample and for each subsample (e.g., college and online) by dichotomizing arousal, behavior, desire, and distress into no or at least some degree of arousal, behavior, desire, and distress, respectively. Additionally, prevalence rates of paraphilic arousal, desire, behavior, and distress across the seven paraphilias were also evaluated by sex (e.g., male and female).

An any variable was calculated for paraphilic arousal, behavior, desire, and distress variable by summing all of the 'at least some' responses to the respective dimensions across the seven paraphilias and then by dichotomizing the resulting variables as either no or any arousal, behavior, desire, and distress, respectively. Furthermore, while exploring distress related to paraphilic engagement, only participants who reported

engaging in the paraphilic behavior at least once were included in the analysis of distress related to engagement in that paraphilia. A Bonferroni adjusted alpha of $\alpha = .00625$ was used for each statistical test in a set of comparisons (e.g., across the seven paraphilias and overall) in order to protect against multiple comparisons by keeping a family wise type I error rate of $\alpha = .05$ for each comparison.

A series of four separate sets of ANOVA models were used to examine each paraphilic dimension (arousal, desire, behavior, and distress) coded as no/never = 0 and at least some as 1 with the DASS-21 total score as the outcome variable. For each dimension, eight separate ANOVA models were conducted for the any variable and for each paraphilic category in order to investigate which specific paraphilias were associated with differences in the DASS-21 scores.

Power analyses were conducted in G Power version 3.1.9.2. For the ANOVA models with an alpha level of .05 and power of .8, a total sample size of 128 participants was needed in order to detect a medium effect ($F^2 = .0625$). For the chi-square tests comparing sex and subsample with an alpha level of .05, power of .8, and 7 degrees of freedom, a total sample size of 160 participants was needed to detect a medium effect ($w = .3$). The obtained sample size of 189 participants was adequate to power all study analyses.

Chapter III: Results

Demographics

A total of 189 participants completed this study. Murray State University undergraduates ($n = 93$, 21 males and 70 females) with ages ranging from 18 to 51 ($M = 19.95$, $SD = 4.71$) participated in this study for course credit in psychology courses. Additionally, 96 individuals from a number of websites and online communities that are associated with engagement in sexual activity (57 males and 38 females) with ages ranging from 18 to 65 ($M = 32.28$, $SD = 12.61$) completed this study and had the opportunity to enter into a drawing for a chance to win a one of five \$10 gift cards. These websites included the volunteers section from Craigslist – a classified advertisements website with multiple sections for a variety of uses and populations – and the following subreddits: r/Sex, r/BDSM, r/Voyeurism, r/Fetish, r/Sadism, and r/Masochism. Unlike other subreddits such as r/Frotteurism and r/Tranvestism, these subreddits were selected because they did not require users to gain membership before posting on their forums. Thirty of these participants were recruited from the subreddits, 30 from Craigslist, and the remaining 35 accessed the survey in a manner that did not reveal which website they were referred from. A series of chi-squared tests of independence were conducted comparing the college and online subsamples across a number of demographic variables, such as sex, race, religion, relationship status, and so forth. See Table 2 for descriptive data for the overall sample and each individual subsample.

Table 2

Demographics of Overall Sample and College and Online Subsamples in Percentages

| | Sample | | | χ^2 |
|--|----------------------|---------------------|--------------------|-----------------------|
| | Overall (N = 189) | College (n = 93) | Online (n = 96) | |
| Sex (<i>n</i> = 186) ^a | | | | |
| Male | 41.9 | 23.1 | 60.0 | 24.53** |
| Female | 58.1 | 76.9 | 40.0 | |
| Gender (<i>n</i> = 186) | | | | |
| Male | 40.9 | 23.1 | 57.9 | 21.03 ^b ** |
| Female | 57.0 | 73.6 | 41.1 | |
| Non-binary | 1.6 | 3.3 | 0 | |
| Prefer not to say | .5 | 0 | 1.1 | |
| Currently in College (<i>n</i> = 186) | | | | |
| Yes | 63.4 | 100 | 28.1 | 99.61** |
| No | 36.6 | 0 | 71.6 | |
| Academic Year (<i>n</i> = 180) | | | | |
| Freshman | 36.1 | 60.4 | 11.2 | 111.21** |
| Sophomore | 13.3 | 22.0 | 4.5 | |
| Junior | 8.9 | 13.2 | 4.5 | |
| Senior | 5.6 | 4.4 | 6.7 | |
| N/A | 36.1 | 0 | 73.0 | |
| Highest Degree Attained (<i>n</i> = 186) | | | | |
| High School | 69.9 | 95.6 | 45.3 | 50.05 ^c ** |
| Associate's | 13.4 | 3.3 | 23.2 | |
| Bachelor's | 12.9 | 1.1 | 24.2 | |
| Master's | 2.7 | 0 | 5.3 | |
| Ph.D. | 1.1 | 0 | 2.1 | |
| Race (<i>n</i> = 184) | | | | |
| Caucasian | 89.1 | 90.1 | 88.2 | 0.12 ^d |
| Black | 3.3 | 3.3 | 3.2 | |
| Hispanic | 1.6 | 0 | 3.2 | |

| | | | | |
|---|------|------|------|-----------------------|
| Asian | 3.3 | 2.2 | 4.3 | |
| Other | 2.7 | 4.4 | 1.1 | |
| Religion (<i>n</i> = 185) | | | | |
| Christian | 37.3 | 62.6 | 12.8 | 46.33 ^{e***} |
| Catholic | 8.1 | 6.6 | 9.6 | |
| Jewish | 1.1 | 1.1 | 1.1 | |
| Muslim | .5 | 1.1 | 0 | |
| Atheist | 14.6 | 3.3 | 25.5 | |
| Agnostic | 13.0 | 8.8 | 17.0 | |
| No affiliation | 25.4 | 16.5 | 34.0 | |
| Sexual Orientation (<i>n</i> = 186) | | | | |
| Heterosexual | 78.5 | 87.9 | 69.5 | 7.07 ^{f*} |
| Gay | 1.6 | 3.3 | 0 | |
| Lesbian | 1.6 | 3.3 | 0 | |
| Bisexual | 17.2 | 7.7 | 26.3 | |
| Prefer not to say | 1.1 | 0 | 2.1 | |
| Currently in a Relationship (<i>n</i> = 185) | | | | |
| Yes | 63.8 | 58.9 | 68.4 | 1.43 |
| No | 36.2 | 41.1 | 31.6 | |
| Relationship Status (<i>n</i> = 186) | | | | |
| Single | 32.3 | 37.4 | 27.4 | 1.55 ^g |
| Dating casually | 6.5 | 7.7 | 5.3 | |
| Dating exclusively | 40.3 | 49.5 | 31.6 | |
| Engaged | 6.5 | 3.3 | 9.5 | |
| Married | 14.5 | 2.2 | 26.3 | |
| Diagnosed with a Paraphilic Disorder (<i>n</i> = 185) | | | | |
| Yes | 2.6 | 1.1 | 4.2 | 0.72 |
| No | 97.3 | 98.9 | 95.8 | |
| Diagnosed with a Psychological Disorder (<i>n</i> = 186) | | | | |
| Yes | 29.0 | 19.8 | 37.9 | 6.55 [*] |
| No | 71.0 | 80.2 | 62.1 | |

^aDue to missing data the number of participants that completed each demographic variable varies and is reported. ^bChi-square calculated only for differences with male and female responses due to fewer than 5 expected cell counts for non-binary and prefer not

to answer. ^cChi-square calculated for high school vs. associates degree or higher due to four cells having fewer than five expected counts across all levels of education. ^dChi-square calculated only for Caucasian vs. other races due to four cells having fewer than five expected counts across all levels of race. ^eChi-square calculated for Christian vs. an aggregate of both Atheist and no affiliation due to the high percentage of responses for these religious categories as well as fewer than 5 expected cell counts for Jewish and Muslim. ^fChi-square calculated for straight/heterosexual vs. other sexual orientations due to fewer than 5 expected cell counts for gay, lesbian, and prefer not to say. ^gChi-square calculated for individuals who reported being single vs. not single due to the high percentage of responses for these relationship categories.

* $p < .05$

* $p < .001$

Prevalence of Paraphilia Dimensions

In terms of arousal to paraphilic behaviors, 22.8% ($n = 43$) of participants reported that they have been aroused to at least one paraphilic behavior at least once in their lifetime. A chi-squared test of independence was conducted comparing sex and subsample (e.g., college and online) across the seven paraphilic categories in order to determine whether there were significant differences in arousal (see Table 3). There was a significant difference for fetishism ($\chi^2 = 12.21, p < .001$), voyeurism ($\chi^2 = 12.27, p < .001$), masochism ($\chi^2 = 11.22, p < .001$), and sadism ($\chi^2 = 18.68, p < .001$) between the subsamples, with a significantly greater number of individuals in the online subsample reporting arousal compared to those in the college subsample. Moreover, the only significant difference in arousal by sex was for voyeurism ($\chi^2 = 22.13, p < .001$), with significantly more males reporting arousal than females. Additionally, eight one-way between subjects ANOVAs were conducted to compare the effect of paraphilic arousal on the DASS-21 total score across the seven paraphilias and the any arousal category (see Table 4). No significant differences were found comparing the effect of paraphilic

arousal on the DASS-21 total score across the paraphilic categories or on the any arousal variable.

Table 3

Prevalence (%) for Arousal to Paraphilic Behaviors by Subsample and Sex

| | Sample | | | χ^2 | Sex | | χ^2 |
|---------------|------------------------------|-----------------------------|----------------------------|-----------------------------|--------------------------|-----------------------------|-----------------------------|
| | Overall (<i>N</i> = 189) | College (<i>n</i> = 93) | Online (<i>n</i> = 96) | | Male (<i>n</i> = 78) | Female (<i>n</i> = 108) | |
| Fetishism | 22.8 | 11.8 | 33.3 | 12.21** | 29.5 | 17.6 | 3.02 |
| Voyeurism | 30.2 | 14.0 | 45.8 | 21.27** | 50.0 | 16.7 | 22.13** |
| Exhibitionism | 5.3 | 2.2 | 8.3 | <i>p</i> = .10 ^a | 6.4 | 3.7 | <i>p</i> = .50 ^a |
| Frotteurism | 21.7 | 17.2 | 26.0 | 1.68 | 25.6 | 19.4 | 0.68 |
| Masochism | 34.9 | 22.6 | 46.9 | 11.22** | 29.5 | 38.9 | 1.37 |
| Sadism | 26.5 | 11.8 | 40.6 | 18.68** | 37.2 | 19.4 | 6.37 |
| Tranvestism | 25.1 | 16.1 | 33.3 | 6.39 | 30.8 | 20.4 | 2.15 |
| Any Arousal | 22.8 | 24.7 | 20.8 | 0.22 | 17.9 | 25.0 | 0.93 |

* *p* < .00625 (Bonferroni adjusted alpha)

** *p* < .001

^a Fisher's exact test was used due to expected cell counts of less than five.

Table 4

ANOVA Models Comparing the Effect of Paraphilic Arousal on the DASS-21 Total Score

| | Arousal | | No Arousal | | <i>F</i> | <i>p</i> | Partial <i>eta</i> |
|---------------|----------|---------------|------------|---------------|----------|----------|-----------------------|
| | <i>n</i> | <i>M (SD)</i> | <i>n</i> | <i>M (SD)</i> | | | |
| Fetishism | 43 | 18.9 (11.7) | 146 | 14.9 (10.5) | 4.28 | .04 | .023 |
| Voyeurism | 57 | 16.7 (8.9) | 132 | 15.4 (11.5) | 0.55 | .46 | .003 |
| Exhibitionism | 10 | 17.2 (9.8) | 179 | 15.8 (10.9) | 0.13 | .72 | .001 |
| Frotteurism | 41 | 18.6 (8.9) | 148 | 15.1 (11.2) | 3.22 | .08 | .017 |
| Masochism | 66 | 17.6 (12.1) | 123 | 14.8 (10.0) | 2.79 | .10 | .015 |
| Sadism | 50 | 17.3 (11.2) | 139 | 15.3 (10.7) | 1.27 | .26 | .007 |
| Tranvestism | 47 | 18.7 (10.1) | 140 | 15.0 (10.9) | 4.23 | .04 | .023 |
| Any Arousal | 43 | 14.1 (11.0) | 146 | 16.3 (10.8) | 1.39 | .24 | .008 |

* $p < .00625$ (Bonferroni adjusted alpha)

The majority of participants (69%; $n = 131$) reported that they had engaged in at least one paraphilic behavior at least once in their lifetime. A chi-squared test of independence was conducted comparing sex and subsample (e.g., college and online) across the seven paraphilic categories in order to determine whether there were significant differences in behavior (see Table 5). There was a significant subsample difference for fetishism ($\chi^2 = 12.21, p < .001$), voyeurism ($\chi^2 = 19.35, p < .001$), masochism ($\chi^2 = 9.27, p < .002$), sadism ($\chi^2 = 18.18, p < .001$), and for any paraphilic behavior ($\chi^2 = 28.63, p < .001$), with a significantly greater number of individuals in the online subsample indicating that they have experienced these paraphilic categories compared to those in the college subsample. Moreover, the only significant difference in self-reported behavior by sex was for voyeurism ($\chi^2 = 19.09, p < .001$), with significantly more males reporting engaging in voyeuristic behavior than females.

Eight one-way between subjects ANOVA were conducted to compare the effect of paraphilic behavior on the DASS-21 total score across the seven paraphilias and the any behavior category (see Table 6). There was a significant effect of transvestism on the DASS-21 total score ($F(1, 181) = 9.80, p < .00, \text{partial } \eta^2 = .051$), meaning that those who reported engaging in transvestic behavior indicated experiencing significantly more psychological distress compared to those who did not report engaging in transvestic behavior.

Table 5

Prevalence (%) for Paraphilic Experience (at Least One Paraphilic Behavior at Least Once) by Subsample and Sex

| | Sample | | | χ^2 | Sex | | χ^2 |
|---------------|--------------------------|-------------------------|------------------------|----------|----------------------|-------------------------|-------------|
| | Overall ($N = 189$) | College ($n = 93$) | Online ($n = 96$) | | Male ($n = 78$) | Female ($n = 108$) | |
| Fetishism | 23.3 | 11.8 | 34.4 | 12.21** | 30.8 | 17.6 | 3.71 |
| Voyeurism | 28.0 | 12.9 | 42.7 | 19.35** | 46.2 | 15.7 | 19.09** |
| Exhibitionism | 6.3 | 2.2 | 10.4 | 4.13 | 9.0 | 3.7 | $p = .21^a$ |
| Frotteurism | 21.7 | 17.3 | 26.0 | 1.68 | 25.6 | 19.4 | 0.68 |
| Masochism | 34.9 | 23.7 | 45.8 | 9.27* | 28.2 | 39.8 | 2.20 |
| Sadism | 27.5 | 12.9 | 41.7 | 18.18** | 38.5 | 19.4 | 7.30 |
| Tranvestism | 25.9 | 18.3 | 33.3 | 4.82 | 30.8 | 21.3 | 1.68 |
| Any Behavior | 69.3 | 50.5 | 87.5 | 28.63** | 75.6 | 63.9 | 2.39 |

* $p < .00625$ (Bonferroni adjusted alpha)

** $p < .001$

^a Fisher's exact test was used due to expected cell counts of less than five.

Table 6

ANOVA Models Comparing the Effect of Paraphilic Behavior on the DASS-21 Total Score

| | Behavior | | No Behavior | | <i>F</i> | p | Partial eta |
|---------------|----------|---------------|-------------|---------------|----------|------|-------------|
| | <i>n</i> | <i>M (SD)</i> | <i>n</i> | <i>M (SD)</i> | | | |
| Fetishism | 44 | 18.9 (11.5) | 145 | 14.9 (10.5) | 4.50 | .04 | .024 |
| Voyeurism | 53 | 17.7 (9.1) | 136 | 15.1 (11.3) | 2.09 | .15 | .011 |
| Exhibitionism | 12 | 19.6 (10.9) | 177 | 15.6 (10.8) | 1.16 | .28 | .006 |
| Frotteurism | 41 | 18.6 (8.9) | 148 | 15.1 (11.2) | 3.22 | .08 | .017 |
| Masochism | 66 | 17.2 (12.2) | 123 | 15.1 (10.0) | 1.57 | .21 | .009 |
| Sadism | 52 | 16.2 (10.3) | 137 | 15.7 (11.0) | 0.08 | .77 | .000 |
| Tranvestism | 49 | 19.9 (11.9) | 140 | 14.3 (10.1) | 9.80 | .00* | .051 |
| Any Behavior | 131 | 16.5 (10.6) | 58 | 14.3 (11.2) | 1.61 | .21 | .009 |

* $p < .00625$ (Bonferroni adjusted alpha)

Approximately three-fourths of the sample ($n = 141$) reported having a desire to experience at least one paraphilic category. A chi-squared test of independence was conducted comparing sex and subsample (e.g., college and online) across the seven paraphilic categories in order to determine whether there were significant differences in the desire to experience a paraphilic behavior (see Table 7). There was a significant difference for fetishism ($\chi^2 = 7.94, p < .005$), voyeurism ($\chi^2 = 52.58, p < .001$), masochism ($\chi^2 = 13.20, p < .001$), sadism ($\chi^2 = 17.06, p < .001$), and for any paraphilic desire ($\chi^2 = 28.18, p < .001$) between the samples, with a significantly greater number of individuals in the online subsample indicating a desire to experience these paraphilic categories compared to those in the college subsample. Furthermore, the only significant difference in the desire to experience a paraphilic behavior by sex was for voyeurism ($\chi^2 = 15.71, p < .001$), with significantly more males reporting an interest in engaging in voyeuristic

behavior than females.

Eight one-way between subjects ANOVAs were conducted to compare the effect of paraphilic desire on the DASS-21 total score across the seven paraphilias and the any desire category (see Table 8). Although there were no significant differences of paraphilic desire on the DASS-21 total score across the paraphilic behaviors or the any desire variable, the results show that many of the paraphilic categories, such as fetishism and exhibitionism, were approaching significance, with desire being associated with greater distress compared to no desire.

Table 7

Prevalence (%) for Desire to Experience Paraphilic Behaviors by Subsample and Sex

| | Sample | | | χ^2 | Sex | | χ^2 |
|---------------|------------------------------|-----------------------------|----------------------------|----------|--------------------------|-----------------------------|----------|
| | Overall (<i>N</i> = 189) | College (<i>n</i> = 93) | Online (<i>n</i> = 96) | | Male (<i>n</i> = 78) | Female (<i>n</i> = 108) | |
| Fetishism | 27.0 | 17.2 | 36.5 | 7.94* | 30.8 | 24.1 | 0.72 |
| Voyeurism | 45.5 | 18.3 | 71.9 | 52.58** | 62.8 | 32.4 | 15.71** |
| Exhibitionism | 15.9 | 11.8 | 19.8 | 1.69 | 15.4 | 15.7 | 0.02 |
| Frotteurism | 22.8 | 17.2 | 28.1 | 2.61 | 29.5 | 18.5 | 2.48 |
| Masochism | 42.9 | 29.0 | 56.2 | 13.20** | 38.5 | 46.3 | 0.84 |
| Sadism | 34.4 | 19.4 | 49.0 | 17.06** | 43.6 | 28.7 | 3.78 |
| Tranvestism | 30.7 | 22.6 | 38.5 | 5.51 | 30.8 | 30.6 | < 0.01 |
| Any Desire | 74.6 | 57.0 | 91.7 | 28.18** | 76.9 | 72.2 | 0.31 |

* $p < .00625$ (Bonferroni adjusted alpha)

** $p < .001$

Table 8

ANOVA Models Comparing the Effect of Paraphilic Desire on the DASS-21 Total Score

| | Desire | | No Desire | | <i>F</i> | p | Partial eta |
|---------------|----------|---------------|-----------|---------------|----------|-----|----------------|
| | <i>n</i> | <i>M (SD)</i> | <i>n</i> | <i>M (SD)</i> | | | |
| Fetishism | 51 | 18.9 (12.4) | 138 | 14.7 (10.0) | 5.50 | .02 | .030 |
| Voyeurism | 86 | 16.3 (9.1) | 103 | 15.5 (12.1) | 0.25 | .62 | .001 |
| Exhibitionism | 30 | 19.5 (9.1) | 159 | 15.2 (11.0) | 3.79 | .05 | .021 |
| Frotteurism | 43 | 18.9 (8.2) | 146 | 14.9 (11.3) | 4.21 | .04 | .023 |
| Masochism | 81 | 17.2 (11.6) | 108 | 14.8 (10.1) | 2.26 | .13 | .012 |
| Sadism | 65 | 16.6 (10.3) | 124 | 15.4 (11.1) | 0.55 | .46 | .003 |
| Tranvestism | 58 | 18.0 (10.1) | 131 | 14.8 (11.1) | 3.44 | .07 | .019 |
| Any Desire | 141 | 16.7 (10.3) | 48 | 13.4 (11.9) | 3.38 | .07 | .018 |

*p < .00625 (Bonferroni adjusted alpha)

Of the participants who reported engaging in at least one paraphilic behavior at least once in their lifetime, sixty-four percent of those individuals reported experiencing at least some level of distress related to their engagement in the behavior. A series of chi-squared tests of independence were conducted comparing sex and subsample (e.g., college and online) across the seven paraphilic categories in order to determine whether there were significant differences in paraphilic distress (see Table 9). There were no significant differences between the subsamples or the sexes in terms of reported distress to the paraphilic categories.

Furthermore, eight one-way between subjects ANOVAs were conducted to compare the effect of paraphilic distress on the DASS-21 total score across the seven paraphilias and the any distress category (see Table 10). The results show that some of the paraphilic categories, such as fetishism and tranvestism, as well as the any distress

variable appear to be approaching significance, with self-reported distress being more associated with psychological distress compared to no self-reported distress.

Table 9

Prevalence (%) for Distress to Paraphilic Behaviors by Subsample and Sex

| | Sample | | | | Sex | | | |
|---------------|----------|---------|---------|--------|-------------|------|--------|-------------|
| | <i>n</i> | Overall | College | Online | χ^{2a} | Male | Female | χ^{2a} |
| Fetishism | 44 | 40.9 | 54.5 | 36.4 | $p = .314$ | 33.3 | 52.6 | $p = .230$ |
| Voyeurism | 53 | 45.3 | 75.0 | 36.6 | $p = .024$ | 44.4 | 47.1 | $p = 1.00$ |
| Exhibitionism | 12 | 33.3 | 50.0 | 30.0 | $p = 1.00$ | 42.9 | 0.00 | $p = .236$ |
| Frotteurism | 41 | 39.0 | 50.0 | 32.0 | $p = .330$ | 40.0 | 38.1 | $p = 1.00$ |
| Masochism | 66 | 30.3 | 36.4 | 27.3 | $p = .571$ | 31.8 | 30.2 | $p = 1.00$ |
| Sadism | 52 | 36.5 | 16.7 | 42.5 | $p = .172$ | 40.0 | 28.6 | $p = .553$ |
| Tranvestism | 49 | 26.5 | 35.3 | 21.9 | $p = .331$ | 37.5 | 17.4 | $p = .193$ |
| Any Distress | 130 | 64.1 | 76.6 | 57.8 | $p = .037$ | 67.8 | 61.8 | $p = .577$ |

* $p < .00625$ (Bonferroni adjusted alpha)

^aFisher's exact test was used due to expected cell counts of less than five in one or more cells in the comparisons.

Table 10

ANOVA Models Comparing the Effect of Paraphilic Distress on the DASS-21 Total Score

| | Distress | No Distress | | | | |
|---------------|---------------|---------------|----------|-----------|----------|-------------|
| | <i>M (SD)</i> | <i>M (SD)</i> | <i>F</i> | <i>df</i> | <i>p</i> | Partial eta |
| Fetishism | 22.5 (13.8) | 16.5 (9.2) | 2.856 | (1,40) | .099 | .067 |
| Voyeurism | 18.3 (10.2) | 17.2 (8.2) | 0.191 | (1,47) | .664 | .004 |
| Exhibitionism | 20.0 (16.7) | 19.5 (8.9) | 0.004 | (1,7) | .954 | .001 |
| Frotteurism | 21.2 (11.2) | 17.1 (7.0) | 1.867 | (1,36) | .180 | .049 |
| Masochism | 17.4 (9.0) | 17.0 (13.4) | 0.012 | (1,64) | .913 | .000 |
| Sadism | 18.3 (7.1) | 15.0 (11.7) | 1.162 | (1,47) | .287 | .024 |
| Tranvestism | 15.6 (7.3) | 21.6 (12.9) | 2.450 | (1,46) | .124 | .051 |
| Any Distress | 18.2 (10.5) | 13.7 (10.3) | 5.172 | (1,122) | .025 | .041 |

* $p < .00625$ (Bonferroni adjusted alpha)

Chapter IV: Discussion

The purpose of the current study was to examine the prevalence rates of paraphilic arousal, behavior, desire, and distress and to investigate the link between paraphilic engagement and psychological distress using a college and online sample. The prevalence rates across the four paraphilic dimensions varied. Nearly one-fourth of the overall sample reported some degree of arousal to at least one paraphilic category, with masochism (34%), voyeurism (30.2%), and sadism (26.5%) among the most common behaviors. Moreover, almost 70% of the overall sample reported engaging in at least one paraphilic behavior at least once in their lifetime, with the most common being masochism (34.9%), voyeurism (28.0%), sadism (27.5%), and transvestism (25%) while approximately three-fourths of the overall sample indicated having a desire to experience at least one paraphilic behavior with voyeurism (45.5%), masochism (42.9%), sadism (34.4%), and transvestism (30.7%) as the most prevalent behaviors. Lastly, although the vast majority of the sample reported a desire to experience at least one paraphilic behavior, 64% of the participants who have engaged in at least one paraphilic category reported experiencing distress, with the most common being voyeurism (45.3%), fetishism (40.9%), frotteurism (39.0%), and sadism (36.5%). There were no significant differences, however, between the subsamples and the sexes in regards to distress to paraphilic behaviors.

Although Joyal and Carpentier (2016) also found that voyeurism was the most commonly desired paraphilic behavior in their study, they found that fetishism, exhibitionism, and frotteurism were the next most commonly desired paraphilic

behaviors, suggesting that the pattern of results found in the current study differs from previous research. It is possible that the current study found more desire to experience masochism and sadism than what was found by Joyal and Carpentier (2016) due to the fact that some of the members from the online subsample were recruited from online forums dedicated to the BDSM communities and engagement. Moreover, cultural factors between the United States and Canada may also play a role in the likelihood of engaging in particular paraphilic behaviors; however, further research is needed in order to better understand how culture may have influenced these differences. Additionally, because this study recruited participants from a number of websites that were related to sexual engagement and untraditional sexual behaviors, recruitment differences might be able to explain why the desire to experience transvestism was much higher in the current study compared (30.7%) to the study by Joyal and Carpentier (6.3%; 2016).

Exploring Subsample and Sex Differences

Significantly more participants from the online subsample relative to the college subsample reported some degree of arousal, experience, and desire to experience fetishism, voyeurism, masochism, and sadism. This result may have been expected due to the fact that participants from the online subsample were recruited from websites that center on these paraphilias. In order to better understand the reasons for these differences, however, it is crucial to point out that the college and online subsamples differed on nearly every demographic variable, such as sex, gender, currently in college, academic year, highest degree attained, religion, sexual orientation, and being diagnosed with a psychological disorder.

The online sample relative to the college sample had significantly more

participants with non-heterosexual orientations, with bisexuality as the second most common sexual orientation. This finding appears to be particularly important when understanding the differences between the college and online subsamples because previous research has also shown that those who identified as bisexual rather than heterosexual, gay, or lesbian were more likely to have reported engaging in BDSM in the past year (Richters et al., 2008). Therefore, it may be the case that individuals with non-heterosexual orientations, especially bisexuality, are more likely to participate in untraditional sexual behaviors.

Moreover, significantly more participants from the online subsample relative to the college subsample identified themselves as atheist or as having no religious affiliation as opposed to Christian. These results are in line with previous research that has described how some religions consider unconventional sexual behaviors, such as anal or oral sex, to be taboo or a sin (Ashdown, Hackathorn, & Clark, 2011) which may ultimately deter these individuals from participating in even more deviant sexual behaviors, such as the paraphilias.

Lastly, although relationship status did not significantly differ between the college and online subsamples, 26.3% of the participants from the online subsample reported being married compared to only 2.2% of the participants from the college subsample. Even though it is uncertain as to how relationship status might influence the likelihood of engaging in paraphilic behaviors, it is plausible that those who have been in committed relationships for quite some time may have learned how to more effectively communicate their sexual needs and desires leading them to be more open to sexual exploration than those who are in shorter, more temporary relationships that lack this quality of

communication (Litzinger & Gordon, 2005).

Similarly, and perhaps more surprisingly, the only significant differences that were discovered between the sexes were that a greater number of males than females reported at least some level of arousal, behavior, and desire to experience voyeurism. Due to the way paraphilic behaviors and paraphilic disorders have been shown to be more common in men than women according to the prevalence rates listed in the DSM-5, it is astonishing that there were no other significant differences between the sexes across the paraphilic dimensions in the current study (American Psychiatric Association, 2013). This may be due to the fact that these seemingly “unconventional” sexual behaviors are becoming more normalized and accepted as more people learn about and engage in them, therefore narrowing the gap between men and women. Another explanation for this result is that much of the research that has been conducted on paraphilic behaviors and engagement has used samples that have been overrepresented by men (Ahlers et al., 2011; Briere & Runtz, 1989; McElroy et al., 1999). Therefore it may be the case that sample characteristics are able to influence our perception of these prevalence rates as a function of what features are made salient.

It is notable that arousal, behavior, and desire to experience voyeurism in particular were the only significant differences found between men and women. Although the current study as well as previous research has shown that voyeurism tends to be one of the most commonly occurring and desired paraphilic behaviors (Joyal & Carpentier, 2016; Makanjuola et al., 2008; Raymond et al., 1999), it remains unclear as to why this difference becomes pronounced in men. One study examined the frequency of pornography use in high school seniors and found that boys were more likely than girls to

have viewed pornography monthly, weekly, and daily (Svedin, Åkerman, & Priebe, 2011). It was also found that over 25% of girls had never viewed pornography compared to only 2.2% of boys in their sample (Svedin et al., 2011). Although voyeurism has been conceptualized and defined as sexual arousal to viewing unsuspecting others undress or engage in sexual acts, one may argue that there are parallels between voyeuristic behavior and viewing pornography such that the viewer is watching others engage in sexual behaviors through a different medium. Therefore, sex differences in the frequency of pornography use might be able to hint at or at least partially explain why males were more likely than females to report sexual arousal, behavior, and the desire to experience voyeurism in the current study. However, further research is needed to strengthen and better understand this relationship.

Should Paraphilic Disorders Remain in the DSM-5?

The findings on self-reported paraphilic distress represent an anomaly. Although the majority of the sample was found to have engaged in at least one paraphilic behavior at least once in their lifetime, over half of those indicating paraphilic engagement reported experiencing some level of distress. It is uncertain as to why this might be the case. It is possible that some of these individuals have experienced feelings of distress due to the fact the many of these sexual behaviors have been identified as being deviant, unacceptable, and stigmatized by American society therefore resulting in strong negative reactions due to violating cultural norms (Moser & Kleinplatz, 2006). On the contrary, it is also probable that feelings of distress might have been confounded by the very nature of some of these paraphilic behaviors. For example, due to the defining features of masochism and sadism, one might be able to argue that experiencing minor feelings of

physical and/or psychological suffering is what brings sexual gratification to the individual, thereby resulting in its appeal, desire, and engagement. Moreover, it is also interesting to note that there were no significant differences between the subsamples or sexes in terms of paraphilic distress. These findings are surprising because one might expect to see higher levels of distress in groups that do not tend to be associated with or are as outward about engaging in unconventional sexual behaviors compared to groups that are. Additionally, neither paraphilic arousal, behavior, desire, nor distress were shown to significantly affect the overall distress score, which challenges previous research that has been able to link paraphilic engagement and negative mental health outcomes (Cohen et al., 2002; Kafka & Hennen, 2002).

Engagement in tranvestism was the only paraphilic dimension that predicted DASS-21 scores. In other words, participants who reported dressing as members of the opposite sex for sexual gratification indicated experiencing greater psychological distress compared to participants who have never dressed as members of the opposite sex for the purpose of experiencing sexual gratification. Before providing a possible explanation for this result, it is important to note that tranvestism differs from a transgender identity in that individuals who are transgender do not identify with the gender they were assigned with at birth and therefore “pass” or express themselves as members of the opposite sex (Roen, 2002). Transgender individuals do not dress as members of the opposite sex for sexual arousal or to experience sexual gratification which distinguishes these behaviors from tranvestism. Nevertheless, the current finding is likely to be the result of strong negative attitudes and discrimination against individuals who are gender nonconforming or whose gender expression does not fall neatly within the gender binary (Herek, 2009).

Previous research has shown that individuals who violate social norms for gender typical and appropriate behavior, such as dressing as members of the opposite sex or neglecting traditional masculine or feminine roles, tend to experience greater psychological distress because of stigma from both heterosexual and homosexual communities (Skidmore, Linsenmeier, & Bailey, 2006). Consequently, it is probable that participants who reported engaging in transvestic behavior in the current study experienced greater distress than those who have never engaged in tranvestism due to the negative consequences that are coupled with atypical gender expression and behaviors.

Collectively, the results from the current study may be used to inform the contention posed in the introduction by supporting the side that argues for the exclusion of paraphilic disorders from the DSM-5. These results coupled with the finding that the vast majority of participants have engaged in and/or wish to engage in at least one paraphilic behavior calls into question the atypicality and level of impairment associated with these sexual acts and should urge psychologists to reconsider their placement in the DSM-5 or to refine their conceptualization of what makes abnormal sexual behaviors abnormal.

Limitations

Although the current study was able to document the prevalence of paraphilic arousal, behavior, desire, and distress as well as elucidate the relationship (or lack thereof) between paraphilic engagement and psychological distress using a college and online sample, this study is not without limitations. One weakness is that characteristics of the sample make it difficult to generalize the results to other settings and groups. For example, one might expect to see differences in paraphilic arousal, behavior, desire, and

distress in college samples that are not as strongly affiliated with Christianity or in individuals who are not currently married or in a romantic relationship. Furthermore, because many of the participants from the online sample were recruited from websites associated with BDSM, it is possible that the prevalence rates for masochism and sadism have been inflated compared to the other paraphilias therefore skewing the frequency of these behaviors relative to each other.

The current study also did not control for social desirability bias nor did it employ means to identify whether participants were paying attention or were careful in their responding. Social desirability bias may have been especially problematic in this study in particular because of the way the questionnaire required participants to disclose their personal experience and interest in engaging in highly taboo sexual behaviors as well as sexual behaviors that violate a person's consent, such as frotteurism (Meston, Heiman, Trapnell, & Paulhus, 1998; Catania, Gibson, Chitwood, & Coates, 1990). Due to the sensitive nature of the questionnaire as well as stigmatizing attitudes towards paraphilic behaviors, it is likely that some participants responded to the items in dishonest manner or in a way that reflects cultural norms. Additionally, this study did not utilize other measures beyond self-reports. Although self-report measures expedite the data collection process, they can be considered as somewhat of a disadvantage in the present study because asking participants to recall events that may have happened years ago can lead to inaccurate reports. Therefore, researchers should consider other types of measures to use in adjunct of these self-reports, such as structured self-monitoring sheets, daily journal entries, or behavioral and physiological measures such as penile plethysmograph in order to track and corroborate the results (Abel, Blanchard, & Barlow, 1981).

Lastly, the current study relied on dichotomizing the paraphilic dimensions between no arousal, behavior, desire, and distress and any or at least some degree of arousal, behavior, desire, and distress rather than choosing a more informative way to represent these endorsements in order to remain consistent with the scoring procedures utilized by Joyal and Carpentier (2016). This becomes problematic because researchers are losing important information when deciding to group together different responses that indicate varying levels of engagement or intensity into one label. Researchers who are interested in using the questionnaire provided by Joyal and Carpentier (2016) should consider this as well as measure development by reevaluating the way in which this measure is scored as a future direction. For example, one recommendation would be to consider the use of sum scores across the paraphilic categories as a way to better understand self-reported levels of paraphilic arousal, behavior, desire, and distress.

Future Directions

In order to build upon the findings from the current study, it would be worthwhile for researchers to examine the prevalence of paraphilic arousal, behavior, desire, and distress using more diverse samples from the general population. For example, recruiting participants from more ethnically diverse backgrounds, different class years, and from a number of geographic locations in the United States would be able to add to the generalizability of the results. Similarly, because the college and online subsamples differed on the majority of the demographic variables, future research is needed to isolate which variables or combination of variables might be responsible for these differences.

In addition to reevaluating the purpose and use of dichotomization for the paraphilic engagement and desire questionnaire (Joyal and Carpentier, 2016), it is also

recommended that researchers who wish to use this measure consider expanding the psychometric validation of the instrument by conducting a factor analysis and exploring validity with other established measures of paraphilias. Because the measure is fairly new, its psychometric properties have not been sufficiently tested nor established, further emphasizing the need for validation. Moreover, researchers should also find the means to recruit individuals who engage in the paraphilic categories that were underrepresented in the current study, such as exhibitionism, in order to better understand their degree of engagement and psychological functioning. It is also recommended that psychologists who are interested in researching this area of study employ measures that are able to account for social desirability bias and test taking attitudes in order to strengthen the validity and accuracy of their findings.

Although the current study found that engagement in tranvestism was the only paraphilia and paraphilic dimension that was able to predict DASS-21 scores, it remains unclear whether the behavior itself or the stigma and discrimination geared towards cross-dressing and gender nonconformity is responsible for this relationship. In order to explore the factors that contribute to psychological distress as a result of gender atypical behavior and cross dressing, it is recommended that researchers consider examining the social status and psychological well-being of those who violate traditional gender norms in cultures that are more accepting of these behaviors, such as the two-spirit people or the berdache identity in northern Native American tribes (Jacobs, 1997).

Another future direction for researchers is to consider examining the relationship between paraphilic engagement and psychological distress from a different perspective. More specifically, it would be worthwhile to investigate whether psychological distress is

able to predict paraphilic engagement and related behaviors. Studying these variables in this direction may significantly add to our understanding of their relationship since the majority of past research has investigated these hypotheses in a single direction, which is whether paraphilic engagement is associated with or leads to negative mental health outcomes. Lastly, the current study relied on volunteer and convenience samples, meaning that the results may not accurately reflect rates in the general population. It is important to understand how these results might differ outside of volunteer and convenience samples, therefore, a future direction would be to use random sampling in order to strengthen one's methodology and better understand these findings in the context of the general population.

Conclusion

From the present study, it appears as though the majority of participants have engaged in and/or expressed a desire to experience at least one paraphilic behavior. Additionally, aside from tranvestism, there were no significant effects of either one of the four paraphilic dimensions on the DASS-21 total score, suggesting that most paraphilic involvement may not be linked to negative mental health outcomes in the current study. These findings are imperative because they clarify the relationship between paraphilic engagement and psychological well-being and also inform and refine our understanding of the prevalence rates within samples from the general population. In conclusion, there may be some truth to the first clause of the current study's title, which should warrant researchers to rethink their conceptualization of paraphilic disorders along with their placement in the DSM-5. By updating the way researchers and non-researchers alike think about paraphilic engagement and prevalence in the general population, it may have

the potential to reduce some of the stigma and negative attitudes about these seemingly “abnormal” sexual behaviors.

Appendix I: Paraphilic Desire and Engagement (adapted from Joyal & Carpentier, 2016).

Please answer the following questions by marking the circle that is most appropriate.

1. Have you ever been sexually aroused by an inanimate non-sexual object? Please note that a vibrator does not enter into this category.

Yes No

How often?

- I have never done it
- I did it once
- I did it sometimes, 2–10 lifetime
- I did it often, more than 10 times lifetime

How distressed or bothered are you by engaging in sexual acts with an inanimate non-sexual object?

- Not applicable
- Not at all distressed
- Somewhat distressed
- Moderately distressed
- Highly distressed

Would you like to engage in sexual acts with an inanimate non-sexual object?

- Not at all
- I have thought about it
- Maybe
- Absolutely

2. Have you ever been sexually aroused by wearing clothing from the opposite sex?

Yes No

How often?

- I have never done it
- I did it once
- I did it sometimes, 2–10 lifetime
- I did it often, more than 10 times lifetime

How distressed or bothered are you by wearing clothing from the opposite sex for sexual gratification?

- Not applicable
- Not at all distressed
- Somewhat distressed
- Moderately distressed
- Highly distressed

Would you like to like to wear clothing from the opposite sex for sexual gratification?

- Not at all
- I have thought about it
- Maybe
- Absolutely

3. Have you ever been sexually aroused while watching a stranger, who was unaware of your presence, while they were nude, were undressing, or were having sexual relations?

- Yes No

How often?

- I have never done it
- I did it once
- I did it sometimes, 2–10 lifetime
- I did it often, more than 10 times lifetime

How distressed or bothered are you by watching a stranger who is unaware of your presence while they are nude, undressing, or are having sexual relations?

- Not applicable
- Not at all distressed
- Somewhat distressed
- Moderately distressed
- Highly distressed

Would you like to like to watch a stranger who is unaware of your presence while they are nude, undressing, or are having sexual relations?

- Not at all
 - I have thought about it
 - Maybe
 - Absolutely
-

4. Have you ever been sexually aroused by showing your genitals to a stranger who was not expecting this?

- Yes No

How often?

- I have never done it
- I did it once
- I did it sometimes, 2–10 lifetime
- I did it often, more than 10 times lifetime

How distressed or bothered are you by showing your genitals to a stranger who is not expecting it?

- Not applicable
- Not at all distressed
- Somewhat distressed
- Moderately distressed
- Highly distressed

Would you like to show your genitals to a stranger who is not expecting it?

- Not at all
 - I have thought about it
 - Maybe
 - Absolutely
-

5. Have you ever been sexually aroused by touching or by rubbing yourself against a stranger?

- Yes No

How often?

- I have never done it
- I did it once

- I did it sometimes, 2–10 lifetime
- I did it often, more than 10 times lifetime

How distressed or bothered are you by touching or rubbing yourself against a stranger?

- Not applicable
- Not at all distressed
- Somewhat distressed
- Moderately distressed
- Highly distressed

Would you like to touch or rub yourself against a stranger?

- Not at all
 - I have thought about it
 - Maybe
 - Absolutely
-

6. Have you ever been sexually aroused while suffering, being dominated, or being humiliated?

- Yes
- No

How often?

- I have never done it
- I did it once
- I did it sometimes, 2–10 lifetime
- I did it often, more than 10 times lifetime

How distressed or bothered are you by being made to suffer, be dominated, or be humiliated?

- Not applicable
- Not at all distressed
- Somewhat distressed
- Moderately distressed
- Highly distressed

Would you like to made to suffer, be dominated, or be humiliated?

- Not at all
- I have thought about it
- Maybe
- Absolutely

7. Have you ever been sexually aroused by making someone suffer, or by dominating or psychologically or physically humiliating another person?

Yes No

How often?

- I have never done it
- I did it once
- I did it sometimes, 2–10 lifetime
- I did it often, more than 10 times lifetime

How distressed or bothered are you by dominating, humiliating, or making someone suffer either psychologically or physically?

- Not applicable
- Not at all distressed
- Somewhat distressed
- Moderately distressed
- Highly distressed

Would you like to dominate, humiliate, or make someone suffer either psychologically or physically?

- Not at all
 - I have thought about it
 - Maybe
 - Absolutely
-

Appendix II: Demographic Questionnaire

1. What is your age? _____
2. Are you currently in college? ___Yes ___No
3. If you marked 'Yes' please indicate your academic year:
 - Freshman
 - Sophomore
 - Junior
 - Senior
 - N/A
4. What is the highest degree of education you have completed?
 - High School
 - Associate's
 - Bachelor's
 - Master's
 - Ph.D.
5. What is your biological sex? ___Male ___Female
6. What is your gender?
 - Male
 - Female
 - Non-binary/Third gender
 - Prefer not to say
7. What is your race?
 - Caucasian
 - Black
 - Hispanic or Latino
 - Native American or American Indian
 - Asian or Pacific Islander

Other

8. What is your religious affiliation?

Christian
Catholic
Jewish
Muslim
Atheist
Agnostic
No affiliation

9. What is your sexual orientation?

Straight/heterosexual
Gay
Lesbian
Bisexual
Prefer not to say

10. Are you currently in a relationship with a significant other? ___Yes ___No

11. Which of the following best describes your current relationship status?

Single
Dating Casually
Dating Exclusively
Engaged
Married

12. How satisfied are you with your sex life?

Not at all satisfied
Somewhat satisfied
Satisfied
Very Satisfied

13. How much do you agree with the following statement: On the whole, I am satisfied with myself.

Strongly Agree

Agree
Disagree Strongly
Disagree

14. Have you ever been diagnosed with paraphilic disorder or as having a paraphilia?

Yes No

15. If yes, please indicate which paraphilic disorder.

Not applicable
Exhibitionism
Voyeurism
Masochism
Sadism
Frotteurism
Transvestism
Fetishism
Other

16. Have you ever been diagnosed with a psychological disorder?

Yes No

17. If yes, please provide your diagnosis or diagnoses below.

Appendix IV: IRB Approval Letter



Institutional Review Board

328 Wells Hall
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TO: Michael Bordieri
Psychology

FROM: Institutional Review Board
Jonathan Baskin, IRB Coordinator

DATE: 1/23/2017

RE: Human Subjects Protocol LD. – IRB # 17-088

The IRB subcommittee has completed its review of your student's Level 1 protocol entitled *Sexual Behaviors and Well Being*. After review and consideration, the IRB has determined that the research, as described in the protocol form, will be conducted in compliance with Murray State University guidelines for the protection of human participants.

The forms and materials that have been approved for use in this research study are attached to the email containing this letter. These are the forms and materials that must be presented to the subjects. Use of any process or forms other than those approved by the IRB will be considered misconduct in research as stated in the MSU IRB Procedures and Guidelines section 20.3.

This Level 1 approval is valid until 1/22/2018.

If data collection and analysis extends beyond this time period, the research project must be reviewed as a continuation project by the IRB prior to the end of the approval period, 1/22/2018. You must reapply for IRB approval by submitting a Project Update and Closure form (available at murraystate.edu/irb). You must allow ample time for IRB processing and decision prior to your expiration date, or your research must stop until such time that IRB approval is received. If the research project is completed by the end of the approval period, then a Project Update and Closure form must be submitted for IRB review so that your protocol may be closed. It is your responsibility to submit the appropriate paperwork in a timely manner.

The protocol is approved. You may begin data collection now.

Opportunity
afforded

murraystate.edu

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