Latent Structure of Paraphilic Disorders in Male and Female College-aged Samples

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ABSTRACT

Latent Structure of Paraphilic Disorders in Male and Female College-aged Samples

A thesis presented to the Department of Psychology

Graduate School of Arts and Sciences
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The definition of hypersexuality and its underlying structure are controversial and currently lack consistency and clarity. Recent research suggests that the latent structure for the construct of overall hypersexuality is distributed as a dimensional rather than as a non-arbitrary category or taxon (Graham, Harris, Walters, & Knight, 2015). In contrast to hypersexuality, which captures extreme levels of normophilic sexual behavior, the paraphilias are defined by the presence of “abnormal” sexual behavior and fantasies. For assessment, definition, and intervention issues, it is essential to determine the latent structure of the paraphilias. Using data collected from the administration of the Multidimensional Inventory of Development, Sex, and Aggression (MIDSA, 2011) to large samples of college-aged males (n = 541) and females (n = 367), the present study examined the latent structure of specific paraphilias and found evidence to support dimensionality in males and categorical structure in females. The implications of these results for theory and assessment are discussed.
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Introduction

Although there is evidence to suggest that sexual deviance is linked to violent sexual behavior, deviant sexual fantasies can also commonly be found among non-offenders (Williams, Copper, Howell, Yuille, & Paulhus, 2009). Sexual deviance is often extended to include sexual assault, but at its core, sexual deviance focuses on divergence from socially prescribed normophilic sexual behavior, whether that be through discrepancies in frequency in the form of hypersexuality or abnormality of the arousal source as in paraphilic disorders (Feierman & Feierman, 2000; Laws, Hudson, & Ward, 2003).

Categorical versus Dimensional Conceptualizations

Hypersexuality consists of a series of traits that are characterized by compulsive and intense sexual behaviors and fantasies, as well as disinhibited sexual behavior (American Psychiatric Association [APA], 2013). While hypersexuality is typically used as a clinical descriptor for sexual impulsivity disorders, it can also refer to specific paraphilias or paraphilia-related disorders (Kafka, 1997, 2010). Although the recent DSM-5 proposal for hypersexuality disorder acknowledged the likely dimensionality of the construct (Kafka, 2010), nonetheless a categorical classification was proffered (APA, 2013). Taxometric analyses have consistently indicated that both general hypersexuality and sexual compulsivity are distributed as dimensions (Graham, Walters, Harris, & Knight, 2015; Walters, Knight, & Långström, 2011). In contrast to hypersexuality, paraphilias are typically both described and conceptualized as categorical in
nature (Kafka, 1997, 2010), because of the “abnormality” attributed to them. Unfortunately, this common assumption has never been tested empirically.

Although the term paraphilia is associated with any type of non-normophilic sexual attraction or preference for either anomalous activities (e.g., Voyeurism, Exhibitionism, Frotteurism, and Sadism) or preferences (e.g., Pedophilia, Fetishism, and Transvestism), clinical paraphilias (or paraphilic disorders) are classified as repetitive sexual fantasies and actions that persist for a period of at least six months and are accompanied by social impairment and distress. The current list of paraphilic disorders include those involving non-consenting victims (i.e. Voyeurism, Exhibitionism, Frotteurism, and Sexual Sadism), those not involving non-consenting victims (i.e. Sexual Masochism, Fetishism, and Transvestism), and Pedophilia (APA, 2013).

Although similar in name, paraphilia-related disorders (PRDs) are separate from the aforementioned paraphilic disorders and are defined as frequent and intense sexual fantasies, urges, and behaviors that persist for a period of at least six months (Kafka, 2001). Paraphilia-related sexual activities are centered on socially normative ideals of sexual arousal and behavior, rather than being an addiction or compulsion to unconventional sexual behavior (Kafka & Hennen, 2003). Additionally, individuals with paraphilia-related disorders tend to report lower incidences of prior sexual abuse and complete higher levels of education than individuals diagnosed with paraphilias (Kafka & Hennen, 2002). However, unlike the paraphilias in which the patient is unlikely to recognize his or her behavior as wrong or harmful, PRDs are more likely to cause the individual significant distress and impairment, particularly in the hindrance of their capacity for reciprocal affection (Kafka & Prentky, 1994). Furthermore, PRDs are more closely associated with sexual impulsivity disorders, and males with a PRD more likely to seek
professional help because of behaviors like compulsive masturbation and pornography
dependence that impair their everyday lives (Kafka & Hennen, 1999).

**Gender Differences**

Despite challenges to the operational definition of paraphilic disorders (O’Donohue, Regev, & Hagstrom, 2000), previous research has shown that paraphilic disorders are primarily found in males, with estimated prevalence rates ranging from 8.3% in general populations to 34% in a population of male criminal sex offenders, with just 2.6% of sex offenders experiencing two or more paraphilias (Walters et al., 2011). This small prevalence rate in sex offenders suggests that they may be a rather heterogeneous group (Kafka, 2003). Such a notion has been supported by typological systems that have been proposed and validated for both child molesters (Knight & King, 2012) and rapists (Knight, 2010). Moreover, demographically, sexual offenders often comprise individuals who cross socioeconomic, educational, racial, and religious lines (Saleh & Guidry, 2003). This wide variety in motivations, offense behavior, and demographic backgrounds make them difficult to categorize within the criminal justice system.

Estimating the prevalence of paraphilic disorders in non-criminal populations can be a tricky endeavor because of definitional changes and inconsistencies in diagnostic criteria throughout the development of the DSMs (McManus, Hargreaves, Rainbow, & Alison, 2013). Baur et al. (2015) found in a recent study that within a non-criminal sample, 18% of the total population self-reported any type of paraphilic behavior, with 25% of men reporting these behaviors compared to only 14% of women. Furthermore, studying paraphilic behaviors in females is challenging because some sources estimate that for every 20 males that qualify for a diagnosis of a paraphilic disorder, only one woman qualifies (Kafka, 2007; Walters et al., 2011). This disparity is maintained, even as individuals grow older (Levitsky & Owens, 1999). It should
be noted, however, that although there is a large gender disparity in paraphilic sexual interests, with men expressing significantly more paraphilic sexual interests, women tend to engage in masochism at higher rates than men (Chivers, Bouchard, & Timmers, 2015).

This notable gender asymmetry in paraphilic sexual interests may be suggestive of differences in the way sexual attraction is organized in men and women (Chivers et al., 2015), particularly in the differences in specificity of sexual response between genders (Chivers, Seto, Lalumiere, & Grimbos, 2010). Men’s sexual responses tend to rely more heavily on category-specific gender cues, regardless of sexual orientation, while women have a greater sexual response to visual depictions of couples of all genders engaging in sexual intercourse (Chivers, Rieger, Latty, & Bailey, 2004). These gender differences are maintained throughout various phases of the menstrual cycle (Bossio, Suschinsky, Puts, & Chivers, 2014) as well as with narrative sexual stimuli (Chivers & Timmers, 2012). Part of this asymmetry may also arise from large differences in the ability to recognize when sexual arousal occurs between genders. A meta-analysis of gendered sexual concordance found that men had greater concordance between self-reported and physiological manifestations of sexual arousal, while women were generally less likely to recognize when they were experiencing sexual arousal (Chivers et al., 2010).

Another reason why paraphilic disorders may be diagnosed so infrequently in women may stem from extreme stigma of oversexualization in women when compared to men, with outdated terms such as ‘psychopathic hypersexuals’ previously used to identify women who had a problem with ‘sexual excess’ (Lunbeck, 1987). Hypersexual females were considered unable to bridle their sexual desires and were viewed as predators, whereas men were considered passive recipients of hypersexual women’s unwanted sexual attention (Lunbeck, 1987). Even in research that is more recent, contemporary femininity has been hallmarked by the expectation that women
should maintain a semblance of ‘respectable femininity,’ in which women must be sexually agentic without being too promiscuous (Griffin et al., 2012). These conflicting viewpoints may result in diagnostic biases in which both women were unwilling to admit to socially undesirable sexual behaviors and psychiatrists were reluctant to label women as sexually deviant.

Recent evidence has suggested, for instance, that women do not engage less frequently in sexually coercive behavior, but rather that they use different strategies and have different motivations for such engagement (e.g., Schatzel-Murphy, Harris, Knight, & Milburn, 2009). This suggests that it might be a grave oversight to assume that women do not engage in sexually deviant behaviors. Although the body of literature on sexual coercion is far vaster for men than women, recent research suggests that women may be breaking away from stereotypical expectations and may be engaging in more sexually aggressive behaviors than previously expected (Anderson, 1998). In cases of sexual coercion, gender differences are found not in the frequency or the self-reported coercive behaviors, but in the motivations behind sexually coercive behaviors. Although prior sexual abuse appears to be a predictor for both men and women, socially dominant men were more likely to engage in sexually coercive behaviors, whereas women were more driven by sexual compulsivity (Schatzel-Murphy et al., 2009). Therefore, in cases where motivation may differ by gender, it is important to understand these differences within sexual deviant behaviors to decrease diagnostic bias and to allow appropriate interventions for both men and women.

Diagnostic underestimation may also stem from misunderstandings about the fundamental structure of hypersexuality—and in turn, paraphilias—in both men and women (Graham et al., 2015). During the deliberations leading to the publication of the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5; American Psychiatric*
Association, 2013), the Paraphilias sub-workgroup proposed that hypersexual disorder be added to the paraphilias. Although the APA Task Force ultimately rejected this disorder, this proposal sparked a debate about the latent structure of the construct of hypersexuality, particularly about whether hypersexuality constituted a non-arbitrary category, distinct from non-hypersexuality or whether it was simply an extreme along a continuum of socially acceptable sexual behavior (Graham et al., 2015). Despite suggestions from previous findings that hypersexuality was distributed as a dimension (Kafka, 1997, 2007), the criteria proposed for inclusion in the DSM-5 provided measurement criteria that appeared categorical (4 out of 5 “A” criteria were necessary) rather than dimensional (a score on a continuum). At this time existing research related to proper assessment and diagnoses of hypersexuality and its related disorders—including paraphilic disorders—was limited or relatively nonexistent, which may have further contributed to its ultimate rejection of the disorder from the DSM.

Using the semi-independent taxometric methods proposed by Meehl and colleagues (Meehl & Yonce, 1994, 1996), Graham et al. (2015) have found support for the hypothesis that both hypersexual behavior and sexual compulsivity are distributed as dimensions in both male and female college-aged samples. Such dimensionality in normophilic sexual behavior and fantasies might not generalize to the paraphilias, which involve abnormal behavior and fantasies. Consequently, using similar methods, we examined whether the latent structures of the specific paraphilias described in the DSM-would possess a dimensional latent structure. We examined both college-aged men and women, and hypothesized that despite differences in the frequencies of paraphilias and possible differences in arousal pattern in males and females, dimensional results would emerge for both. By properly identifying the latent structure of paraphilias as either taxonic or dimensional, clinicians may be better equipped to identify and subsequently treat
paraphilias and paraphilia-related disorders, which may allow for more thorough investigations of motivating factors for engaging in paraphilic behaviors. Regardless of these disorders’ underlying structures, proper diagnosis will allow proactive and rehabilitative treatment among the general population that is more effective.
Method

Participants

Participants included a sample of 1174 students recruited from universities in the Northeastern and Western United States via recruitment flyers and psychology department subject pools. Participants with missing data (n = 204) for any of the paraphilia-related subscales or who scored more than two standard deviations above the mean on the MIDSA (2011) Positive Image Scale (n = 62) were removed from analysis. The Positive Image Scale is used to identify participants who present themselves in an overly positive way and may have potentially provided biased responses. This resulted in a total loss of 23% of participants, leaving 908 (59.6% male) participants, with an age range of 17 to 29 (M = 19.92, SD = 3.86). Most participants identified as Caucasian (70.8%), with 9.5% identifying as Asian, 6.8% as Hispanic, 4.5% as African-American, and 8.3% as other or mixed race.

Measures

Multidimensional Inventory of Development, Sex, and Aggression. The MIDSA (MIDSA, 2011; Knight, Prentky, & Cerce, 1994) is a contingency-based inventory administered via computer that takes approximately two hours for college students to complete. Information reported by the participant includes a history of living arrangements, family and childhood experiences, criminal history, sexually aggressive behavior, etc. MIDSA scales have shown to have mostly high test-retest reliability with 86% of scales equal to or greater than .70 (Walters et al., 2011). For the purpose of this study, analyses will focus on the mean scores for each of the
Paraphilia subscales (Voyeurism, Transvestic Fetishism, Exhibitionism, Fetishism, etc.) as well as the Positive Image Scale.

**Voyeurism.** The Voyeurism Scale is a five-item scale that is used to measure participants’ tendencies towards voyeuristic behaviors and thoughts. Each item (e.g. “I think about secretly watching people having sex”) is measured on a 0 (*Never or rarely*) to 3 (*Frequently*) Likert-type scale. Participants who scored high on this scale reported engaging in voyeurism and having strong urges to do so. The Voyeurism factor scale score was derived from the mean score of these five items and used in the following analyses. In this sample, Cronbach’s alpha was .663.

**Transvestic Fetishism.** The Transvestic Fetishism Scale is a three-item scale that is used to measure participants’ tendencies towards transvestic behaviors and thoughts. Each item (e.g. “When I have had sexual thoughts, I have thought about dressing as a woman”) is measured on a 0 (*Never or rarely*) to 4 (*Frequently*) Likert-type scale. Participants who score high on this scale reported becoming aroused by wearing clothes of the other gender. The Transvestitism factor scale score was derived from the mean score of these three items and used in the following analyses. In this sample, Cronbach’s alpha was .648.

**Exhibitionism.** The Exhibitionism Scale is a five-item scale that is used to measure participants’ tendencies towards exhibitionist behaviors and thoughts. Each item (e.g. “I have had sexual thoughts about exposing myself”) is measured on a 0 (*Never or rarely*) to 4 (*Frequently*) Likert-type scale. Participants who scored high on this scale reported exposing themselves and having strong urges to do so, and may also have reported reaching climax while exposing themselves. The Exhibitionism factor scale score was derived from the mean score of these five items and used in the following analyses. In this sample, Cronbach’s alpha was .722.
**Fetishism.** The Fetishism Scale is a four-item scale that is used to measure participants’ tendencies towards fetish-related behaviors and thoughts. Each item (e.g. “I have gotten sexually excited while thinking about women’s shoes or feet”) is measured on a 4 (*Never or rarely*) to 3 (*Frequently*) Likert-type scale. Participants who scored high on this scale reported becoming aroused by nonsexual body parts, such as feet or hair, as well as aroused by a person’s smell or feel. The Fetishism factor scale score was derived from the mean score of these four items and used in the following analyses. In this sample, Cronbach’s alpha was .692.

**Positive Image Scale.** The Positive Image Scale is a nine-item scale that is used to assess participants’ attempts to portray themselves in an overly positive light to others (MIDSA, 2011). Each item is measured on a 0 (*Definitely false*) to 4 (*Definitely true*) Likert scale, with items including “I never swear” and “I have never dropped litter on the street.” Higher scores on this scale are indicative of higher levels of attempts to project a positive image of oneself. In this sample, Cronbach’s alpha was .658.

**Procedures**

All participants completed the MIDSA via either computer or paper-and-pencil, with written informed consent provided prior to beginning the inventory; they were also verbally reminded of their ability to end testing at any time. Participants were supervised by a test proctor throughout their testing and were asked to complete the inventory in a single session. At the completion of their session, participants were compensated with course credit.
Analytic Plan

To determine whether the latent structure of specific paraphilic disorders differed between male and female college-aged populations, results of the MIDSA subscales were analyzed for the total sample and separately for each gender using the following taxometric analytic methods: mean above minus below a cut (MAMBAC; Meehl & Yonce, 1994), maximum covariance (MAXCOV; Meehl & Yonce, 1996), and L-Mode (Waller & Meehl, 1998), with each method providing semi-independent evidence about latent structure and a consistency check for assessing each type of distribution.

MAMBAC examines the presence of an optimal cut score to categorize groups; difference scores that peak at a particular cut score suggest a categorical latent structure, whereas a flat distribution of difference scores would suggest a dimensional structure for paraphilic disorders (Guay & Knight, 2003; Meehl & Yonce, 1994). First, input indicators were graphed along the x-axis and output indicators in the y-axis, with participants categorized by their summed input indicator scores. Fifty equally spaced cuts were made along the input indicator continuum and used to divide participants below and above a predetermined cut. Subsequently, output indicators were calculated as the difference between the mean values above and below each cut. Visually, a peaked MAMBAC curve is suggestive of a categorical construct, whereas a rounded or U-shaped curve is indicative of dimensionality (Meehl & Yonce, 1994; Waller & Meehl, 1998).
MAXCOV was used to investigate the latent structure of the paraphilic disorders by measuring covariance among multiple subsamples along increasing values of an input variable. In this procedure the sample was divided into 25 windows with a 90% overlap along the input indicator; the sample was then placed graphically along the x-axis, and covariance between two input indicators was calculated and subsequently plotted along the y-axis. Similar to MAMBAC, a peak value of covariance in input windows with the most evenly distributed frequency of complement and taxon suggests a categorical structure, whereas a more even distribution of covariance suggests a dimensional latent structure (Meehl & Yonce, 1996).

L-Mode analysis was initiated by analyzing the input indicators with a factor analysis, which was then translated into a factor score density plot with scores from the first personal factor. The plot is a graphical representation of the distribution of cases estimated scores on a single latent factor. In this method, a unimodal plot is suggestive of dimensional latent structure, whereas a bimodal plot is suggestive of a taxon (Waller & Meehl, 1998). Based on previous research regarding latent structure of hypersexuality, it is estimated that specific paraphilic disorders will also follow a dimensional latent structure (Graham et al., 2015) for both males and females.
Results

Selection of Indicators

The capability of the paraphilia subscale scores to differentiate between the putative taxon and complement groups based on the total score was tested with a base rate of 18%, which is the reported prevalence of all paraphilic behaviors derived from recent research in non-criminal men and women (Baur et al., 2015). All of the four paraphilia scales used for all analyses met conventional criteria for indicator validity ($d > 1.25$; Meehl, 1995), which shows the ability to differentiate between the top scoring 18% of participants (putative taxon) and the lower scoring 82% (complement) with indicator validity values ($d$) ranging from 1.598 to 1.951 (see Table 1). All four items were included in the two following sets of taxometric analyses.

Pretaxometric Analyses

Prior to conducting taxometric analyses, the data must satisfy the several data requirements. First, all indicators used must be both quasi-continuous and composed of at least four ordered categories (Walters & Ruscio, 2009). Second, the interindicator correlation within the full sample should be greater than .30, whereas the mean interindicator correlations for the putative taxon and complement groups should be less than .30 for analysis results to be meaningful. Third, each indicator should allow for distinction between the putative taxon and complement groups. As displayed in Table 1, all three of these conditions were met for the current set of scales. An analysis of the shape of the distributions for each of the qualifying indicators in the total sample was suggestive of a continuum, but evidence of a positive skew for
each of these subscales could indicate the presence of a categorical structure (Meehl, 1992). As there is little agreement in the base rates of paraphilic behavior due to criterial changes and inconsistency in diagnostic measures, these distributions are supportive of further investigation (Graham et al., 2015).

**Taxometric Analyses**

Employing a base rate classification method allows for a more balanced and accurate approach to assigning individuals to either the taxon or complement group, based on summed indicator scores. The base rate classification method uses a base rate—empirically estimated or manually designated—to assign a proportion of high scorers to the taxon group and to assign the remainder of the sample to the complement (Ruscio, 2009; Ruscio et al., 2006).

Using the 18% base rate derived from Baur et al.’s (2015) community sample as mentioned above, the current study employed the MAMBAC, MAXCOV, and L-Mode methods to assess the current sample with prevalence rates found in a larger community that was approximately five times larger than the one used in this study. The average Comparison Curve Fit Index (CCFI) value for the total sample when using the community-derived taxon base rate was suggestive of dimensionality, $CCFI = .402$, although this value may be skewed by gender imbalance in the total sample. The use of this manually designated base rate finds that the male subsample falls firmly into the dimensional range, $CCFI = .379$, while latent structure for the female subsample remains inconclusive with a CCFI value of .522. A more extensive breakdown of the CCFI values for each of these secondary analyses can be found in Table 2.

In a secondary analysis, the present study derived estimations of putative taxon base rates from the MAMBAC and MAXCOV procedures. The mean of the MAMBAC and MAXCOV base rates was then used to estimate the boundary between taxon and complement groups, as it
has been found to be a superior identifier than the base rates estimated by MAMBAC or MAXCOV methods alone (McGrath & Walters, 2012). The values of the mean MAMBAC and MAXCOV base rate estimates (e.g., 11.6%) for the total sample and both the male and female subsamples were then used to create comparison categorical and dimensional curves for the MAMBAC, MAXCOV, and L-Mode analysis methods (see Figure 1).

The average Comparison Curve Fit Index (CCFI) value for the total sample when using the estimated taxon base rate further supports dimensionality, \( CCFI = .424 \), although this value should still be interpreted with caution due to gender imbalance. When analyzing the gendered subsamples, the results revealed consistent support via all three analyses for a continuous interpretation of the data in males, with an average CCFI value of .369. Within the female subsample, MAMBAC and MAXCOV analyses support a categorical interpretation of the data, while the L-Mode analysis CCFI value falls into the inconclusive range. However, the mean CCFI value of .640 for females maintains support for a categorical interpretation. A breakdown of CCFI values for each analysis can be found in Table 3.
Discussion

Despite strong evidence to suggest that hypersexuality and related disorders possess a dimensional latent structure (Graham et al., 2015) and the expectation that paraphilias would follow a similar structure in both men and women, the current study found evidence for dimensionality in men only, while paraphilias in women appeared to follow a distinctly categorical structure. Regardless of whether the latent structure of paraphilias in men were measured using an empirically generated base rate of 14.4% or the community-derived base rate of 18% (Baur et al., 2015), males appeared to follow a dimensional structure, further supporting the notion that men who exhibit higher amounts of paraphilic behavior are not categorically different from men who do not.

Alternatively, when the latent structure of paraphilias in women was examined using this same manually designated base rate of 18%, the current study failed to find evidence of either dimensionality or categorical structure. However, when employing the empirically generated base rate of 6.2%, the findings strongly support an underlying categorical structure of paraphilias in women, or that women who exhibit higher amounts of paraphilic behavior are distinctly different from women who do not. This disparity in the findings may have occurred as a result of the 12% discrepancy between the two base rates. This suggests that the empirically generated base rate may be the more reliable assessment, which is in congruence with common taxometric practices (Meehl & Yonce, 1994, 1996), as it is a better reflection of the overall make-up of this particular population.
Although support for a distinct taxon among women may seem surprising when juxtaposed with evidence that androphilic—or masculine-attracted—women are less discriminatory in exhibiting sexual response to provocative stimuli (Chivers, 2005; Chivers & Bailey, 2005), women are less likely than men to associate these physiological responses with sexual arousal (Suschinsky, Lalumiere, & Chivers, 2009). Furthermore, women experience similar levels of physiological arousal to sexual threat as to stimuli involving consensual intercourse between couples of various gender make-ups (Suschinsky et al., 2009); this may occur as a defense mechanism, in which the body may be protecting itself against unwanted vaginal penetration in order to decrease possible injury to the genital area (Suschinsky & Lalumiere, 2012). This less discriminatory genital response may lead to decreased desire to act on these responses (Suschinsky et al., 2009). This sexual inhibition may also lead to a relatively lower number of women engaging in extreme—or even paraphilic—sexual behavior when compared to their male counterparts, which may account for why women who do engage in these behaviors appear to be categorically different from women who do not.

On the other hand, men of all sexual orientations rely much more heavily on category-specific cues in sexually arousing stimuli (Chivers et al., 2004; Peterson, Janssen, & Laan, 2010). Typically, this is manifested when exposed to increasingly sexual stimuli of their preferred gender (Chivers, Seto, & Blanchard, 2007), but this mechanism of category-specific response may also more readily lend itself to the development of sexual response to diverse paraphilic interests among a wider range of men.

Limitations and Future Directions

It should be noted that participants constituted a non-random sample studied via a single method of self-report; this may result in mono-operational bias and calls for a wider range of
measures of paraphilia (e.g., observation, biological/physiological measures, etc.). Additionally, the current study examined an overall, broad assessment of the paraphilias. Future studies should examine the latent structure of individual paraphilias to gain a clearer understanding of latent structure of individual paraphilias within the total sample as well as both sub-samples. Differences in the nature of the individual paraphilias may confound the overall results.

Furthermore, the current study examined non-criminal samples only, so it is important to examine latent structure in populations with higher base rates of paraphilic disorders (e.g., sexual offenders), as these results may be skewed by low base rates found in non-criminal populations.

Conclusions

Even in light of these limitations, by employing taxometric methods to identify a construct’s latent structure, diagnoses of all disorders may be classified properly, thereby greatly decreasing the number of diagnostic errors that may occur (J. Ruscio, Haslam, & Ruscio, 2006). This accuracy is especially crucial in forensic settings for two reasons: to prevent guilty individuals from evading proper sentencing by hiding behind a diagnosis of hypersexual disorder, and to prevent situations where individuals charged with sex-related crimes may be subject to involuntarily civil commitment to mental hospitals following their court-mandated prison sentences (First, 2014; Knight, Sims-Knight, & Guay, 2013). While this legislation may be effective in preventing certain potential crimes, there is still the risk of unfairly incarcerating individuals who are given no chance at rehabilitation (First, 2014). When assessing risks for recidivism, or a propensity to commit a similar crime, treatment may be more effective when motivation is examined in addition to empirical correlates of risk factors (Mann, Hanson, & Thornton, 2010). Although individuals who risk being civilly committed are typically male, future research may provide a better understanding of similar recidivism rates in women.
Furthermore, the importance of accurate identification of a construct’s latent structure translates to non-forensic settings as well. The current findings also suggest that current categorical assessments used in clinical diagnoses of paraphilias may need to be reevaluated to insure greater accuracy in both non-criminal and sex offender populations, particularly if future research maintains support for dimensionality in men and taxons in women. Additionally, differences in the latent structure of individual paraphilias may provide greater insight into the development of various paraphilic behaviors in the population; this may particularly lend itself to future investigations of what factors may lead to the development of paraphilic behaviors in women and how their biological and social progression may differ from women who engage in normophilic behaviors.
References


Table 1. Descriptive Statistics, Indicator Validities, and Mean Interindicator Correlations for all Paraphilia Indicators

<table>
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<tr>
<th>Indicators</th>
<th>Range</th>
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<th>d</th>
<th>α</th>
<th>r(tot)</th>
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</tbody>
</table>

Note. \(d > 1.25\), \(r(tot) > .30\), and \(r(tax) \& r(comp) < .30\) for inclusion in analyses. “Tot” refers to total sample, “tax” refers to taxon group, and “comp” refers to complement group.
Table 2. *CCFI values generated using a community-derived base rate of 18%.*

<table>
<thead>
<tr>
<th>Taxon Base Rate Estimate</th>
<th>Comparison Curve Fit Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MAMBAC</td>
</tr>
<tr>
<td>Total ( (n = 908) )</td>
<td>.146</td>
</tr>
<tr>
<td>Male ( (n = 541) )</td>
<td>.190</td>
</tr>
<tr>
<td>Female ( (n = 367) )</td>
<td>.083</td>
</tr>
</tbody>
</table>

*Note:* CCFI values <.45 are indicative of dimensionality, whereas CCFI values >.55 are suggestive of categorical structure; CCFI values that fall in the .45-.55 range are considered inconclusive.
Table 3. *CCFI values generated using empirically-generated base rates for each subsample.*

<table>
<thead>
<tr>
<th>Taxon</th>
<th>Base Rate Estimate</th>
<th>Comparison Curve Fit Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MAMBAC</td>
<td>MAXCOV</td>
</tr>
<tr>
<td>Total (n = 908)</td>
<td>.146</td>
<td>.077</td>
</tr>
<tr>
<td>Male (n = 541)</td>
<td>.190</td>
<td>.097</td>
</tr>
<tr>
<td>Female (n = 367)</td>
<td>.083</td>
<td>.041</td>
</tr>
</tbody>
</table>

*Note:* CCFI values <.45 are indicative of dimensionality, whereas CCFI values >.55 are suggestive of categorical structure; CCFI values that fall in the .45-.55 range are considered inconclusive.
Figure 1. Simulation curve results by gender. These comparison categorical and dimensional curves were generated using the empirically generated base rates enumerated in Tables 2 and 3.