

AN EXAMINATION OF THE RELATIONSHIP BETWEEN THE PARAPHILIAS AND
ANXIETY

by

Mélanie Renaud

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Author's Declaration Page

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Abstract

Despite many proposed theories (e.g., biological, learning, evolutionary) it is still unclear how individuals develop paraphilic interests. It is not even clear from these theories why paraphilic interests are much more common in men than in women. One possible factor affecting male preponderance is anxiety. Anxiety can potentiate sexual arousal in men and deter sexual arousal in women. It has been proposed that paraphilic interests (e.g., sexual interest in children, in violence) can develop when anxious feelings are generated by unconventional sexual stimuli. According to this hypothesis, when anxiety is repeatedly elicited by an unconventional sexual stimulus, and when anxiety potentiates sexual arousal in men, over time, paraphilic interests may develop. It follows that men (but not women) with paraphilic interests may be susceptible to anxiety disorders – an anxiety disorder would facilitate the hypothesized developmental process. Part 1 of this dissertation consisted of a meta-analysis of 29 studies to determine the link between paraphilias and anxiety. Part 2 was a large-scale file review of 1,048 patients referred to a sexual behaviour clinic to investigate the link between paraphilias and anxiety. Both the meta-analysis and the file review showed a link between paraphilias and anxiety, but paraphilias were also associated with many other psychological disorders. Therefore, there does not seem to be a specific link between the paraphilias and anxiety, casting doubt on the validity of the hypothesis tested in this dissertation. The discovery of a general link between paraphilias and psychological disorders, however, opens new avenues for studying the development of paraphilic interests.

Keywords: paraphilia, anxiety, psychological disorders

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Dedication

À Einstein... For your unconditional love, cuddles, and not asking me once when my thesis would be done. Merci mon ti-gars.

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Table of Contents

Author’s Declaration Page.....	ii
Abstract.....	iii
Acknowledgements.....	iv
Dedication.....	v
Table of Contents.....	vi
List of Tables.....	viii
List of Figures.....	ix
List of Appendices.....	xiii
CHAPTER 1 – General Introduction	1
Definition.....	2
History.....	3
Prevalence.....	8
Gender Differences.....	9
Theories of Development.....	12
Paraphilias and Psychological Disorders.....	21
The Possible Role of Anxiety	23
Gender Differences and the Impact of Anxiety on Sexual Arousal.....	24
Anxiety Across Lifespan	27
Dissertation Objective.....	28
CHAPTER 2 – The Paraphilias, Anxiety, and Psychological Disorders: A Meta-analysis	29
Introduction.....	30
Method.....	31

Results.....	38
Discussion.....	44
Conclusion.....	47
CHAPTER 3 – Is There a Link Between the Paraphilias and Anxiety? A Case-Control Study of 1,048 Consecutive Patients	65
Introduction	66
Method	66
Results	74
Discussion	81
Conclusion	84
CHAPTER 4 – General Discussion	111
Implications for Theories on the Development of the Paraphilias	112
What Might Be the Nature of the Relationship Between Paraphilias and Psychological Disorders?	115
Directions for Future Research	120
Limitations	123
Conclusion	124
References.....	126

List of Tables

Chapter 2

Table 2.1. Descriptive information on included studies	49
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Chapter 3

Table 3.1. Summary of demographic variables for the paraphilic and non-paraphilic groups as diagnosed by a clinician	85
Table 3.2. Lifetime paraphilia diagnoses	87
Table 3.3. Lifetime anxiety disorder diagnoses	88
Table 3.4. Lifetime psychological diagnoses	89
Table 3.5. Number of comorbidities between paraphilia groups	91
Table 3.6. Frequency of paraphilias without comorbidity between groups	92
Table 3.7. Frequency of pedophilia diagnosis (clinician) within each SSPI-2 score (n = 570) ...	93
Table 3.8. DSFI subscale V and VI mean scores	94

List of Figures

Chapter 2

Figure 2.1. Forest plot of the 14 studies (16 samples) comparing individuals with and without paraphilias on anxiety disorders	57
Figure 2.2. Funnel plot of the 14 studies (16 samples) for studies comparing individuals with and without paraphilias on anxiety disorders	58
Figure 2.3. Odds ratios comparing individuals with a paraphilia to individuals without a paraphilia on the major mental health categories	59
Figure 2.4. Forest plot of the 28 studies (32 samples) comparing individuals with and without paraphilias on any psychological disorders	60
Figure 2.5. Funnel plot of the 28 studies (32 samples) for studies comparing individuals with and without paraphilias on any psychological disorders	61
Figure 2.6. Odds ratios comparing individuals with sadism and individuals with pedophilia, respectively, to individuals without a paraphilia on the major mental health categories	62
Figure 2.7. Odds ratios comparing individuals with a paraphilia to individuals without a paraphilia on the various categories of psychological disorders, and differentiating between self-report and clinician diagnosis	63
Figure 2.8. Odds ratios comparing individuals with a paraphilia to individuals without a paraphilia on various categories of psychological disorders, and differentiating between forensic/inpatient and general population/outpatient	64

Chapter 3

Figure 3.1. Top – Odds ratios comparing paraphilic and non-paraphilic men on the clinical diagnosis of anxiety sub-types. Bottom – Odds ratios comparing paraphilic and non-paraphilic men on Decisionbase diagnosis of anxiety sub-types 95

Figure 3.2. Top – Odds ratios comparing men with a courtship paraphilia and men without a paraphilia on the clinical diagnosis of anxiety sub-types. Bottom – Odds ratios comparing men with a courtship paraphilia and men without a paraphilia on Decisionbase diagnosis of anxiety sub-types 96

Figure 3.3. Top – Odds ratios comparing men with pedophilia and men without a paraphilia on clinical diagnosis of anxiety sub-types. Bottom – Odds ratios comparing men with pedophilia and men without a paraphilia on Decisionbase diagnosis of anxiety sub-types 97

Figure 3.4. Top – Odds ratios comparing men with a fetishistic paraphilia and men without a paraphilia on clinical diagnosis of anxiety sub-types. Bottom – Odds ratios comparing men with a fetishistic paraphilia and men without a paraphilia on Decisionbase diagnosis of anxiety sub-types 98

Figure 3.5. Top – Odds ratios comparing men with a sadomasochistic paraphilia and men without a paraphilia on clinical diagnosis of anxiety sub-types. Bottom – Odds ratios comparing men with a sadomasochistic paraphilia and men without a paraphilia on Decisionbase diagnosis of anxiety sub-types 99

Figure 3.6. Top – Odds ratios comparing men with other paraphilias (necrophilia, coprophilia, urophilia, zoophilia, and paraphilia NOS) and men without a paraphilia on clinical diagnosis of

anxiety sub-types. Bottom – Odds ratios comparing men with other paraphilias (coprophilia, urophilia, and paraphilia NOS) and men without a paraphilia on Decisionbase diagnosis of anxiety sub-types 100

Figure 3.7. Top – Odds ratios comparing men with a paraphilia diagnosis and men without on clinical diagnosis of the major disorder categories. Bottom – Odds ratios comparing men with a paraphilia diagnosis and men without on Decisionbase diagnosis of the major disorder categories 101

Figure 3.8. Top – Odds ratios comparing men with a courtship paraphilia and men without a paraphilia on clinical diagnosis of the major disorder categories. Bottom – Odds ratios comparing men with a courtship paraphilia and men without a paraphilia on Decisionbase diagnosis of the major disorder categories 102

Figure 3.9. Top – Odds ratios comparing men with pedophilia and men without a paraphilia on clinical diagnosis of the major disorder categories. Bottom – Odds ratios comparing men with pedophilia and men without a paraphilia on Decisionbase diagnosis of the major disorder categories 103

Figure 3.10. Top – Odds ratios comparing men with a fetishistic paraphilia and men without a paraphilia on clinical diagnosis of the major disorder categories. Bottom – Odds ratios comparing men with a fetishistic paraphilia and men without a paraphilia on Decisionbase diagnosis of the major disorder categories 104

Figure 3.11. Top – Odds ratios comparing men with a sadomasochistic paraphilia and men without a paraphilia on clinical diagnosis of the major disorder categories. Bottom – Odds ratios

comparing men with a sadomasochistic paraphilia and men without a paraphilia on Decisionbase diagnosis of the major disorder categories 105

Figure 3.12. Top – Odds ratios comparing men with another paraphilia and men without a paraphilia on clinical diagnosis of the major disorder categories. Bottom – Odds ratios comparing men with another paraphilia and men without a paraphilia on Decisionbase diagnosis of the major disorder categories 106

Figure 3.13. Top – Percentage of patients with a clinical diagnosis of a psychological disorder in relation to the number of comorbid paraphilia diagnoses. Bottom – Percentage of patients with a Decisionbase diagnosis of a psychological disorder in relation to the number of comorbid paraphilia diagnoses 107

Figure 3.14. Top – Odds ratios comparing men with a pedophilia group only diagnosis and men without a paraphilia on clinical diagnosis of the major disorder categories. Bottom – Odds ratios comparing men with a pedophilia group only diagnosis and men without a paraphilia on Decisionbase diagnosis of the major disorder categories 108

Figure 3.15. Top – Odds ratios comparing men with a score of 4-5 on the SSPI-2 and men with a score of 0 on clinical diagnosis of the major disorder categories. Bottom – Odds ratios comparing men with a score of 4-5 on the SSPI-2 and men with a score of 0 on Decisionbase diagnosis of the major disorder categories 109

Figure 3.16. Cohen's *d* comparing men with a paraphilia and men without a paraphilia on total scores of the psychological symptoms subscale (GSI) as well as the affect subscale (ABI) of the DSFI..... 110

List of Appendices

Appendix A. Data Search Strategy	146
Appendix B. PRISMA Flow Chart	147
Appendix C. General Statistic Form	148
Appendix D. Variable Coding Form	153
Appendix E. The Revised Screening Scale for Pedophilic Interests – 2	156
Appendix F. The Psychological Symptom Subscale of the DSFI	157
Appendix G. The Affect Subscale of the DSFI	158
Appendix H. Coding Form – File Review	159

CHAPTER 1
GENERAL INTRODUCTION

Possum is sexually attracted to horses but not people (Earls & Lalumière, 2009). John was charged with possession of child pornography and admitted he masturbated to fantasies of sexual interactions with young boys (Seto, 2018). How do people develop such paraphilic interests? Although many paraphilias have been well described (e.g., zoophilia, pedophilia), their origins and development remain a mystery. Paraphilias refer to persistent sexual interests toward atypical objects, persons, or activities. Although many paraphilias are harmless, some likely contribute to sexual crimes; for example, pedophilia can lead to the sexual abuse of children. A few studies have suggested elevated rates of anxiety disorders among men diagnosed as having a paraphilia. But it is unclear where anxiety stands compared to other psychological disorders in relation to paraphilias.

I propose two studies designed to investigate a possible connection between the paraphilias and anxiety disorders. A novel hypothesis regarding the role of anxiety in the development of paraphilic interests will be tested. Before presenting the empirical work, and to provide context, I examine historical developments in the conceptualisation of the paraphilias, describe some challenges in determining the prevalence of paraphilias, discuss the gender differences regarding atypical sexual interests and paraphilic disorders, summarize relevant theories regarding the etiology of paraphilias, and present the novel hypothesis.

Definition

A *paraphilia* is defined as a sexual interest in an atypical target or activity (American Psychiatric Association, 2013). Some of the most common examples are obtaining sexual gratification from exposing one's genitals to an unsuspecting person (exhibitionism), or having a sexual attraction towards prepubescent children (pedophilia). If a paraphilia causes distress to the person, or harm to others, it is classified as a *paraphilic disorder*. Thus, the atypical sexual

attraction is not considered a disorder unless it is accompanied by distress or harm. As it will be discussed in the next section, the depathologizing of paraphilias is a fairly recent phenomenon.

History

What is considered to be a paraphilia not only changes over time but also across cultures. In the context of research this makes it difficult to compare study results coming from different researchers who may conceptualise paraphilias differently, or that have been conducted at different points in time. When conducting the meta-analysis—chapter 2 of this dissertation—it was important to determine how paraphilias were conceptualised within each article and take these variations into consideration. Before I begin, it is important to mention that this section is largely based on the De Block and Adriaen's (2013) synthesis regarding the history of pathologizing sexual deviance.

Tracing back the history of paraphilias is not an easy task. Although sexual instincts might not have changed much over time, social reactions to them definitely has. For example, homosexuality has been around for many centuries, but the social reaction to it has changed. The difference between “normal” and “deviant” sexual behaviours is strongly influenced by social, religious, as well as historical context and traditions. To this day, in some societies, bestiality is seen as acceptable, particularly among teenage males (Bhugra, Popelyuk, & McMullen, 2010; Kafka, 1994). Insight into these variations of what is considered to be deviant sexuality can be found within a culture's legal codes, religious proscriptions, and literary and philosophical descriptions (Bhugra et al., 2010). The variance in cultures and changes over time is noticeable all the way back to the Greeks and Romans, who accepted an array of sexual behaviours, to the days of Christianity, a much more conservative culture where sexuality was only acceptable in the context of procreation (Bhugra et al., 2010).

Foucault, a historian and philosopher of the 1970s, was very influential in developing the view that what is considered to be healthy or deviant sexuality is determined, not by nature or science, but by the changes within the values and norms of a society (Foucault, 1976). This view has been shared by many authors throughout the years (Bhugra et al., 2010; Gordon, 2008; Kafka, 1994). A good example to demonstrate the relation between the legal system (what is considered to be deviant) and social values, is that during the 17th and 18th century, sexual behaviours that could not result in reproduction, such as anal sex, homosexuality, and bestiality, were punishable by law resulting in a death sentence (Peakman, 2009). Even as the field of psychiatry started thinking about sexuality, this cultural influence was still very present, as in Samuel August Tissot's *L'Onanisme, dissertation sur les maladies produites par la masturbation* (1797), in which he discussed the idea that masturbation and other non-reproductive sexual behaviours might cause both mental and physical problems (De Block & Adriaens, 2013). A century later, in the 1800s, individuals in the medical field still described sexual pathologies as perversions, a term that "was used to denote an aberration or a deviation from a divine norm: any act that violated the laws of God was considered a perversion" (De Block & Adriaens, 2013, p. 278).

In the late 1800s, the idea that sexual deviancy is a symptom of a disordered personality emerges, replacing the theory that it is a result of weak will or defective anatomy (De Block & Adriaens, 2013). With this change came an apparent separation between law and sexuality. In his book, *Psychopathia Sexualis* (1886/1894), Richard von Krafft-Ebing, a forensic psychiatrist in the late 1800s, differentiated between the perversion, which he described as a disease, and the crime. He discussed the differences in normal, criminal, and perverse sexual behaviours, touching on the concept of a continuum where perversions are an exaggeration of healthy

behaviours.

At around the same time (end of the 1800s, beginning of the 1900s), Freud developed his theory of sexual deviancy, which constituted another shift in the perception of sexuality within the field of psychiatry. According to him, sexual deviancy was a result of inner conflicts and mental resistance in the forms of shame and disgust (Freud, 1905/1975). The psychoanalytic approach to sexuality would later provide the framework for the diagnostic manuals until the 1960s (Kandel, 1998).

The diagnostic manual published by the American Psychiatric Association (APA) can be seen as a reflection of how disorders were conceptualized throughout the years, including sexual disorders, it therefore provides insight on how society viewed sexual deviancy at various points in time in the 20th century. The first edition, published in 1952, did not say much about sexual deviations. They were classified under the sociopathic personality disturbances, within the personality disorder section, which indicated that “Individuals to be placed in this category are ill primarily in terms of society and of conformity with the prevailing cultural milieu, and not only in terms of personal discomfort and relations with other individuals” (American Psychiatric Association, 1952, p. 38). Furthermore, in the brief section on sexual deviations, the clinician was required to specify the behaviour, listing the following deviations: “homosexuality, transvestism, pedophilia, fetishism and sexual sadism (including rape, sexual assault, mutilation)” (American Psychiatric Association, 1952, p. 39). In this conceptualisation, it is noticed that the societal and cultural components still had a strong impact on how sexual deviations were defined and perceived.

In the second edition of the DSM, published in 1968, minor changes were made to the category of sexual deviations. Three different sexual interests were defined that could constitute

a sexual deviation: 1) toward objects other than people of the opposite sex, 2) toward sexual acts not usually associated with coitus, or 3) toward coitus performed under bizarre circumstances as in necrophilia, pedophilia, sexual sadism, and fetishism (American Psychiatric Association, 1968). Furthermore, more specifiers were added for a list of 10: homosexuality, fetishism, pedophilia, transvestitism, exhibitionism, voyeurism, sadism, masochism, other sexual deviation, and unspecified sexual deviation. “More importantly, however, all references to the pathogenic power of social values and norms in the general description of the sexual deviations were omitted” (De Block & Adriaens, 2013, p. 287). Even though it was not mentioned, the impact of social values and norms with the inclusion of homosexuality is still noticeable.

A new task force was created for the writing of the DSM-III, led by Robert Spitzer. “Unlike the DSM-II’s task force, all members of Spitzer’s group were in favour of biological psychiatry, rather than psychoanalysis, and a symptom-based rather than etiologic approach to diagnosis” (De Block & Adriaens, 2013, p. 289). This resulted in some major changes in the 1980 edition of the DSM, including the sexual deviation section. Changes were also influenced by the societal pressure that had risen in regards to the inclusion of homosexuality in that category. In the midst of the political and scientific battle surrounding homosexuality, Spitzer created a draft in which homosexuality was removed and replaced by sexual orientation disturbance. When the new edition was published in 1980, the definition of mental disorder had also been updated specifying that, “When the disturbance is limited to a conflict between an individual and society, this may represent social deviance, which may or may not be commendable, but is not by itself a mental disorder” (American Psychiatric Association, 1980, p. 6). With this new definition the field of psychiatry was clearly trying to distance itself from the influence of culture and society in its definition of mental disorders and sexual deviance.

Interestingly, the removal of homosexuality was strongly influenced by societal pressure. Not to mention that to this day some cultures still consider homosexuality to be a mental illness and punishable by law (e.g., Cameroon, Egypt, Lebanon, Syria). Nonetheless, most of the deviations from DSM-II were present in the third version. What differed was the name of the category, which had been changed to paraphilia, as well as the diagnostic class under which they were classified (psychosexual disorders), no longer part of personality disorders. This diagnostic class also housed the new gender identity disorders as well as psychosexual dysfunctions (American Psychiatric Association, 1980).

The criterion for paraphilias was now based on the exclusivity and the repetitiveness of the sexual urges or fantasies. This changed with the revision of the DSM-III in 1987, when the criteria were divided into two. Criterion A, indicating the necessity of having recurrent intense sexual urges and sexually arousing fantasies, over a period of at least six months, and Criterion B, stating that the person had acted on these urges, or was markedly distressed by them (American Psychiatric Association, 1987). Clinicians therefore needed to consider not only the outcome of the sexual behaviours, but also the individuals' preferences and urges as well.

In the next two versions (DSM-IV and DSM-IV-R), not many changes occurred in the paraphilia section. What did change in the 1994 edition was Criterion B, which no longer included acting on the urges (American Psychiatric Association, 1994). But in 2000, criterion B reverted back to what was indicated in the DSM-III-R, where acting on unusual sexual urges would qualify for a diagnosis. The only variation is that this was specific to paraphilias that may involve non-consenting victims (American Psychiatric Association, 2000), such as pedophilia.

This brings us to the fifth and current version for which the definition of the paraphilic disorder was discussed at the beginning of the section. What is important to note in the division

of paraphilia and paraphilic disorder is that it emphasizes “that nonnormative sexuality need not necessarily be a mental disorder” (De Block & Adriaens, 2013, p. 293). Mild and harmless forms of sexual deviations are being depathologized. Nonetheless, deviant sexual interests are still to this day influenced by what we as a society define as deviant. A good example of this is how the definition of pedophilia is related to the legal definition of age of consent, an age that varies across countries (Bhugra et al., 2010).

This variation in the conceptualisation of paraphilias makes it very difficult to determine their prevalence, because the prevalence of something is based on its definition, and the definition of paraphilias has varied over time and place.

Prevalence

When trying to determine the prevalence of paraphilias, there are many complicating factors, one of them being that researchers have used different conceptualisations of the term “paraphilias”. As discussed, throughout history the definition of paraphilia has shifted. Furthermore, due to the stigma associated with paraphilias, they are rarely disclosed.

Langstrom and Seto (2006) looked at the prevalence of voyeuristic and exhibitionistic behaviours within the Swedish general population. They found that 4% of men and 2% of women reported at least one episode of exhibitionistic behaviour, and that 11% of men and close to 4% of women reported at least one episode of voyeuristic behaviour. Considering that some of these individuals might have only engaged in the reported behaviour once, and that the behaviours may not have been driven by sexual attraction, these numbers are poor estimates of prevalence of actual paraphilias. Yet, these are the numbers reported by the APA in the most current version of their diagnostic manual (American Psychiatric Association, 2013).

In the same vein, Abel, Becker, Cunningham-Rathner, Mittleman, and Rouleau (1988)

reported that 11% of their clinical sample of men seeking voluntary evaluation or treatment of possible paraphilias met DSM-II/DSM-III criteria for frotteurism. From this, we can deduce that the prevalence within the general population would not exceed that number.

Another paraphilia that is often studied and discussed is pedophilia. Many people often wrongly label sex offenders against children as pedophiles, which causes confusion when reporting prevalence rates. In a large forensic sample of sex offenders against children, Seto and Lalumière (2001) found that only 27% were identified as having pedophilic interests based on penile responses to film clips depicting nude individuals of both sexes from four age categories. The prevalence for pedophilia within the general population is unknown but estimated to be around 5% (Seto, 2009).

Joyal and Carpentier (2016) surveyed the prevalence of paraphilic interests and behaviours in the general population within the province of Quebec. In their sample of 1,040 adult men and women, 46% reported a desire to engage in, and 34% indicated having engaged in, at least one paraphilic behaviour and having been sexually aroused by it. Similarly, Castellini et al. (2018) surveyed a sample of 775 Italian university male and female students. The results indicated that 51% of the men and 42% of the women reported having engaged in at least one paraphilic behaviour. Additionally, 68% of the sample indicated having a paraphilic fantasy at some point in their lives and 52% reported masturbating to a paraphilic fantasy.

These results suggest that paraphilic interests may not be as rare a phenomenon as once thought. Although researchers have discovered that paraphilias might be frequent, there is also research suggesting gender differences when it comes to experiencing paraphilias.

Gender Differences

A striking fact concerning paraphilias is that they occur almost exclusively in males

(Seto, 2008, 2013). This gender difference is observable in the sex offender population, where there are approximately 20 males for each female charged with a sexual offence (Statistics Canada, 1999), and in community samples, where men report more interests than women in a variety of atypical sexual activities (e.g., Dawson, Bannerman, & Lalumière, 2016; Langstrom & Seto, 2006). Very few psychological disorders or phenomena have a gender bias of this magnitude.

Additionally, samples with paraphilic women are rarely seen in the forensic or clinical literature. For example, Hucker and Blanchard (1992) looked at deaths by autoerotic asphyxia and compared them to deaths by suicidal asphyxia. The sample of deaths by autoerotic asphyxia consisted of 117 males and 1 female, compared to the death by suicidal asphyxia group which consisted of 84 males and 34 females. Likewise, in a clinic specializing in the assessment of paraphilic sexual disorders, Fedoroff, Fishell, and Fedoroff (1999) obtained a sample of 14 women and 118 men. Both groups were similarly assessed for possible paraphilic disorders. Only 12 women from that group were subsequently diagnosed with a paraphilic disorder. This discrepancy was also present in the file review study in this dissertation (Chapter 3) in which only 13 of the initial 1,048 patients seen over a ten-year period at a specialized clinic were female. That being said, the gender difference is not as dramatic when considering paraphilic interests (as opposed to disorders) in the general population. Yes, the gender difference is still present.

Joyal and Carpentier (2016) looked at the desire to engage in paraphilic behaviours in a sample of 475 men and 565 women ($n = 1,040$) from the general population of Quebec, Canada. They found that significantly more men than women reported a desire to engage in voyeuristic and froteristic behaviours. In contrast, significantly more women than men reported a desire to

experience masochism.

In a study looking at differences in paraphilic interests in men and women ($n = 1,015$; 351 men, 785 women, and 90 gender not identified), Dawson et al. (2016) found that, in general, men were less repulsed by paraphilic activities than women. The only exception to this was with masochism and transvestic fetishism where no gender differences were found. A higher degree of masculinity was associated with higher paraphilic arousal in women, and sex drive was the only factor to fully mediate the gender difference. In other words, when sex drive was accounted for, no gender differences in paraphilic interests remained, given that men tend to have a higher sex drive than women (reviewed in Baumeister, Catanese, & Vohs, 2001).

In another community sample ($n = 1,222$; 517 men and 615 women), and using more in-depth measures of sex drive, Levaque, Dawson, Wan, and Lalumière (submitted) found that sex drive only partially mediated the gender difference in paraphilic interests. Thus, there are likely other factors at play in explaining the gender difference in paraphilic interests.

Furthermore, gender differences are not specific to paraphilias, they are also seen in general attitudes regarding sexuality. Oliver and Hyde (1993) conducted a meta-analysis looking at gender differences in sexual behaviours and attitudes. Their results indicated large gender differences regarding masturbation as well as attitudes towards casual premarital sex. An updated meta-analysis was then published by Petersen and Hyde (2010), which yielded similar results concluding that men reported slightly more experience and permissive attitudes than women in regards to sexuality.

Gender differences are also present in sexual arousal patterns. Men are found to be category-specific (their genital arousal corresponds to their self-reported sexual arousal), compared to women who show non-specificity (increase in genital arousal to both preferred and

non-preferred sexual stimuli) (Chivers, 2005). More specifically, in women there is low concordance between physiological sexual arousal and feelings of arousal, suggesting a separation between the physiological, psychological, and behavioural aspects of sexual arousal in women but not in men (Chivers, Seto, Lalumière, Laan, & Grimbos, 2010).

These various factors (e.g., sex drive, attitudes towards sexuality, physiological sexual responses) potentially contribute to the gender differences in the development of paraphilias. In the next section, I discuss theories that have been generated to explain the development of paraphilias. None provide a satisfactory explanation for the development of paraphilic interests, nor do they take into account the gender differences in the prevalence of paraphilic interests or paraphilic disorders.

Theories of Development

Before I begin elaborating on the etiology of paraphilias, it is important to remember the distinction between interest and behaviour. Behaviour itself is not necessarily an accurate representation of sexual interest, which is much harder to explain (Quinsey & Lalumière, 1995). What is being explored here is how an individual develops a sexual interest towards an atypical target.

In the early 1900s, Freud theorized that every child is sexually perverse due to a range of partial sexual instincts originating from the erogenous zones. “In fact he strongly believed that the child’s polymorphously perverse sexuality could give rise to both healthy and pathological adult sexual fantasies and behaviours” (De Block & Adriaens, 2013, p. 282). A perversion would develop when a child fixated on one of the partial sexual instincts, which would cause him or her to regress to this fixation at the age of puberty. He later suggested that perversions were much more complex than he initially believed and modified his theory adding that fixations are a

result of the denial of sexual trauma, particularly castration anxiety resulting from the Oedipal conflict. He argued that every perversion is a result of a defense against castration anxiety. For example, masochism develops by sexualising castration in an attempt to retain sexual pleasure, and fetishism is a result of sexualizing objects to avoid castration (Freud, 1905/1975).

There is no empirical research on Freud's theory of the development of paraphilia, apart from a few case studies. This leaves researchers wondering whether the theory on which psychoanalysts have constructed their understanding of paraphilias is valid (Gordon, 2008).

Behavioural theorists explain the development of paraphilias with the concept of conditioning. Classical conditioning involves the pairing of two stimuli. Prior to conditioning, the unconditioned stimulus (UCS) already produces a response, the unconditioned response (UR). The conditioned stimulus (CS) is initially neutral and does not result in a response. When the CS and the UCS are presented together, over time, the CS becomes sufficient to produce a response on its own, the conditioned response (CR). For example, if a heterosexual man often masturbates to a picture of a woman (UCS) with high heels (CS); his response is an erection and ultimately ejaculation (UR). Over time the high heel shoes can become a conditioned stimulus and therefore sufficient in creating the response of erection and ejaculation (CR). Once this link is created the individual is said to have an atypical sexual interest or in this case a fetish.

The second form of conditioning is operant conditioning, which involves reinforcement and punishment. Behaviours that are reinforced will occur at greater frequency and behaviours that are punished will diminish in frequency. In the development of paraphilias, orgasms act as reinforcement. Therefore, if a paraphilic fantasy or act is followed by an orgasm, the behaviour in question will occur more frequently (Aggrawal, 2008; O'Donohue & Plaud, 1994). Thus, when an atypical fantasy or act is consciously or unconsciously associated with a pleasurable

activity (e.g., masturbation leading to orgasm), a link is created and the object of the fantasy or act becomes sexually arousing.

Although research has shown that conditioning may play a role in the development of paraphilias, there are likely other factors involved. For example, the conditioning theory does not explain how an individual develops a sexual attraction prior to being in contact with the target. For example, Earls and Lalumière (2009) reported a case study of an individual living in the city who discovered a sexual attraction towards horses without prior contact with the animal. Furthermore, research in the field of sexual conditioning has shown some evidence for it with animals (Pfaus, Kippin, & Centeno, 2001), but with humans, sexual responses have been much harder to condition in the laboratory (Hoffmann, Peterson, & Garner, 2012; Lalumière & Quinsey, 1998; Letourneau & O'Donohue, 1997; O'Donohue & Plaud, 1994; Plaud & Martini, 1999). Additionally, Johnston, Hudson, and Marshall (1992) found weak evidence for the effectiveness of masturbatory reconditioning with sex offenders, which provides further evidence of the difficulties related to sexually conditioned responses. All of this suggests that there is likely more to the development and maintenance of paraphilias than the conditioning theory can explain.

Money (1986) described the development of sexual interest in terms of a lovemap. According to him, the creation of the lovemap begins in prenatal life with the influence of sex hormones within the uterus, and continues its development throughout childhood and adolescence. The vandalism of the lovemap is what leads to the development of paraphilias. Lovemaps can be vandalised as a result of, for example, the condemnation of sexueroptic rehearsal play in childhood, or the reaction of others to the individual's sexual experiences in childhood. These experiences impede the natural development of the heterosexual lovemap and,

as Money described using the Opponent Process Theory, “turn the tragedy of suffering into the triumph of survival.” (Money, 1986, p. 36)

In his article on sexual addiction and paraphilias, Birchard (2011) also discussed the etiology of paraphilias through the Opponent Process Theory of Acquired Motivation, which states that when faced with an unpleasant situation, the brain automatically changes it into an acceptable or pleasant one, an idea that was first developed by Stoller (1975). Birchard explained that, according to Money and Lamacz (1989), there are four ways in which the development of sex and relationship templates – a concept developed by psychoanalysts, similar to a lovemap – is influenced by the social environment: 1) explicitly neglecting to monitor and reinforce healthy sexual rehearsal play, 2) punishing or humiliating children for rehearsal play, 3) prematurely inducting children into sexual rehearsal play, and 4) coercing children into age-discrepant sexual rehearsal play. He goes on to argue that according to the Opponent Process Theory, traumatic events in childhood related to these situations are reversed and made pleasurable by eroticization. Other authors such as Kahr (2007) and Bader (2003) also argued that paraphilias are a transformation of childhood trauma.

Looking at the research on victims of child sexual abuse becoming abusers themselves, which would tap into the third and fourth point (prematurely introducing or coercing children into sexual play), results are clear: Many sex abusers have a history of being a victim of sexual abuse, but most victims do not become abusers (e.g., Jespersen, Lalumière, & Seto, 2009; Widom, Czaja, & DuMont, 2015). Since most victims do not become abusers, traumatic events in childhood may not be sufficient to explain the development of atypical sexual interests.

In a similar vein, Levine, Risen, and Althof (1990) proposed that paraphilias can be conceptualized as a form of defense. They presented four hypotheses. The first is a defense

against remembering the poor quality of parental relationships. They stated that the evidence shows that many individuals with paraphilias have been sexually abused as children. They explained that sexual deviance “may be a complicated way of repeating, rather than remembering, a poor interpersonal connection” (p.101). The second is a defense against further instability of sexual identity. They based this defense on the fact that the nature of paraphilias often change over the lifetime and hypothesized that these changes may be a way of avoiding orientation or gender instability. The third is a defense against dysphoric feelings, according to which paraphilias would be a form of retreat from unwanted emotions such as anxiety and sadness. Lastly and similarly to the third point, the authors proposed that sexual deviance may be a defense against adapting to the demands of life. Therefore, instead of dealing with the demands of life the individual retreats to his private world of paraphilic fantasies.

One of the premises on which this theory is based (victims becoming abusers) has already been discussed. Most victims do not become abusers. This being said, the defense theory adds a different component by touching on the concept of anxiety. Despite this addition, no specific research has tested this theory.

Another theory, this one developed in the 1990's, is the courtship disorder theory by Freund and Watson (1990): Paraphilias can be explained through a distortion of the courtship phases. According to Freund and Watson, courtship can be divided into four phases: 1) the search phase, which consists of locating a potential partner, 2) the pretactile interaction phase, which is when an individual converses or flirts with a potential partner, 3) the tactile interaction phase, described as physical contact such as, touching, hugging, hand-holding; and finally 4) the genital union phase, which consists of intercourse. The authors hypothesized that paraphilias are a result of an exaggeration of one of the four phases described. For example, voyeurism can be

seen as an exaggeration of the search phase, and frotteurism an exaggeration of the tactile interaction phase.

This theory relates more specifically to the activity paraphilias of voyeurism, exhibitionism, frotteurism, and preferential rape. Research has demonstrated that these paraphilias have a tendency to co-occur (Freund, 1988; Freund & Watson, 1990), indicating that there may be a common factor associated to their development. This theory is less relevant to object paraphilias (e.g., pedophilia), and the common factor that may link them has not been identified. This information suggests that paraphilias may not be homogeneous and that their developmental pathways may differ. A concept that will be further explored in the General Discussion Chapter.

According to the evolutionary perspective, genes that are beneficial to reproduction are more likely to be passed from generation to generation. Gardner (1993) has argued, within this perspective, that paraphilia genes, which are still present in today's society, can be seen as an enhancer of sexual excitation, which would increase the likelihood that individuals engage in sexual acts that lead to procreation. Furthermore, and more specifically in regards to pedophilia, Gardner explained that although prepubescent children cannot procreate, the early exposure to sexuality will make the child crave sexual experiences and make them more likely to be sexually active following puberty. This would benefit the aggressor by increasing his chances of sexual contact and in turn making it more likely for him to transmit his genes.

Many arguments can be made against Gardner's theory. It assumes that once the child is in age of procreation, she will still have sexual relations with the aggressor. It does not account for the common interest for male victims in men who have pedophilic tendencies. Similarly to the courtship theory, Gardner's theory only accounts for specific paraphilias such as pedophilia

and biastophilia (an interest in sexual coercion). Furthermore, it does not explain how, for example, fetishism might develop. This being said, this view in which paraphilias are seen as having a genetic basis was part of the beginning of a shift towards a more neurobiological perspective on the etiology of paraphilias.

Quinsey and Lalumière (1995) hypothesized that sexual interests can be conceptualised in a modular way. According to this theory, humans have independent sexual attraction modules designed to detect elements such as gender, youthfulness, and body shape. By default they are set to the sexual characteristics of sexually mature adults. A malfunctioning module would lead to atypical sexual interests. For example, if the body shape or the youthfulness modules are defective this may lead to pedophilia. They further explained that the malfunctioning of the modules could be a result of unbalanced in utero hormonal exposure or maternal immunoreactivity to male fetuses. The modular theory answers certain questions such as the greater prevalence of paraphilias in males because males are more susceptible to neurodevelopmental perturbation early in life (Gualtieri & Hicks, 1985).

Looking at neurodevelopmental correlates of paraphilic sexual interest in a community sample of 200 heterosexual men, Rahman and Symeonides (2008) found that non-right handedness and number of older brothers, two putative neurodevelopmental markers, were associated with paraphilic sexual interest. In addition, low IQ, physical anomalies (elevated craniofacial-to-peripheral ratio), lower height, and poorer memory have been empirically linked to pedophilia (Blanchard et al., 2007; Cantor et al., 2004; Dyshniku, Murray, Fazio, Lykins, & Cantor, 2015; Fazio, Lykins, & Cantor, 2014). These effects may be due to the mother's immune system response to the foetus-produced antigens becoming stronger following multiple male pregnancies (Quinsey & Lalumière, 1995). This is said to affect the foetus at the stage of

brain development, which may result in neurodevelopmental deficits such as low IQ. Other causes of neurodevelopmental perturbations are likely involved, because men diagnosed with pedophilia do not have an excess of older brothers (e.g., Hall et al., 2017).

Most of the neuropsychological research has been conducted with pedophilic samples, which leaves little information regarding neurodevelopmental correlates of paraphilias in general. Furthermore, in their article on paraphilias across cultures, Bhugra et al. (2010) concluded that “paraphilias are sometimes associated with certain brain abnormalities that may disrupt normal neural and psychosexual development” (p. 253), but they went on to argue that this perspective does not take into consideration the cross-cultural framework, stating that the majority of the studies are conducted with western samples, therefore limiting the generalizability of the research findings.

The idea that atypical sexuality is a result of brain functioning was further developed by Balyk (1997), who conceptualised paraphilias as a subtype of obsessive compulsive disorders (OCD), an idea that was suggested by Stein et al. (1992) in their research with serotonergic medication used to treat OCD. Balyk suggested that paraphilic behaviours have content specific rituals as well as well-defined mental or behavioural sequences. He mentioned that individuals who have OCD often have parents who suffer from anxiety disorders and that being brought up in an environment with excessive parental encoding of fear, doubt, and paranoia, forces children to adapt by creating their own rituals and behaviours. He then argued that exposure to sexuality in childhood creates biochemical changes in the brain thus creating a Sexual-Erotic Arousal Pattern (SEAP), which he described as a template of behaviour imprinted in memory. Once the paraphilic SEAP is activated, the “worry” perseveres until orgasm ends the ritual. The positive reinforcement obtained through orgasm maintains the cycle.

This complex theoretical model has not been tested, and as mentioned previously, the research on exposure to sexuality in childhood shows that most individuals who have been sexually abused as children do not go on to become abusers or paraphilic (and abusers and paraphilic individuals do not all have a history of sexual abuse in childhood). This is contradictory to the argument that sexuality in childhood leads to the development of atypical sexual interests, which in this case might be described as an atypical SEAP. This theory does, however, emphasize the role that anxiety could play in the development of paraphilias.

Lastly, one of the most recent theories was developed by Kafka in 1997 and later updated in 2003. What he described as the monoamine hypothesis is based on the premises that 1) norepinephrine, dopamine, and serotonin play a role in the sexual drive of laboratory animals, 2) side-effects of antidepressant, psychostimulants, and neuroleptic drugs, which act on the monoamines mentioned, have an impact on human sexual functioning, 3) monoamines appear to play a role in psychopathologies such as anxiety, impulsivity, depression, and compulsivity in paraphilic sexual aggressors, and 4) pharmacological agents related to the monoamines diminish paraphilic sexual arousal and behaviours (Kafka, 1997, 2003). If this theory were correct, individuals who have a paraphilia would be at higher risk to also have a psychological disorder related to the monoamines (e.g. anxiety, depression). Because there is not much research on the subject, it is unclear whether paraphilias are linked to specific psychological disorders such as anxiety.

From Freud's psychoanalytic theory to Kafka's biological view, the theories regarding the development of paraphilias have greatly evolved over the years. For the most part, research does not support these theories or there have been few tests of these theories. Many theories are relevant to only one or a few paraphilias, and most do not account for the sex difference in the

prevalence of paraphilias. That being said, some of the theories presented suggest a link between paraphilias and psychological disorders.

Paraphilias and Psychological Disorders

Theories such as Balyk's and Kafkas's suggest that psychological disorders may play a role in the development of paraphilias. In order to investigate this further, comorbidities between paraphilias and psychological disorders must be explored. There are very few studies in the literature investigating this relationship. The few studies that exist tend to conclude that there is a high rate of psychiatric comorbidity among men with paraphilias (Black, 1998; Grant, 2005; Kafka, 1994; Kafka & Hennen, 2002; Raymond, Coleman, Ohlerking, Christenson, & Miner, 1999). That being said, the disorders reported as comorbid vary across studies.

Kafka and Hennen (2002) examined comorbidity in outpatient males with paraphilic disorders compared to males with paraphilia related disorders (PRD). PRDs are socially acceptable sexual behaviours that are disinhibited and considered too frequent (e.g., excessive masturbation). They found that men with a paraphilic disorder had more lifetime non-sexual psychiatric disorders than men with PRDs. The most frequent comorbid disorders, for both groups, were mood disorders and more specifically dysthymic disorder, followed by psychoactive substance abuse and then anxiety disorders, with social phobia being the most common anxiety disorder. When both groups were compared on a specific disorder, most of the differences were not statistically significant. The only significant difference was on the measure of self-reported attention deficit hyperactivity disorder (ADHD) and conduct disorder, which were more prevalent in the group of men with paraphilias. Both groups were similar in that they both had sexual behaviours or frequency of behaviours that are considered problematic, but the comparison may not be ideal. Even though in PRDs the sexual target or the sexual activities are

not paraphilic, the behaviours are disinhibited, which may be anxiety provoking for the individual and may lead to the development of comorbid psychological disorders. Without a proper comparison group, it is hard to determine what comorbid disorders are more prevalent in individuals with paraphilias or paraphilic disorders.

Carlstedt, Innala, Brimse, and Anckarsater (2005) examined comorbidities with pedophilic interests. They divided 185 sex offenders against children into two groups: One group was composed of individuals who met criteria for pedophilia and the other group of individuals did not. They found no differences in the prevalence of psychiatric comorbidities. When examining the non-significant group differences, anxiety was less prevalent than substance disorders, psychotic disorders, as well as mood disorders.

Marsh et al. (2010) assessed 112 individuals with voluntarily admission to a psychiatric inpatient unit. Fifteen (13 %) individuals in their sample had a lifetime diagnosis of a paraphilia and 7 (6 %) still met criteria at the time of the study. Although there were no significant differences in comorbidity rates between individuals with or without paraphilias, the paraphilia group had higher rates of anxiety disorders, and there were smaller differences for mood, substance, and psychotic disorders.

Most of the research on paraphilias has been conducted with sex offenders. It has been found that sex offenders, regardless of whether or not they have a diagnosis of a paraphilic disorder, have more psychological disorders (e.g. anxiety, dysthymia, post-traumatic stress disorder (PTSD), and major depression), compared to non-sex offenders (i.e. those who have committed other, non-sex-related offences) (Ahlmeyer, Kleinsasser, Stoner, & Retzlaff, 2003; Fazel, Hope, O'Donnell, & Jacoby, 2002). Furthermore, sex-offenders against children are different than sex-offenders against adults in terms of psychological disorders, with child

molesters having higher rates of anxiety, depression, and dysthymia (Ahlmeyer et al., 2003; Nunes, McPhail, & Babchishin, 2012).

Thus, men who have committed sexual offences (some of these men would have a paraphilia) have elevated rates of psychological disorders (Ahlmeyer et al., 2003; Eher, Rettenberger, & Turner, 2019; Fazel et al., 2002). In addition, elevated rates of psychological disorders in paraphilic men compared to non-paraphilic men has been found in outpatient settings (e.g., Fagan, Wise, Derogatis, & Schmidt, 1988) as well as within the general population (e.g., Ahlers et al., 2011). However, this relationship is not always observed (e.g., Flynn, 2008).

The Possible Role of Anxiety

Some authors have suggested that social phobia and fear of rejection are frequent in males with sexual disorders (e.g. Glowyn & Sevlie, 1992), suggesting that social anxiety prevents the development of healthy social relations and opening the door to atypical sexual outlets. In line with this suggestion, Nunes et al. (2012) found, in a meta-analysis, that groups of sexual offenders against children were more socially anxious than other groups of men.

Kafka (1997) proposed that there is a strong relationship between the biological agents (monoamines) at play in anxiety disorders and those putatively involved in the paraphilias. Therefore, individuals who have a paraphilia would present with higher rates of anxiety than individuals without paraphilias. In line with the monoamine hypothesis, serotonin reuptake inhibitors have been shown to be beneficial in the management of sexual deviations and have been used in the treatment of paraphilias for many years (Assumpção, Garcia, Garcia, Bradford, Thibaut, 2014; Bradford, 2000; Bradford, 2001; Thibaut et al., 2010; Thibaut, 2012; Winder, et al., 2019).

Similarly, Balyk (1997) hypothesized that a hypersensitive alert system (i.e., a system

that becomes activated when one encounters danger) might be linked to paraphilias. According to Balyk, the fact that selective serotonin reuptake inhibitors (SSRI) can (putatively) reduce pedophilic cravings as well as anxiety, more specifically OCD, indicates that both disorders may be the result of a faulty serotonergic system. Further supporting this theory, a study by Bogaerts, Daalder, Vanheule, Desmet, and Leeuw (2008), found that a group of child molesters who met criteria for pedophilia had significantly more Obsessive Compulsive Personality Disorder diagnoses than the comparison group of non-paraphilic child molester. In the same vein, Coleman (1995) indicated that some individuals engage in compulsive sexual behaviours as a way to reduce anxiety.

These considerations lead me to think that there should be a close connection between the paraphilias and anxiety. This being said, none of these observations account for the large gender difference in paraphilic interests and paraphilic disorders. Here it is hypothesized that one possible explanation for this gender difference may involve how anxiety impacts sexual arousal.

Gender Differences and the Impact of Anxiety on Sexual Arousal

Some research suggests that anxiety potentiates sexual arousal in men and deters sexual arousal in women (Barlow, 1986; Cranston-Cuebas & Barlow, 1990). For example, Wolchik et al. (1980) presented emotion inducing videos (depression or anxiety) or a neutral video, followed by an erotic film, while men's penile responses were measured ($n = 14$). Greater sexual responses were observed when the erotic film clips were preceded by the anxiety provoking video compared to depression provoking or neutral videos. Barlow, Sakheim, and Beck (1983) also conducted a study in which penile response was measured while participants were presented with erotic films ($n = 12$), but in this case the anxiety manipulation occurred during the presentation of sexual stimuli. Participants were presented with erotic film clips under three

conditions signalled by a set of three lights. The first light indicated that they had 60% chance of receiving an electric shock; the second light indicated that they had a 60% chance of receiving a shock if their level of arousal was below the average participant's arousal at that time frame in the film clip; and that the third light had no meaning. Men had higher penile responses in the shock-threat (anxiety provoking) conditions than in the no-shock-threat condition; thus, once again anxiety had a facilitative effect on sexual arousal in men.

Brauer, ter Kuile, Janssen, and Laan (2007) induced pain-related fears in women while they were presented with erotic film clips. In the pain threat condition, the women were told prior to the film clip, that they had a 60% chance of receiving a painful stimulus on their ankle during the video. Two groups were compared: one with superficial dyspareunia ($n = 48$) and one with no sexual complaints ($n = 48$), on measures of genital response, skin conductance, and self-reported genital sensation. Pain related fears impeded sexual responses in both groups of women.

Brom, Laan, Everaerd, Spinhoven, and Both (2015) utilized an experimental designed involving differential conditioning with 31 women. Their study design consisted of presenting a conditioned stimulus (CS) followed by a painful shock (CS+), and another conditioned stimulus which was never followed by a shock (CS-). The protocol consisted of three phases: the Preconditioning Phase, during which the participants were presented with both CS+ and CS- neither followed by painful stimulation, the Acquisition Phase, during which the CS+ was always followed by the painful stimulation, and the Extinction Phase, where once again no painful stimulations were given. Two pictures of nude heterosexual couples engaging in sexual intercourse were utilized as the CSs. Vaginal photoplethysmography was the measure of genital sexual arousal. Their results indicated that the painful stimulation following the CS+ created a

conditioned response of decreased sexual arousal in women which was maintained in the Extinction Phase. It could be argued that the fear of the painful stimulation induced anxiety which resulted in the decreased sexual arousal. These results appear to be consistent with Brauer, ter Kuile, Janssen, and Laan's (2007) study suggesting that anxiety can decrease sexual arousal in women.

Therefore, it is possible that anxiety acts as a protective factor in the development of atypical sexual arousal in women, and as a risk factor in men. Paraphilic interests (e.g., sexual interest in children or in violence) can perhaps develop when anxious feelings are generated by exposure to unconventional sexual stimuli. Behaviours related to paraphilias are often stigmatized and considered morally unacceptable and illegal. Throughout history, paraphilic interests have been described as a disease (De Block & Adriaens, 2013), and some paraphilic behaviours are punishable by law (e.g., sex with children, exhibitionism). Paraphilic thoughts are thus likely to generate strong feelings of anxiety in most people. According to this new anxiety-sexual arousal hypothesis, when anxiety is elicited by an unconventional sexual stimulus, and when anxiety potentiates sexual arousal in men, paraphilic interests may develop. This would also suggest that the presence of anxiety disorders makes it more likely for paraphilias to develop. Because anxiety may potentiate sexual arousal in men and diminish sexual arousal in women, it follows that men (but not women) with paraphilic interests may be susceptible to anxiety disorders—an anxiety disorder would facilitate the hypothesized developmental process. If this is the case, men with paraphilic interest should have higher rates of anxiety than men without paraphilic interests. Furthermore, if anxiety facilitates the development of paraphilic interests, symptoms of anxiety (even if not diagnosed at the time) would need to be present at the time of puberty when sexual interests develop and become

more evident.

Anxiety Across Lifespan

There is evidence of continuity in anxiety throughout childhood and into adulthood (Copeland, Shanahan, Costello, & Angold, 2009; Orvaschel, Lewinsohn, & Seeley, 1995; Pine, Cohen, Gurley, Brook, & Ma, 1998). For example, Hayward et al. (2008) found stability in social anxiety symptoms over the course of high school in an adolescent population. Copeland, Angold, Shanahan, and Costello (2014) published data from the Great Smoky Mountain Study, a longitudinal study that was designed to examine the prevalence of common childhood psychiatric disorders. 1,420 participants were assessed at up to 11 time points between the ages of 9 and 26 years old. In regards to anxiety disorders, they reported higher odds for individuals who had a separation anxiety disorder in childhood to be diagnosed with another anxiety disorder in adulthood (e.g., agoraphobia, panic, generalized anxiety).

Furthermore, adults with an anxiety disorder have retrospectively reported having symptoms of anxiety as children (Isolan et al., 2005; Lipsitz et al., 1994; Otto et al., 2001; Shear, Jin, Ruscio, Walters, & Kessler, 2006). In a sample of 100 adult outpatients with a primary diagnosis of social phobia, Otto et al. (2001) found that 80% of their sample reported an onset of their social phobia before the age of 18. When childhood social phobia was excluded from their analyses, 54% of the sample met criteria for a different childhood anxiety disorder (e.g., overanxious disorder, avoidant disorder, separation anxiety disorder, and childhood agoraphobia).

Similarly, Isolan et al. (2005) compared three groups of adults; one diagnosed with social anxiety disorder ($n = 50$), one diagnosed with panic disorder ($n = 50$), and a control group ($n = 50$). Both groups diagnosed with an anxiety disorder were found to differ from the control group

with regards to childhood anxiety disorders (e.g., separation anxiety disorders, generalized anxiety disorder, avoidance disorder, and social anxiety disorder). Utilizing data from the National Comorbidity Survey Replication (NCS-R), a nationally representative survey of United States households, Shear, Jin, Ruscio, Walters, and Kessler (2006) found that 36% of participants who reported a diagnosis of adult separation anxiety disorder retrospectively reported childhood separation anxiety as well.

In addition, research on the genetic epidemiology support a genetic link to anxiety (Hettema, Neale, & Kendler, 2001; Vasey & Dadds, 2001). Hettema et al. (2001) conducted a meta-analysis looking at family and twin studies of panic disorder, generalized anxiety disorder, phobias, and obsessive compulsive disorder. They concluded that all four of these anxiety disorders tend to aggregate within families and that a source of familial risk is genetic.

This would suggest that anxiety disorders, even if diagnosed in adulthood, can be an indication of past experiences of anxiety (e.g., shyness, separation). Therefore, anxiety disorders diagnosed in adulthood can be used as indicators of anxiety in childhood and adolescence.

Dissertation Objective

The objective of this dissertation is to further our understanding of the paraphilias by examining whether or not there is a link between paraphilias and anxiety in men. Chapter 2 of this dissertation will consist of a meta-analysis examining the link between paraphilias and mental health, including anxiety. Chapter 3 will be a large-scale psychiatric file review to further investigate the link between paraphilias and psychological disorders, including anxiety disorders. The main hypothesis tested is that men diagnosed with paraphilias are more likely than men without such a diagnosis to also be diagnosed with an anxiety disorder.

CHAPTER 2

The Paraphilias, Anxiety, and Psychological Disorders: A Meta-Analysis

As discussed in Chapter 1, some of the etiological theories of paraphilias suggest a link with psychological disorders. More specifically, the anxiety-sexual arousal hypothesis suggests a relationship between paraphilias and anxiety disorders. In order to further investigate the validity of this novel hypothesis, in this chapter, I summarize the literature using meta-analysis to determine the size of the relationship, if there is one, between the paraphilias and anxiety, using forensic, clinical, and community samples, and using appropriate comparison groups.

Methodological Considerations

Many studies addressing the relationship between paraphilias and psychological disorders have methodological concerns, including how paraphilias are defined, the choice of comparison groups, and sample size. For example, if authors accept individuals who have only engaged in an atypical sexual behaviour as part of their paraphilia group, conclusions cannot be made for individuals with paraphilias as commonly defined – the act of engaging in the behaviour does not necessarily signify a sexual interest. Non-equivalent comparison groups can be particularly problematic: There are high rates of psychological disorders in the offender population (Fazel, Hayes, Bartellas, Clerici, & Trestman, 2016), and when paraphilic offenders are compared to non-offender groups any difference observed could be due to many factors other than paraphilia. Furthermore, many studies have small sample sizes, which can lead to low statistical power if the group difference is small.

Objectives

The objective of this meta-analysis was to determine the size of the relationship between paraphilias and anxiety, using appropriate comparison groups. This question was examined by looking at different types of populations (e.g., forensic, general), different types of paraphilias, and different types of psychological disorders. It was hypothesized that individuals with a

paraphilic interest or disorder will have higher odds of also having an anxiety disorder compared to individuals without paraphilic interests. Since anxiety is suggested to facilitate the development of paraphilic interests, if the anxiety-sexual arousal hypothesis is accurate, this relationship should be higher for anxiety disorders than other psychological disorders.

Method

The systematic review protocol was developed using the PRISMA-P guidelines (Moher et al., 2015) as well as the Cochrane Handbook of Systematic Reviews of Intervention (Higgins & Green, 2011).

Eligibility Criteria

Included study had to meet the following criteria in order to be included in the meta-analysis: 1) Published before March 1, 2017, the end of study collection; 2) equivalent comparison groups in regards to population type and setting (same point of entry); 3) minimum of 10 participants in each group; 4) participants aged 18 and over (if a study includes participants over and under 18 years of age, the mean age of the group had to be at least 18); 5) no restrictions on the type of setting in which the study took place; community, clinical, and incarcerated samples were included, but the comparison group had to be from the same setting as the target group; 6) examined the relationship between at least one paraphilia and at least one other psychological disorder; 7) measured psychological disorders through psychometric tests, behavioural measures, structured clinical interviews, and self-reports; 8) written in English or French; 9) unpublished studies were included if they met all other criteria.

Sources and Search Strategy

Studies were identified using electronic databases (*Psych Info, Medline, Web of Science, PubMed, Scopus, CINAHL*, and, *Érudit*), as well as by examining the reference list of relevant

articles. The grey literature was searched using two online databases specialized in this type of literature: *Open Access Theses and Dissertations* and *Proquest Dissertation and Thesis*.

The databases were searched using the key words in Appendix A. The date that each database was searched was recorded and keywords were adapted appropriately for each database in order to take into consideration the differences in syntax rules (e.g., asterisks for truncations). An Excel document was created in order to keep track of the specific search strategy for each database. The date of the search, the keywords used, the number of articles found, and the number of duplicates that were removed was all recorded in this document.

Article Selection Process

The title, citation, and abstract of all the articles retrieved during the search were exported into Endnote for all databases. Duplicates were removed and an initial screening of the remaining 24,789 articles took place in order to identify relevant studies.

Stage 1 screening. Two groups were created in Endnote under the stage 1 header: *MAYBE* and *NO*. All the articles were screened, by the primary author, according to their title and filed in one of the two groups. If the subject of the paper was not clear from the title, a quick scan of the abstract was conducted. The inclusion criteria were very broad: Any titles with reference to paraphilias or sex offenders were kept. Articles were only excluded if the subject was completely irrelevant (e.g., sleep disorder studies), if they were studies of victims of sexual offending, or if they discussed psychological disorders with no mention of paraphilias or sex offenders. Of the 24,789 initial articles, 20,204 were eliminated in stage 1, leaving 4,585 articles for stage 2. A flow chart based on Moher, Liberati, Tetzlaff, Altman, and Group (2009) depicting each elimination stage can be found in Appendix B.

Stage 2 screening. Stage 2 consisted of screening the abstract of the remaining articles.

Eight categories were created in Endnote under the Stage 2 header. Seven consisted of eliminated references (*NO*) and one *MAYBE* category. Multiple categories were utilized in order to keep track of the reason for elimination: 1) literature reviews; 2) case studies or under 10 participants; 3) non-equivalent comparison group or no comparison group; 4) no evaluation of paraphilias or other psychological disorder; 5) no participant (e.g., theoretical articles); 6) participants under 18 years old; 7) other (e.g., catalogues of abstracts from conferences, missing information, victim studies).

Once again, if the information from the abstract did not allow for proper classification of the reference, the article was retrieved and scanned. An example of this is regarding the age of the participants in adolescent studies; those are often not indicated in the abstract therefore the articles were retrieved to confirm the age of the participants.

The primary author screened the abstracts, and of the remaining 4,585 articles, 4,282 were eliminated and 303 moved on to the third and final screening stage.

Stage 3 screening. In stage 3, full text articles were assessed for their eligibility to be included in the systematic review. The 303 articles were screened and categorized in three categories: *YES*, *MAYBE*, and *NO*. The *MAYBE* category included articles for which the author(s) should be contacted (e.g., data relevant to the review had been collected but not reported). The elimination criteria from the previous stages were utilized. Three reviewers (the author, the thesis supervisor, and a trained volunteer) conducted the final stage, two reviewers screened each article and uncertainties were resolved through discussion. The filing system within Endnote continued to be utilized in order to keep track of the categorization of each article. Of the remaining 303 articles that were screened, 199 were categorized as *NO* on the basis of the elimination criteria; 34 articles were classified as *YES*; and 70 fell within the *MAYBE*

category. Of the 70 *MAYBE* articles, overlapping samples and authors were grouped, which left 35 authors to contact. Of the 35 authors, some could not be contacted ($n = 8$) due to death or no available contact information; five responded and provided the appropriate data; ten did not reply to the e-mail, and 12 no longer had access to the data or their data was not usable. Eight of the 70 *MAYBE* articles could then be included in the *YES* group. One additional article, found incidentally through a separate search of the literature, met the criteria and was added to the meta-analysis. In the event of partial or complete overlap of studies (e.g., published and unpublished versions of the same study, same dataset used for multiple published studies), samples were determined to be overlapping and deemed to be part of the same project. If the participants came from the same location and the data was collected within the same timeframe they were deemed to be overlapping. The sample with the largest sample size was utilized. The 43 selected articles were then grouped according to their overlapping samples, leaving a total of 29 independent articles to code for the meta-analysis.

Coding Procedure

Relevant data were extracted from every article that made it through the screening process. A *general statistics form* and *variable coding form* (Appendix C and Appendix D) were utilized to extract data from the articles. Furthermore, a coding manual was created in order to guide the data collection process. If all necessary data were not available, the original researcher was contacted. Buscemi, Hartling, Vandermeer, Tjosvold, and Klassen (2006) observed that independent data extraction by two researchers resulted in fewer errors than a data extraction by a single researcher followed by the verification of a second. Therefore, two independent reviewers coded each article and compared results in order to minimize errors. The author coded all articles and two collaborators each coded half, in order for each article to be double coded.

Data items. The present meta-analysis review looked at two main variables: paraphilia and other psychological disorders. The number of participants (n), the average (\bar{x}) for each measure used, the standard deviation (SD), as well as percentages and frequencies for relevant measures were collected from each study. The psychological disorders (excluding paraphilias) were grouped to create major mental health categories: anxiety disorders (e.g., generalized anxiety disorder, specific phobia, social phobia, obsessive-compulsive disorder), mood disorders (e.g., depression, bipolar, dysthymia), psychotic disorders (e.g., schizophrenia), substance use disorders (e.g., alcohol, drugs), childhood disorders (e.g., attention deficit hyperactivity disorder, conduct disorder, intellectual disability), personality disorders (e.g., antisocial personality disorder, borderline personality disorder), and psychopathy. Specific subcategories of disorders (e.g., obsessive-compulsive disorder) were not created because most articles grouped disorders within major categories (e.g., anxiety, mood) and not enough data would have been available to look at more specific disorders. Specific subgroups of paraphilias (pedophilia and sadism) were also created when possible.

Because most of the studies included in this meta-analysis used previous versions of the DSM, different terminologies were accepted. How each author operationalized the term paraphilia or paraphilic disorder was taken into consideration. When the term was used to describe a sexual interest, the data was used in the meta-analysis; therefore it was not necessary for it to be a paraphilic disorder. Limiting the definition to paraphilic disorder would also have greatly limited the number of articles that could be included. In the following, I refer to individuals with a paraphilia and I mean individuals diagnosed as such or individuals with a paraphilic interest.

Inter-Rater Reliability

All 29 studies were double coded by the authors. Inter-rater reliability analyses were conducted on descriptive as well as the mental health variables. Cohen's Kappa, an index that takes into account the possibility of agreement occurring by chance, was used for categorical variables. Kappas can range from -1 to 1, where 1 indicates complete agreement, 0 represents what would be expected by chance, and anything below that would be worse than chance (McHugh, 2012). Cohen (1960) suggested the following interpretation: < 0 = no agreement, $0.01 - 0.20$ = none to slight, $0.21 - 0.40$ = fair, $0.41 - 0.60$ = moderate, $0.61 - 0.80$ = substantial, and $0.81 - 1.00$ = almost perfect. For the categorical descriptive variables, Cohen's Kappa ranged from 0.71 to 1.00, with an average of 0.93. Kappas could not be calculated for variables where both raters agreed on the same answer for every case, therefore the average is an underestimate of the overall agreement between raters.

Inter-rater reliability for continuous variables was analyzed using intraclass correlations (ICC). Results can range from 0 to 1, where 0 represents no agreement and 1 complete agreement. The suggested interpretation is the following: less than 0.50 = poor, $0.50 - 0.75$ = moderate, $0.75 - 0.90$ = good, and above 0.90 = excellent (Koo & Li, 2016). For the descriptive variables that were continuous, the ICC were all $r = 1.00$, 95% CI [1.00, 1.00]. The mental health variables were grouped into major mental health categories (e.g., anxiety, mood, personality disorders), and ICC's ranged from 0.84, 95% CI [0.63, 0.93] to 1.00, 95% CI [1.00, 1.00].

Analytical Strategy

Effect sizes. Odds Ratio (OR) was the measure of effect size used for this meta-analysis; that is, the odds of psychological disorders, given a paraphilia, compared to the odds of psychological disorders, given no paraphilia. For the 2 x 2 tables, 0.5 was added when there was

one value of 0 in the table. In the current study, an OR above 1.0 indicated that individuals with a paraphilia have higher odds of having a psychological disorder than individuals without a paraphilia. The studies' effect sizes were analyzed with fixed effects meta-analysis using the Comprehensive Meta-Analysis software (Borenstein, Hedges, Higgins, & Rothstein, 2009), because all analyses included fewer than 30 studies—the between study variability becomes imprecise when a random effect is used with a small number of studies (Schulze, 2007). The weight of each study was assigned according to the inverse variance of the study (Borenstein et al., 2009).

Heterogeneity in effect sizes. In order to determine the source of variation in effect sizes across studies, measures of heterogeneity were used: Cochran's Q and I^2 (Borenstein et al., 2009). Cochran's Q describes the level of variability across studies that is caused by factors other than sampling error. The effect size of each study is subtracted from the overall mean effect size. The difference is then squared and the squared differences are summed. If the sum of the squared differences is higher than expected under the null hypothesis, then heterogeneity is likely present. In other words, a significant Q ($p < 0.05$) indicates significantly more variability across studies than would be expected by chance.

As described in Borenstein et al. (2009), I^2 provides the proportion of Q that is expected from sampling error. It ranges from 0 to 100; with 0 indicating that 0% of the observed variance is due to sampling error. The higher the number, the more the variance between the studies is beyond what would be expected by sampling error. Suggested interpretation is the following: 25% = low heterogeneity, 50% = moderate heterogeneity, and 75% = high heterogeneity (Higgins & Thompson, 2002).

Publication bias. A publication bias is the tendency for studies reporting a significant

finding or higher effect sizes to be published over nonsignificant or small effect results. In order to alleviate some of this bias, databases that provide access to unpublished thesis and papers were also searched. In the final included studies for the meta-analysis, 86% ($k = 25$) were published and the remaining 14% ($k = 4$) were unpublished studies. Publication bias was assessed with a funnel plot, as described in Borenstein et al. (2009).

Planned analyses. The analyses for the meta-analysis consisted of comparing individuals with a paraphilia to individuals without a paraphilia on the different categories of psychological disorders. More specifically the categories of anxiety disorders, mood disorders, psychotic disorders, substance use disorders, childhood disorders, personality disorders, psychopathy, and a category combining all disorders (any disorders). Due to the limited number of studies looking at specific paraphilias, only sadism and pedophilia could be looked at individually. Analyses looking at self-reported measures vs. clinician diagnoses as well as forensic/inpatient vs. general population/outpatient were also conducted.

Results

Included Studies

Thirty-three non-overlapping samples, from 29 individual studies published between 1986 and 2016, were included in this meta-analysis. Table 2.1 provides descriptive information for each included study. Sample sizes for the paraphilic groups ranged from 10 to 678, with a total of 2,788 paraphilic individuals. The non-paraphilic group sizes ranged from 10 to 313, with a total of 2,189 non-paraphilic individuals. The mean age of the participants ranged from 24.5 ($SD = 5.5$) to 57.5 ($SD = 10.1$), with a weighted mean age of 39.2 ($WSD = 13.6$). Only one study included females, but was still included because of the low percentage (1.6%; $n = 3$). Six samples were classified as stemming from an incarceration setting (18.2%), 9 from a forensic

hospital setting (27.3%), 6 from other hospital units (18.2%), 4 from the general population (12.1%), and 8 from other or unknown sources (24.2%). Percentages add up to more than 100% because some studies obtained their samples from various sources.

Recruitment for the studies was done in-person (17.2%), with printed advertisements (6.9%), without contact with participants (e.g., surveys or file reviews, 51.7%), or from other sources or was unknown (24.1%). Most studies were conducted in the USA (48.3%), Canada (17.2%), and Germany (13.8%). Most studies used sex offenders (51.1%), 11.1% had other types of offenders, 22.2% had both types of offenders, 2.2% had non-offender samples, and 13.3% had unknown criminal status.

Is the Presence of a Paraphilia Related to Greater Odds of Having an Anxiety Disorder?

Individuals with a paraphilia had 1.38, 95% CI [1.12, 1.71] higher odds of having an anxiety disorder than individuals without a paraphilia. The variability across studies for this analysis was not significant ($Q = 11.70$, $df = 15$, $p = 0.702$) and small ($I^2 = < 0.0001$). Indicating that less than 1% of the observed variability was beyond what would be expected by sampling error. This analysis included both clinician diagnosis and self-reported measures of anxiety.

The forest plot in Figure 2.1 provides an illustration of the variations in ORs for studies included in this analysis looking at the relationship between any paraphilias and anxiety disorders. The studies are shown in increasing order of ORs. Some variability is noticeable from study to study and the studies at both extremities have very large 95% CI.

The funnel plot in Figure 2.2 provides information regarding publication bias for the studies included in the any paraphilias and anxiety analysis. It shows effect sizes on the X axis and standard errors on the Y axis for the anxiety disorders category. In Figure 2.2 most of the studies are gathered toward the top of the plot, where the standard error is lower. Four studies

fall lower on the plot, with two on each side of the center line. Both published and unpublished studies were included in the graph. The Unpublished studies—Casey (2008), Mendola (1998), and Rickert (2013)—are within the top cluster, falling within the right side of the graph with Odds ratios above 1. The symmetry within the graph indicates a low likelihood of publication bias.

Is This Relationship Specific to Anxiety Disorders?

Figure 2.3 shows the odds ratio for the major sub-categories of psychological disorders, again comparing individuals with a paraphilia and individuals without. The results show variation between mental health categories, but for many categories there is a relative elevation of psychological disorders for individuals with a paraphilia. For example, individuals with a paraphilia had 1.89 greater odds, 95% CI [1.40, 2.55], than individuals without a paraphilia to have a disorder diagnosed in childhood. The variability across studies was not significant ($Q = 8.91$, $df = 6$, $p = 0.179$) and was moderate ($I^2 = 32.66$), indicating that about 33% of the observed variability was beyond what would be expected by chance for this category of psychological disorder. Odds ratios for mood disorders, personality disorders, and psychopathy were also above 1.0, although the 95% CI sometimes included 1.0. Substance disorders and psychotic disorders had odds ratios falling below 1.0, indicating that the odds are lower for individuals with a paraphilia to have these disorders compared to individuals without a paraphilia. These results, overall, indicate that paraphilias are not specifically related to anxiety and suggest variation in the disorders that are linked to paraphilias.

The general meta-analysis results that included every study ($k = 28$; in one study all participants had a mental health diagnosis and could therefore not be included in the overall analysis) confirm this general relationship with psychological disorders. Participants with a

paraphilia had 1.11 greater odds, 95% CI [1.04, 1.19], of also having any psychological disorder than participants without a paraphilia (or paraphilic interest). The variability across studies was significant ($Q = 117.91$, $df = 31$, $p = < 0.0001$) and was moderate ($I^2 = 73.71$).

The forest plot in Figure 2.4 provides an illustration of the variations in ORs for any psychological disorders, which are shown in increasing order. Some variability is noticeable from study to study. The three studies with the lowest ORs (lower rates of mental disorders among paraphilic individuals) had very large 95% CI. Excluding these three studies with larger standard errors did not change the overall results.

The funnel plot in Figure 2.5 provides information regarding publication bias of all included studies. It shows effect sizes on the X axis and standard errors on the Y axis for the any psychological disorders category. Once again, symmetry in the graph corresponds to lower chances of publication bias. In Figure 2.5 most of the studies are gathered toward the top of the plot, where the standard error is lower. The studies seem equally divided on both sides of the plot, with the three outliers in the bottom left quadrant. Both published and unpublished studies were included in the graph. The unpublished studies—Casey (2008), Flynn (2008), Mendola (1998), and Rickert (2013)—are within the top cluster, with two studies having Odds ratios below 1 (Flynn, 2008; Rickert, 2013) and two falling within the right side of the graph with Odds ratios above 1 (Casey, 2008; Mendola, 1998). The three outliers—Kafka and Hennen (2002), Woodworth et al. (2013), and McLawsen, Scalora, and Darroe (2012)—had negative log ORs, indicating that fewer individuals with a paraphilia had psychological disorders compared to individuals without a paraphilia; those are the same studies with very large 95% CI. Thus, if there is a publication bias, it is against the relationship hypothesized in this study where individuals with a paraphilia would have more psychological disorders than individuals without

(positive log OR).

Does the Relationship Between Paraphilias and Mental Health Vary According to the Different Types of Paraphilias?

Because of the small number of studies looking at specific paraphilias, only sadism and pedophilia could be looked at separately, and only for certain mental health categories. Figure 2.6 shows that individuals with sadism or pedophilia have greater odds of also having any psychological disorders than individuals without a paraphilia; although the 95% CI includes 1.0 in both cases (sadism: OR = 1.28, 95% CI [0.93, 1.76], pedophilia: OR = 1.08, 95% CI [0.98, 1.18]). The variability across studies for sadism approached significance ($Q = 05.25$, $df = 2$, $p = 0.073$) and was moderate ($I^2 = 61.88$). For pedophilia, the variability across studies reached significance ($Q = 51.85$, $df = 11$, $p = <0.0001$) and was large ($I^2 = 78.79$).

The results also indicate that individuals with pedophilia have lesser odds of having substance disorders (OR = 0.68, 95% CI [0.48, 0.94]; $Q = 6.37$, $df = 5$, $p = 0.272$; $I^2 = 21.47$) and (non-significantly) psychopathy (OR = 0.78, 95% CI [0.52, 1.18]; $Q = 13.92$, $df = 4$, $p = 0.008$; $I^2 = 71.26$) than individuals without a paraphilia. Anxiety disorder, mood disorders, as well as personality disorders all had odds ratios above 1.0 for the pedophilia group (although the 95% CIs sometimes include 1.0). When paraphilia categories are compared, slight variation is noticeable in the psychological disorders that are related to them; for example, the odds of having psychopathy are higher for individuals with sadism, and lower for the individuals with pedophilia.

Does the Relationship Between Paraphilias and Psychological Disorders Vary According to the Type of Measures Used to Assess Psychological Disorders?

Figure 2.7 compares the odds ratio for the studies that collected information on mental

health with self-reported measures to the ones who utilized a clinician diagnosis. Paraphilic individuals who self-reported their mental health had 1.14 higher odds, 95% CI [1.05, 1.22], of having any psychological disorder than individuals who did not have a paraphilia. The variability across studies reached significance ($Q = 39.84$, $df = 11$, $p = <0.0001$) and was large ($I^2 = 72.39$). Comparatively, paraphilic individuals who' mental health were diagnosed by a clinician had 1.04 higher odds, 95% CI [0.91, 1.18] ($Q = 80.47$, $df = 19$, $p = <0.0001$; $I^2 = 76.39$) of also having any psychological disorder than the non-paraphilic individuals. Similarly, looking specifically at anxiety disorders, both self-report (OR = 1.42, 95% CI [1.90, 1.84]; $Q = 2.99$, $df = 4$, $p = 0.55$; $I^2 = <0.0001$) and clinician diagnosis (OR = 1.31, 95% CI [0.90, 1.90]; $Q = 8.58$, $df = 10$, $p = 0.57$; $I^2 = <0.0001$) indicate higher odds for individuals with a paraphilia to have an anxiety disorder than individuals without a paraphilia.

Some variation is noticeable between self-report and clinician diagnosis for Psychotic disorders as well as Personality disorders. In both cases the self-report of individuals with a paraphilia indicated higher odds for them to have these disorders than individuals without paraphilias (Psychotic disorder self-report: OR = 1.18, 95% CI [0.90, 1.54]; $Q = 3.91$, $df = 3$, $p = 0.27$; $I^2 = 23.30$; Personality disorders self-report: OR = 1.11, 95% CI [1.00, 1.23]; $Q = 18.49$, $df = 3$, $p = <0.0001$; $I^2 = 83.77$). Oppositely, when these disorders (Psychotic disorders and Personality disorders) were diagnosed by a clinician, individuals with a paraphilia had less odds than individuals without a paraphilia to also be diagnosed with these two disorders (Psychotic disorder clinician diagnosis: OR = 0.46, 95% CI [0.29, 0.74]; $Q = 13.44$, $df = 5$, $p = 0.02$; $I^2 = 62.81$; Personality disorders clinician diagnosis: OR = 0.93, 95% CI [0.76, 1.14]; $Q = 50.05$, $df = 9$, $p = 0.00$; $I^2 = 82.02$). These results suggest that depending on the psychological disorders assessed, there are some variations between individuals with a paraphilia and individuals without

regarding self-reported symptoms of comorbid disorders compared to disorders diagnosed by a clinician.

Is the Relationship Between Paraphilias and Psychological Disorders Present for Different Types of Populations?

Figure 2.8 compares the odds ratios for the different types of populations studied. Two categories were created depending on where the population of each study was recruited: forensic/inpatient and general population/outpatient. Overall, paraphilic individuals within a forensic/inpatient setting had 1.10 higher odds, 95% CI [1.02, 1.17] ($Q = 108.96$, $df = 26$, $p = <0.0001$; $I^2 = 76.14$), of also having any psychological disorder than the non-paraphilic individuals. Comparatively, individuals from the general population/outpatient clinics who have a paraphilia had 1.59 higher odds, 95% CI [1.15, 2.20] ($Q = 3.58$, $df = 4$, $p = 0.47$; $I^2 = <0.0001$), of also having any psychological disorder than individuals who did not have a paraphilia. Thus, in both cases individuals with paraphilias had higher odds of having psychological disorders than individuals without paraphilias.

Looking at specific disorders such as anxiety, similar results are obtained. Paraphilic individuals within a forensic/inpatient setting had 1.44 higher odds, 95% CI [1.15, 1.80] ($Q = 10.53$, $df = 12$, $p = <0.57$; $I^2 = <0.0001$), of also having an anxiety disorder than the non-paraphilic individuals. Comparatively, individuals from the general population/outpatient clinics who have a paraphilia had 1.02 higher odds, 95% CI [0.54, 1.89] ($Q = 0.11$, $df = 2$, $p = 0.95$; $I^2 = <0.0001$), of also having an anxiety disorder than individuals who did not have a paraphilia.

Discussion

The objective of the meta-analysis was to explore the relationship between paraphilias and psychological disorders, more specifically anxiety disorders. It was hypothesized that

individuals with a paraphilic interest or disorder would have higher odds of also having an anxiety disorder compared to individuals without paraphilic interests. The results indicate, indeed, that men with paraphilias have higher odds of having anxiety disorders than men without paraphilias. However, other psychological disorders were also positively related to paraphilias. For certain disorders, however, such as substance use and psychotic disorders, the odds of having these disorders were lesser for individuals with a paraphilia.

Anxiety disorders along with disorders diagnosed in childhood had the most consistent relationship with paraphilias. The anxiety results are consistent with the anxiety-sexual arousal hypothesis, and the disorders diagnosed in childhood could imply a continuity of psychological disorders that would have begun in childhood at the time of puberty. This provides support for the anxiety-sexual arousal theory presented in the introductory chapter. The fact that other disorders are also related to paraphilias indicates that other explanations for the development of paraphilias are likely, including general comorbidity. I will discuss other explanations for the association between paraphilias and psychological disorders in the General Discussion.

There was some consistency with regards to the source of information when looking at the any disorders category. For both self-reported and clinician diagnosis, individuals with paraphilias had more psychological disorders overall than individuals without paraphilias. However, some variation was present when looking at specific disorders. The self-reported measures indicate that individuals with a paraphilia have higher odds of having both Psychotic and Personality disorders than individuals without, as opposed to the clinician diagnosis, which indicates that individuals with a paraphilia have less odds of having either of those diagnoses than individuals without a paraphilia. It could be hypothesised that individuals with a paraphilic interest report more psychotic symptoms in an attempt to explain or justify their deviant sexual

behaviours. Similarly with the Personality disorders, it could be hypothesised that an individual with a paraphilia might believe that there is something “wrong” with their personality and therefore endorse more symptoms related to such.

When looking at the different populations (forensic vs. general population), consistency is observed once again. Individuals with a paraphilia have higher odds of having a psychological disorder than individuals without regardless of the setting in which they are studied. This consistency provides a strong argument for the general relationship between paraphilias and psychological disorders.

Limitations

The results of the meta-analysis are limited to the studies that are included within it. In this regard language requirement (only studies written in English or French were included) must be considered, as well as the publication bias (previously discussed), small sample sizes, and varying methods of evaluating mental health. Additionally, over one third of the studies included (38%) looked at pedophilia specifically, and not all subtypes of paraphilias were equally represented; therefore, the results may not be generalizable to all paraphilias.

Studies were published between 1986 and 2016. During this period the definition of paraphilia and paraphilic disorder has evolved. Therefore, how each study operationalized the term paraphilia might have varied. Additionally, how paraphilias were assessed varied as well (e.g., clinical interviews, diagnostic evaluations, file reviews). In order to mitigate these limitations, the definition of paraphilia utilized by the authors had to include the component of sexual attraction. Therefore, studies where authors categorized individuals based on behaviour alone were not included. Although studies looking at paraphilias (not just paraphilic disorders) were included, the majority of the studies were consistent with the definition of paraphilic

disorders. The distress criterion within this definition implies a correlation with psychological disorders. Having only a paraphilias, and not a paraphilic disorder, may or may not be correlated with psychological disorders. It is therefore cautioned to generalize these results to paraphilias in general.

Also, the timeline of development could not be assessed. Consequently, I could not tell which of paraphilias or psychological disorders came first. Without the developmental sequence it is impossible to indicate which disorder could be linked to the development of the other. If the paraphilias develop first, the implications are different than if the psychological disorders develop first.

Furthermore, the large heterogeneity between studies indicates that the relationship between paraphilias and mental health might vary depending on other factors that have not been investigated in this meta-analysis.

Lastly, there are significant limitations in the current state of research regarding women and paraphilias. Only one study in the sample included women and the number was minimal ($n = 3$). This significant gap in the literature limits our knowledge on the gender differences regarding paraphilias and subsequently prevents me from testing an important part of the anxiety-sexual arousal hypothesis regarding the effects of anxiety on sexual arousal in the development of paraphilias in women. For this hypothesis to be fully corroborated there would need to be no association, or an inverse association, between anxiety disorders and paraphilias in women. Due to the limited number of women included in these samples it was not possible to determine the nature of this association.

Conclusion

Although these results corroborate part of the anxiety-sexual arousal hypothesis, the

generalized relationship with many other psychological disorders indicates that anxiety might not play as significant a role in the development of paraphilias as suggested by the hypothesis. That being said, due to the limitations associated with this meta-analysis, including small sample sizes, large heterogeneity, and varying results, it is unclear where anxiety stands within this relationship. How these results fit with the other models discussed in the introduction chapter (e.g., Kafka's monoamine model, and Balyk's OCD model) will be elaborated on in the General Discussion Chapter. A larger sample size that utilized a consistent method of evaluating paraphilias and psychological disorders would help in further clarifying the relationship between paraphilias and anxiety, as well as the relationship between paraphilias and other psychological disorders. Chapter 3 of this dissertation will examine the relationship between paraphilias and anxiety utilizing a large sample size. Furthermore, in chapter 3, I will look at the different subtypes of paraphilias and how they relate to mental health, and anxiety more specifically.

Table 2.1: Descriptive information on included studies

Study	Country	N		Type of participant		Paraphilia type*	Mean age (SD) Range	Location / setting	Psychological Disorders Assessed
		Paraphilic	Non-paraphilic	Paraphilic	Non-paraphilic				
Ahlers et al. (2011)	Germany	148	274	Male General Population	Male General Population	Mixed paraphilias ¹ : <i>Fetishism</i> <i>Transvestic Fet.</i> <i>Masochism</i> <i>Sadism</i> <i>Voyeurism</i> <i>Exhibitionism</i> <i>Frotteurism</i> <i>Pedophilia</i> <i>Other paraphilias</i>	57.51 (10.14) 40 – 79	General Population	General Psychological Distress ¹ (GSI)
Blanchard et al. (1999)	Canada	678	313	Male Sex-Offenders (against children only)	Male Sex-Offenders (against women 16+)	Pedophilia ²	33.29 (12.46)	Psychiatric Hospital – Sexual Behaviours Unit	Intellectual Disability ²
Bogaerts, Daalder, Vanheule, Desmet, and Leeuw (2008)	Belgium	36	34	Male Sex-Offenders (against children)	Male Sex-Offenders (against children)	Pedophilia ²	33 (9.32) ³ 22 – 62 ³	Prison / Training Program (alternative sanction)	Personality Dx ¹
Briken, Habermann, Kafka, Berner, and Hill (2006)	Germany	85	76	Male Sex-Offenders (sexual murderers)	Male Sex-Offenders (sexual murderers)	Mixed paraphilias ² : <i>Exhibitionism</i> <i>Voyeurism</i> <i>Sadism</i> <i>Masochism</i> <i>Fetishism</i> <i>Transvestic Fet.</i> <i>Pedophilia</i> <i>Paraphilia NOS</i>	25.84 (7.88)	Forensic Hospital	Enuresis/encopresis ² Indication for Attention Deficit Hyperactivity Dx Psychopathy ² Alcohol ²

Carlstedt et al. (2005)	Sweden	70	103	Male (98.4%) and Female (1.6%) Sex-Offenders (against children)	Male (98.4%) and Female (1.6%) Sex-Offenders (against children)	Pedophilia ²	Unknown Range: 15-75 Median: 37	Forensic Hospital	Mixed Mental Health ² : Mood ² Anxiety ² Psychotic ² Substance abuse ² Personality Dx ² Child onset Dx ²
Casey (2008)	USA	36	71	Male Sex-Offenders (against children)	Male Sex-Offenders (against children)	Pedophilia ²	41.89 (9.76) 19 – 67	Treatment program (offenders on parole)	Any Mood ¹ Major Depression ¹ Bipolar ¹ Cyclotomania ¹ Substance ¹ Any Anxiety ¹ GAD ¹ Panic ¹ Social Phobia ¹ Phobia ¹ OCD ¹ PTSD ¹ Eating Dx ¹ Impulse Control Dx ¹ Personality Dx ¹
Dunsieth et al. (2004)	USA	84	26	Male Sex-Offenders	Male Sex-Offenders	Mixed paraphilias ² : <i>Frotteurism</i> <i>Voyeurism</i> <i>Exhibitionism</i> <i>Fetishism</i> <i>Transvestic Fet.</i>	35.3 (10.4) 18 – 66	Treatment program (offenders on parole)	Any Mood ² Major Depression ² Bipolar ² Cyclotomania ² Substance ² Alcohol ² Drug ² Any Anxiety ² Generalized Anxiety Dx ²

						<i>Pedophilia</i> <i>Sadism</i> <i>Masochism</i> <i>Paraphilia NOS</i>			Panic ² Social Phobia ² Phobia ² Obsessive Compulsive Dx ² Post Traumatic Stress Dx ² Eating ² Impulse Control ² Sexual Dx NOS ² All Personality Dx separately ²
Eher, Neuwirth, Fruehwald, and Frottier (2003)	Austria	75	22	Male Sex- Offenders (against children and rapists)	Male Sex- Offenders (rapists)	Mixed paraphilias ² : <i>Voyeurism</i> <i>Exhibitionism</i> <i>Fetishism</i> <i>Transvestic Fet.</i> <i>Sadism</i> <i>Masochism</i> <i>Paraphilia NOS</i> Pedophilia ²	37.31 (11.55)	Prison	Affective Dx ² Major Depression ² Bipolar ² Dysthymia ² Anxiety ² Substance ² Alcohol ² All Personality Dx separately ² and clusters ²
Fagan et al. (1988)	USA	21	45	Male Outpatient (sexual behaviours clinic)	Male Outpatient (in vitro fertilizatio n clinic)	Trans. Fet. ²	36.74 (7.08)	Psychiatric Hospital	Mood ² Adjustment ² Generalized Anxiety Dx ² Psychosexual Dx ² Alcohol abuse ²
Flynn (2008)	USA	360	129	Male Sex- Offenders	Male Sex- Offenders	Mixed paraphilias ² : <i>Pedophilia</i> <i>Sadism</i> <i>Paraphilia NOS</i>	40.94 (12.40) 17 – 82	Prison	Antisocial Personality Dx ²

Hildebrand, de Ruiter, and de Vogel (2004)	Netherlands	40	54	Male Sex-Offenders	Male Sex-Offenders	Mixed paraphilias ² : <i>Exhibitionism</i> <i>Sadism</i> <i>Pedophilia</i> <i>And others not specified</i>	24.5 (5.5) 18 – 44	Forensic Hospital	Psychopathy ²
Hoyer, Kunst, and Schmidt (2001)	Germany	42	30	Male Sex-Offenders	Male Non Sex-Offenders	Mixed paraphilias ² : <i>Sadism</i> <i>Pedophilia</i>	33.54 (8.72)	Forensic Hospital	Social anxiety ¹
Hucker et al. (1986)	Canada	39	14	Male Sex-Offenders	Male Non Sex-Offenders	Pedophilia ²	35.38 (14.01)	Forensic Hospital	Alcohol ¹
Kafka and Hennen (2002)	USA	88	32	Male Outpatient	Male Outpatient	Mixed paraphilias ² : <i>Frotteurism</i> <i>Voyeurism</i> <i>Exhibitionism</i> <i>Fetishism</i> <i>Transvestic Fet.</i> <i>Pedophilia</i> <i>Sadism</i> <i>Masochism</i> <i>Paraphilia NOS</i>	37.10 (9.5) 17 – 65	Private Clinic (General pop, Offenders)	Mixed Axis I ² Mood ² Major Depression ² Dysthymia ² Bipolar ² Anxiety ² Social Phobia ² Generalized Anxiety Dx ² Obsessive Compulsive Dx ² Panic ² Post Traumatic Stress Dx ² Substance abuse ² Alcohol ² Impulse Dx ² Attention Deficit Hyperactivity Dx ²

Kafka and Prentky (1992)	USA	10	10	Male General Population	Male General Population	Mixed paraphilias ² : <i>Frotteurism</i> <i>Voyeurism</i> <i>Exhibitionism</i> <i>Fetishism</i> <i>Trans. Fet.</i> <i>Pedophilia</i> <i>Sadism</i> <i>Masochism</i> <i>Paraphilia NOS</i>	Unknown Mode: 36	Private Clinic	Depression ¹
Kafka and Prentky (1994)	USA	34	26	Male Outpatient	Male Outpatient	Mixed paraphilias ² : <i>Frotteurism</i> <i>Voyeurism</i> <i>Exhibitionism</i> <i>Fetishism</i> <i>Transvestic Fet.</i> <i>Pedophilia</i> <i>Sadism</i> <i>Masochism</i> <i>Paraphilia NOS</i>	35.58 (7.67) 21 – 53	Private Clinic (General pop, Incarcerated, other hospital units)	Mixed Axis I ² Mood ² Major Depression ² Dysthymia ² Bipolar ² Anxiety ² Social Phobia ² Generalized Anxiety Dx ² Obsessive Compulsive Dx ² Panic ² Phobia ² Post Traumatic Stress Dx ² Substance abuse ² Alcohol ² Impulse Dx ²
Kingston, Firestone, Moulden, and Bradford (2007)	Canada	49	43	Male Sex-Offenders	Male Sex-Offenders	Pedophilia ²	36.92 (12.21)	Psychiatric Hospital – Sexual Behaviours Unit	Alcohol ¹ Psychopathy ²

Levenson, Becker, and Morin (2008)	USA	123	49	Male Sex-Offenders	Male Sex-Offenders	Mixed Paraphilias ² : <i>Exhibitionism</i> <i>Sadism</i> <i>Pedophilia</i> <i>Paraphilia NOS</i>	42.00 (11.83)	Prison	Psychopathy ² Antisocial Personality Dx ² Personality Dx NOS ² Other Personality Dx ² Substance ² Other Mental Health ² Mixed Personality Dx ² Mixed Mental Health ²
Looman and Abracen (2013)	Canada	169	103	Male Sex-Offenders	Male Sex-Offenders	Mixed Paraphilias ² : <i>Pedophilia</i> <i>Bistophilia</i>	35.90 (9.40)	Forensic Hospital	Psychopathy ²
Marsh et al. (2010)	USA	15	97	Male Inpatient	Male Inpatient	Mixed paraphilias ² : <i>Frotteurism</i> <i>Voyeurism</i> <i>Exhibitionism</i> <i>Fetishism</i> <i>Pedophilia</i> <i>Sadism</i> <i>Masochism</i> <i>Paraphilia NOS</i>	45.6 (13.6) 18 – 85	Other Hospital Unit	Mood ² Anxiety ² Substance ² Psychotic ²
McLawsen, Scalora, and Darrow (2012)	USA	122	12	Male Sex-Offenders	Male Sex-Offenders	Mixed Paraphilias ² : <i>Exhibitionism</i> <i>Voyeurism</i> <i>Sadism</i> <i>Fetishism</i> <i>Pedophilia</i> (Majority) <i>Paraphilia NOS</i>	42.49 (12.74) 19 – 74	Forensic Hospital	Mixed Mental Health ² : Any Anxiety ² Any Mood ² Substance ² Psychotic ² Cognitive Dx ² Other Mental Health ² Personality Dx ²

Mendola (1998)	USA	149	68	Male Priests	Male Priests	Pedophilia ² Ephebophile ²	49.05 (Unknown) 21 – 75	Other Hospital Unit	Psychopathy ¹
Nielsen et al. (2011)	Australia	59	46	Male Sex-Offenders (child porn)	Male Sex-Offenders (child porn)	Mixed Paraphilias ² : <i>Exhibitionism</i> <i>Masochism</i> <i>Pedophilia</i> <i>Hebephilia</i> <i>Zoophilia</i>	39.54 (4.91)	Author clinic General pop court referral	Mood ² Anxiety ² Substance ² Childhood Dx ² Psychotic ² Personality Dx ²
Nitschke, Blendl, Ottermann, Osterheider, and Mokros (2009)	Germany	52	188	Male Sex-Offenders	Male Sex-Offenders	Sadism ² <i>Exhibitionism</i> <i>Voyeurism</i> <i>Masochism</i> <i>Fetishism</i>	35.60 (10.87) 15 – 71	Forensic Hospital	Antisocial Personality Dx ² Emotionally Unstable Personality Dx ² Alcohol ² Drug ² Psychopathy ²
Rickert (2013)	USA	15	18	Male Sex-Offenders	Male Sex-Offenders	Sadism ²	38.64 (13.48) 18 – 68	Private Clinic	Psychopathic Deviate ¹ Schizophrenia ¹ Hypomania ¹ Paranoia ¹ Hysteria ¹ Psychasthenia ¹
Sigre-Leiros, Carvalho, and Nobre (2016)	Portugal	21	44	Male Sex-Offenders	Male Sex-Offenders	Pedophilia ²	44.89 (11.11) 23 – 76	Prison	Alcohol Drug
Stinson and Becker (2011)	USA	32	190	Male Inpatient: Offenders	Male ^d Inpatient: Offenders	Mixed paraphilias ²	42.1 (12.2) 22 – 73 (includes females from	Forensic Hospital	Mixed Mental Health ² : Mood ² Anxiety ² Psychotic ²

							sample)		Cognitive Dx ² Attention Deficit Hyperactivity Dx/Impulse ² Substance ² Personality Dx ²
Strassberg, Eastvold, Wilson Kenney, and Suchy (2012)	USA	Sample 1 = 25 Sample 2 = 28	Sample 1 = 25 Sample 2 = 26	Male Sex- Offenders	Male Sex- Offenders	Pedophilia ²	Sample 1 = 32.1 (7.4) ⁴ 21 – 45 Sample 2 = 32.3 (7.43) ⁴ 19 – 49	Residential Treatment Centre	Psychopathy ¹
Woodworth et al. (2013)	Canada	83	21	Male Sex- Offenders	Male Sex- Offenders	Mixed paraphilias ² : Exhibitionism Voyeurism <i>Frotteurism</i> Sadism <i>Masochism</i> <i>Fetishism</i> Pedophilia <i>Paraphilia NOS</i>	43.88 (11.24) 19 – 77	Criminal Database	Psychopathy ²

Notes:

* Paraphilias in italic font were grouped within a mixed paraphilia category. They could not be analyzed separately for those studies.

¹ Self-report

² Clinician diagnoses

³ Paraphilic group data, matched control group

⁴ Includes group of community control

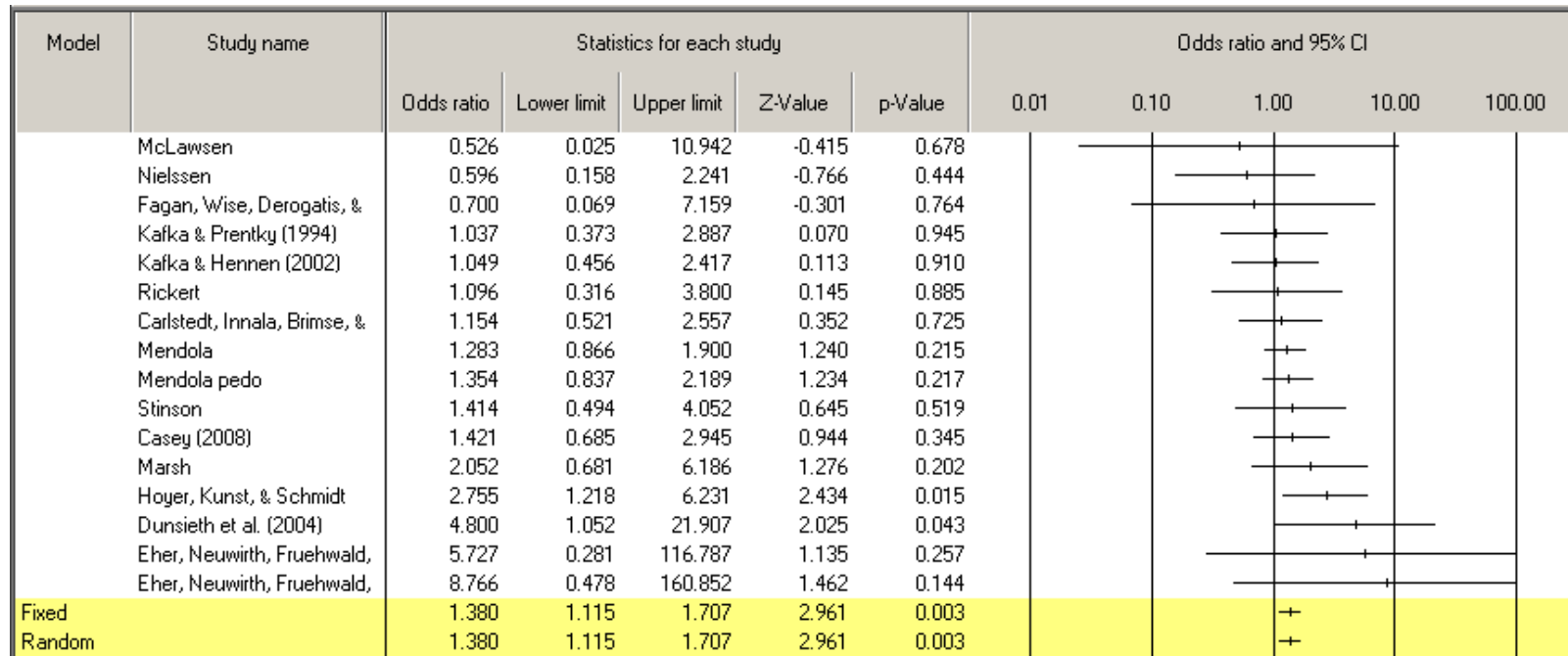


Figure 2.1: Forest plot of the 14 studies (16 samples) comparing individuals with and without paraphilias on anxiety disorders.

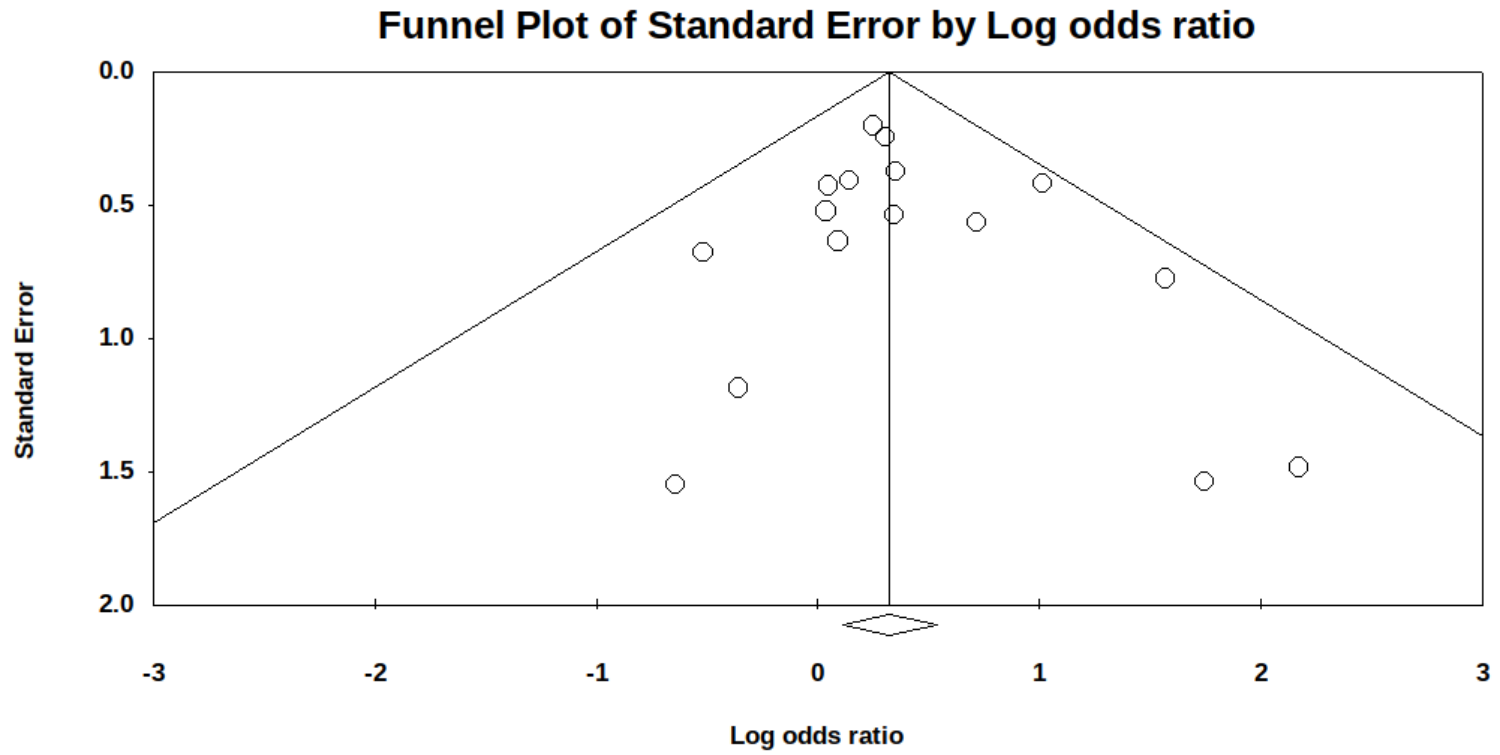


Figure 2.2: *Funnel plot of the 14 studies (16 samples) for studies comparing individuals with and without paraphilias on anxiety disorders*

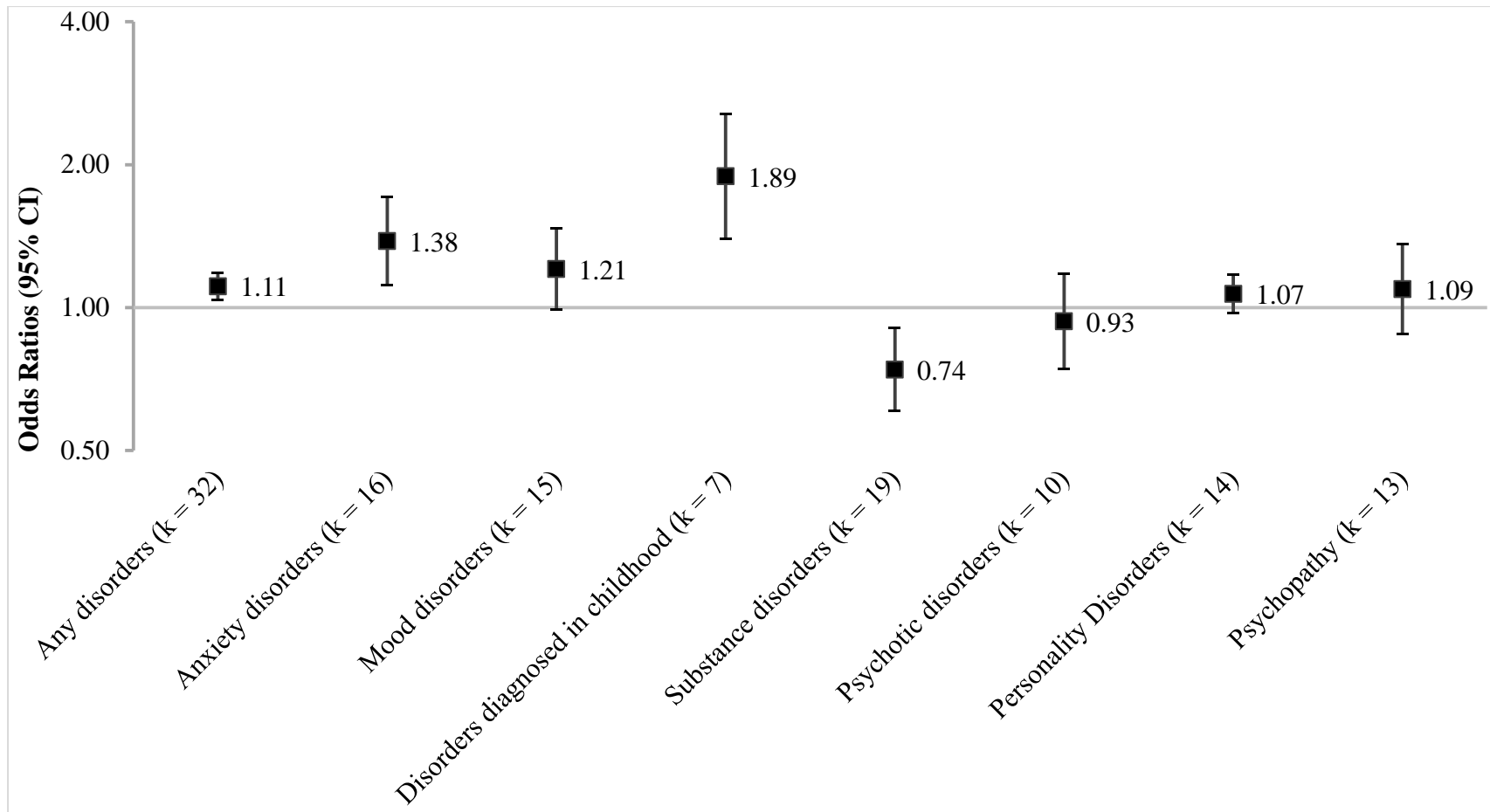


Figure 2.3: Odds ratios comparing individuals with a paraphilia to individuals without a paraphilia on the major mental health categories

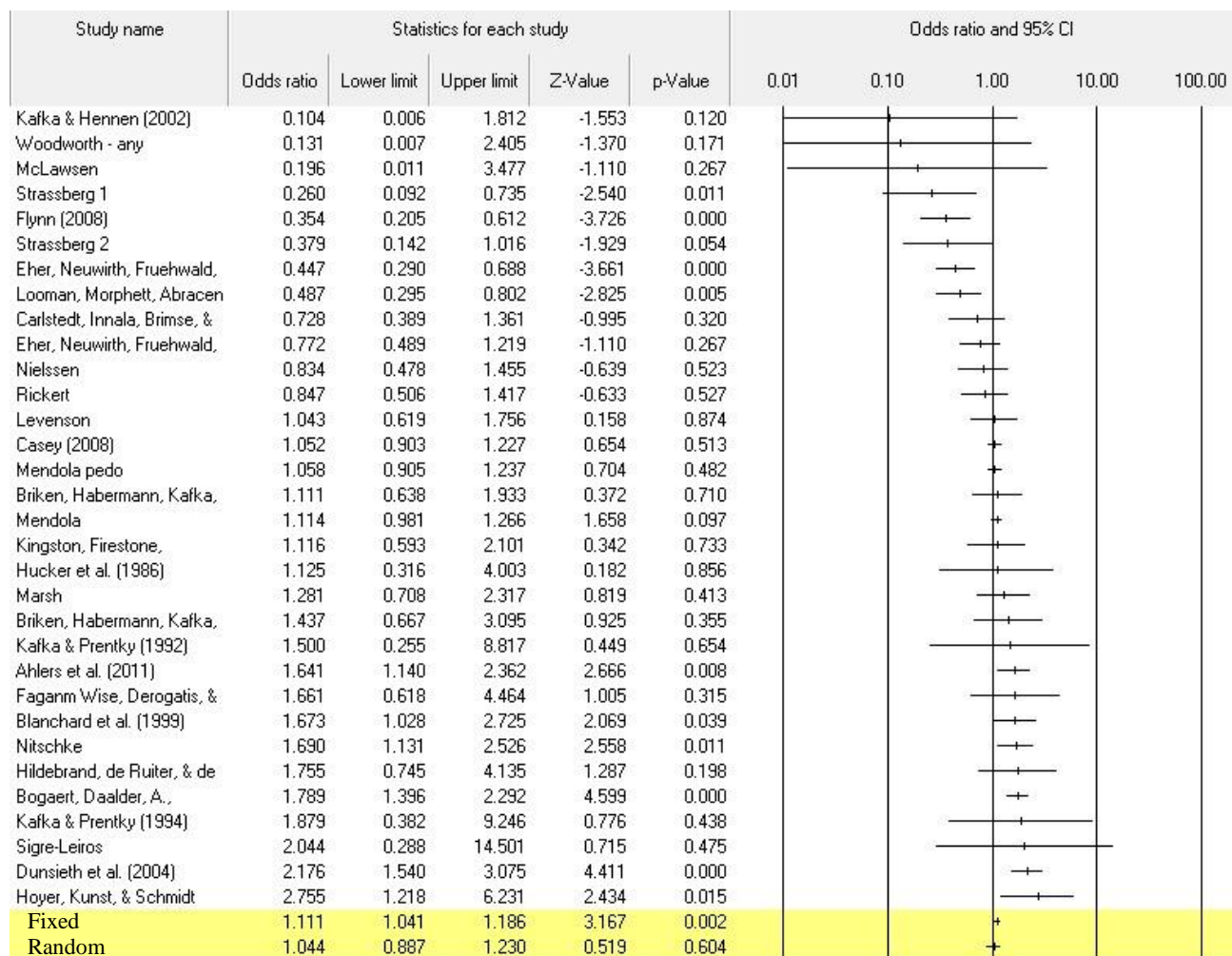


Figure 2.4: Forest plot of the 28 studies (32 samples) comparing individuals with and without paraphilias on any psychological disorders.

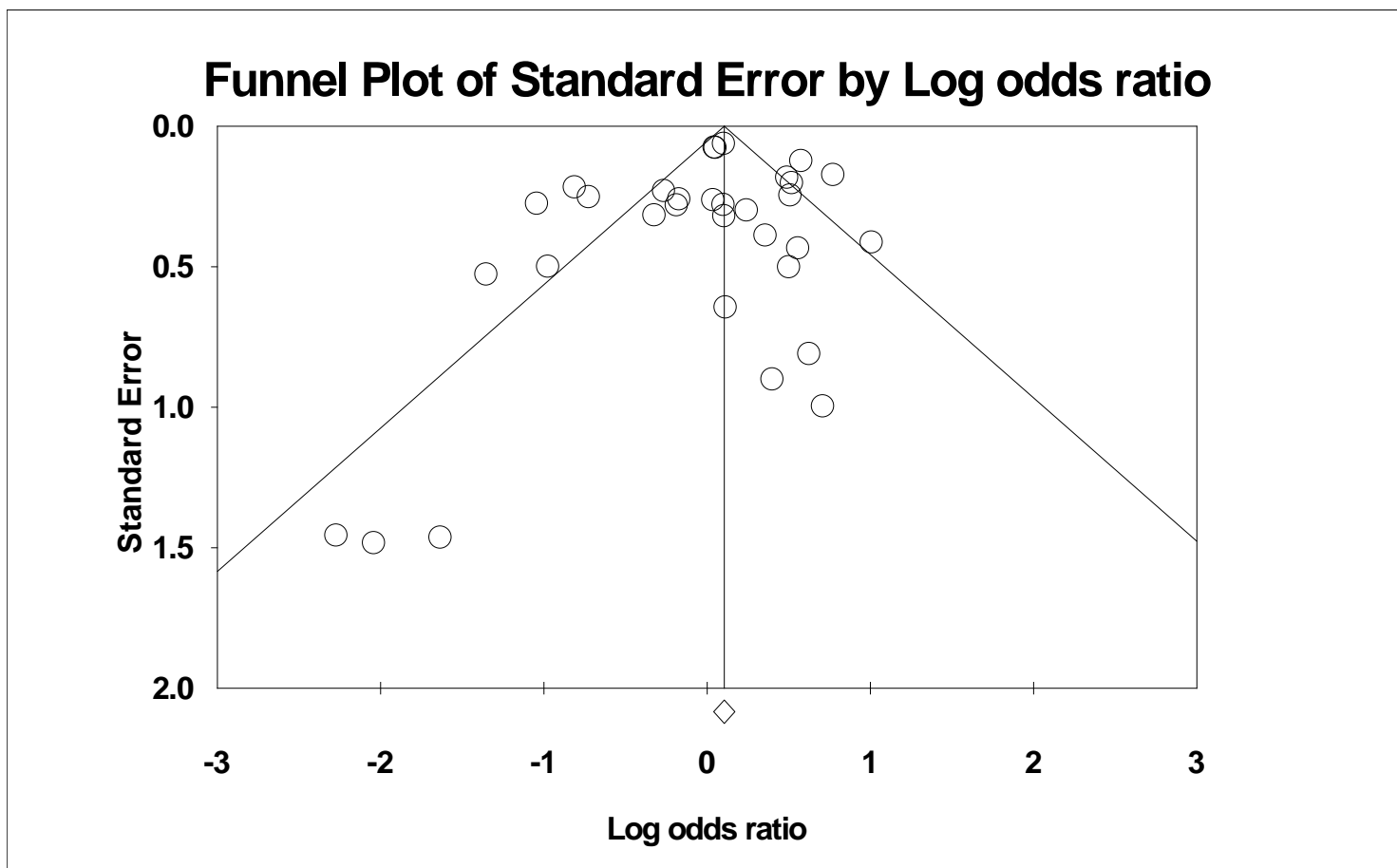


Figure 2.5: Funnel plot of the 28 studies (32 samples) for studies comparing individuals with and without paraphilias on any psychological disorders.

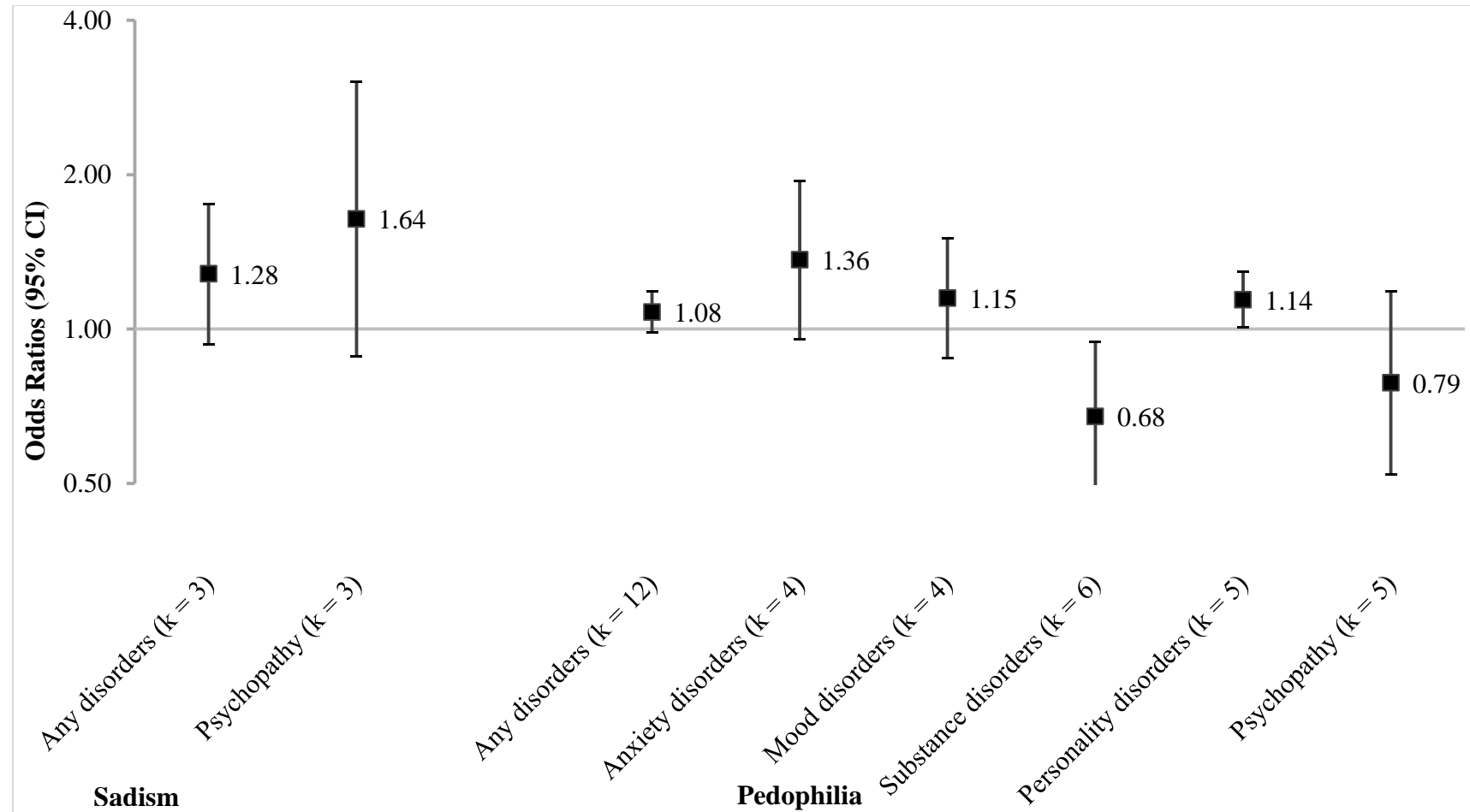


Figure 2.6: Odds ratios comparing individuals with sadism and individuals with pedophilia, respectively, to individuals without a paraphilia on the major mental health categories.

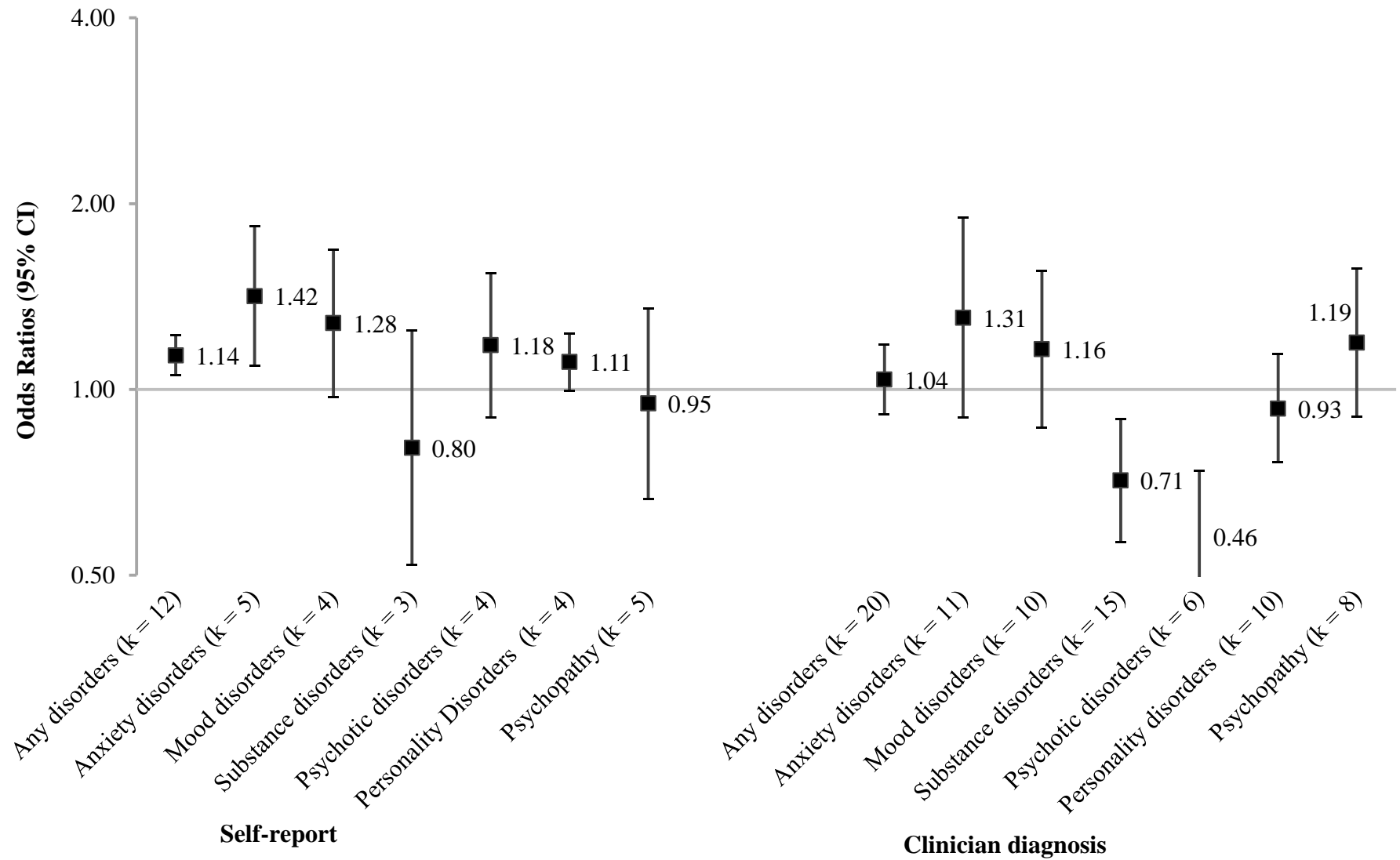


Figure 2.7: Odds ratios comparing individuals with a paraphilia to individuals without a paraphilia on the various categories of psychological disorders, and differentiating between self-report and clinician diagnosis.

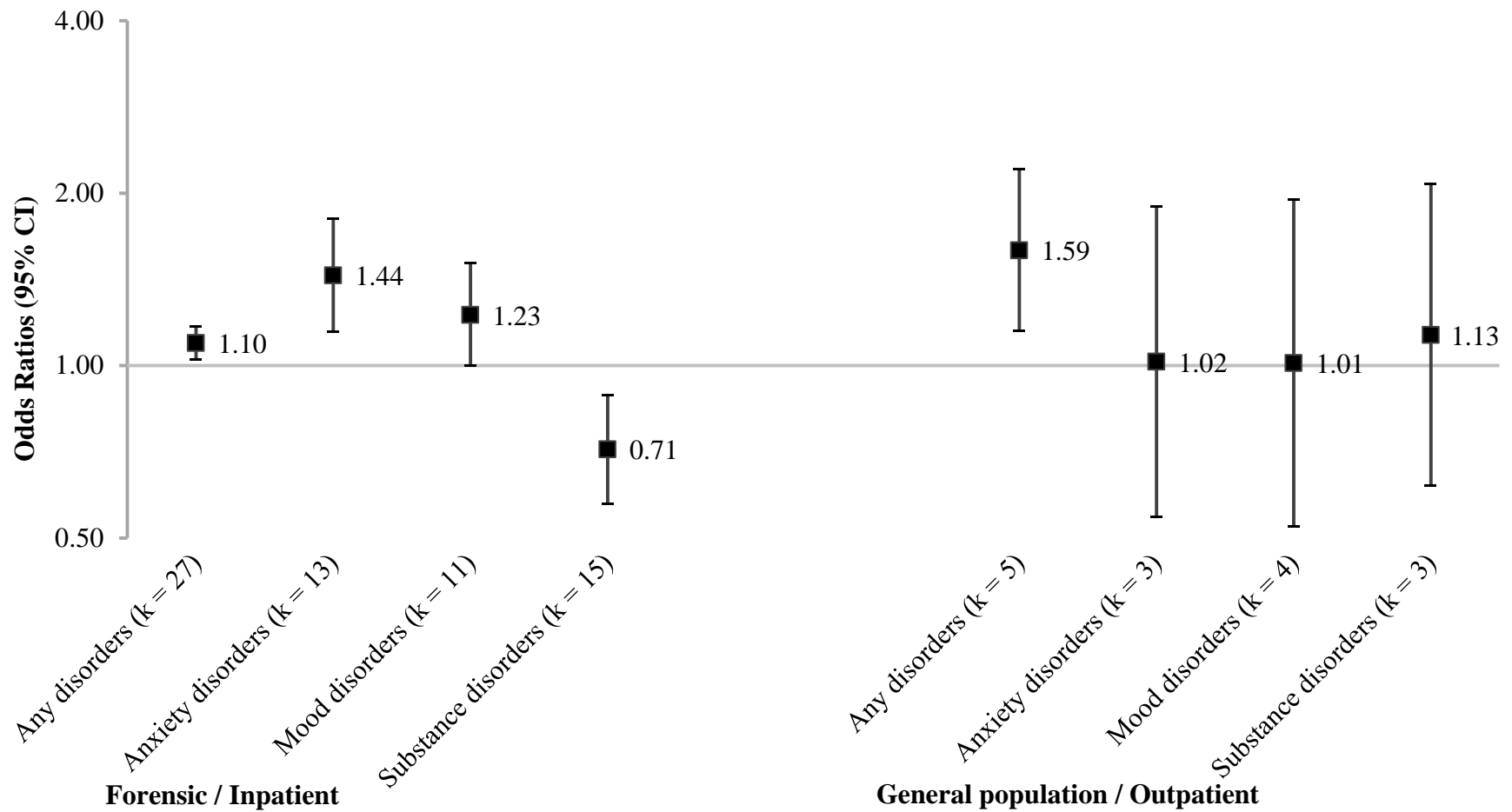


Figure 2.8: Odds ratios comparing individuals with a paraphilia to individuals without a paraphilia on the various categories of psychological disorders, and differentiating between forensic/inpatient and general population/outpatient.

CHAPTER 3

Is There a Link Between the Paraphilias and Anxiety? A Case-Control Study of 1,048 Consecutive Patients

Note: This study was funded by a grant from the Royal's Associates in Psychiatry University Medical Research Fund awarded to Lalumière, Ashbaugh, Curry, Renaud, Levaque, Fedoroff, Bradford, Jacobs, and Seto (2016-2017).

Do men with a paraphilia suffer from higher rates of anxiety than those who do not have a paraphilia? Do these rates vary depending on the type of paraphilia or type of anxiety? If there is a relationship between the paraphilias and anxiety, is it specific or are paraphilias related to other psychological disorders as well? The meta-analysis presented in Chapter 2 suggests that rates of anxiety are elevated in men with paraphilias, but rates of many other types of disorders are elevated as well. The meta-analysis had some limitations, however, and a study with a large sample and equivalent comparison groups would be informative to answer the main research questions. In addition, the study described in this chapter uses three types of information for assessing paraphilias and other psychological disorders: formal DSM diagnoses by clinicians, self-reported psychological symptoms by patients, and behavioural history (for pedophilia), allowing a test of consistency of co-morbidity across methods.

Method

Study Design

The present study consists of a chart review of patients seen between 1999 and 2009 at a clinic dealing with problematic sexual behaviours. The case-control design compares patients who received a diagnosis of paraphilia with patients who did not. This study was reviewed and approved by the Royal Ottawa Health Care Group's Research and Ethics Board (REB), as well as the University of Ottawa's REB.

Patients

The patients consisted of 1,048 consecutive patients seen for an assessment at The Royal's Sexual Behaviours Clinic (SBC) from January 1999 to December 2009. The SBC is part of the Forensic Program at The Royal Ottawa Mental Health Centre (ROMHC), and consists of an outpatient program that offers assessments and treatment that uses a recovery and

psychosocial rehabilitation model. The 1999-2009 period was chosen because the clinic collected consistent information during that period, and most clinical files were available for coding.

Twelve patients were excluded because they had not consented for their information to be used for research, 26 because their medical record could not be located, 5 because the SBC assessment file could not be obtained, 46 who were under the age of 18 at the time of the SBC assessment, and lastly 13 women and 2 patients whose sex was labeled as “other” were also eliminated. The initial plan was to include women in the study, but the number of cases was insufficient for analysis.

The remaining 944 patients had a mean age of 39.9, ranging from 18 to 84 ($SD = 13.1$) years old. Referrals to the SBC were from doctors (27.6%), courts (25.3%), lawyers (25.3%), others (20%), and 1.7% were from unknown sources. For non-court-ordered referrals, a referral by a medical doctor was necessary in order to be seen in the SBC during the time the study was conducted; referral source was coded in regards to who initiated the request for a doctor’s referral. Doctor initiated referrals were coded under “doctor”. The majority of patients were born in Canada (82.7%), and of those with available information regarding their ethnicity (25.1%), 69.6% were Caucasian, 9.7% were First Nations, 7.2% were African American, and 13.5% were of other ethnicities. In regard to relationship status, 42.9% were single at the time of assessment, 24.6% were divorced or separated, 22.6% were married, 8.3% were reported to be common-law or living together, and 1.7% fell within the others or unknown category. In regard to education, 9.4% had completed grade 8 or less, 26.3% had some high school education, 21.4% had completed high school, 38.2% had attended a post-secondary education program, and 4.8% had unknown or missing data. At the time of the assessment 18.8% were unemployed, 57.1%

were employed, 5.1% were retired, 4.8% were students, and 14.3% fell within the other or unknown categories.

In regard to criminal history, 37.8% had sexual charges only (e.g. indecent exposure, invitation to sexual touching, sexual exploitation, sexual assault), 9.2% had charges only related to non-sexual offences (e.g. theft, robbery, possessions of narcotics, driving while intoxicated, murder), 37.5% had both sexual and non-sexual offence charges, and 14.8% had no criminal history. Additionally, 41.8% had a clinical diagnosis of a paraphilia and 58.2% did not. Table 3.1 provides a summary of the demographic variables for the paraphilic and non-paraphilic groups separately.

Measures and Instruments

(1) **DSM diagnoses** (American Psychiatric Association, 1994, 2000, 2013) were available from the medical records. Preliminary diagnoses (based on initial assessment interview) were available from the SBC assessment files. Final diagnoses were available from the medical records for the full time period. All official diagnoses, past and present, available in the medical records were coded. Different versions of the DSM were used during the study period. Diagnoses were coded as they were indicated in the medical records regardless of the DSM version used. All DSM diagnoses indicated by clinicians were coded, as well as other psychological diagnoses mentioned (e.g. hypersexuality).

(2) **Decisionbase** (Long, 1986) is a computerized diagnostic interview self-administered by the client in order to screen for DSM-III disorders and later, DSM IV-TR disorders. The system gives multi-axial diagnosis and differential diagnosis. The self-rated interview is based on Robert Spitzer's structured clinical interview (SCID). The provisional diagnoses produced by Decisionbase were taken from the medical records and SBC assessment files. No information on

the reliability and validity of this measure are available. The advantages of this measure over clinician diagnosis are that it covers questions about diagnoses that clinicians might not investigate and there is standardisation in the presentation of questions to each participant.

(3) **The Revised Screening Scale for Pedophilic Interests – 2 (SSPI-2)** (Seto, Stephens, Lalumière, & Cantor, 2017) (Appendix E) was coded using available information within the medical records. This is a 5-item rating scale used for individuals who have a sexual offence victim under the age of 15. Four items relate to child victim characteristics. The first item is for victim gender and is scored positive if the individual has at least one male victim under the age of 15. The second item is scored positive if there are two or more victims under the age of 15. The third item relates to the age of the victim, scoring positive if any victims were under the age of 12. The fourth item relates to the perpetrator-victim relationship, and is scored positive if there are any extra-familial victims under the age of 15. The fifth item relates to child pornography, scoring positive if the individual had a charge of or self-reported possession of child pornography. Seto et al. (2017) provided validation information for this measure by demonstrating a correlation between scores (0 – 5) on the SSPI-2 and the phallometric pedophilia index, $r(948) = .25$. The same study showed that individuals with a score of 4 or 5 on the SSPI-2 had, respectively, 4.4 and 5.7 times higher odds of being identified as pedophilic through phallometry compared to individuals with a score of 0 or 1. The proportions of individuals identified as pedophilic through phallometry increased as the SSPI-2 scores increased. The SSPI-2 was used because it provides a measure of pedophilia that is based on past behaviours and that does not require clinical diagnosis.

(4) The **Psychological Symptom Subscale** (Appendix F) of the **Derogatis Sexual Functioning Inventory (DSFI)**. The DSFI is a multidimensional self-report questionnaire that

assesses general sexual functioning as well as specific aspects of sexuality such as Experience, Drive, Fantasies, Attitudes, and Satisfaction (Derogatis, 1975b). It also contains subscales assessing Psychological Symptoms, Affect, Gender Role, and Body Image. The Psychological Symptom Subscale of the DSFI contains the items from the Brief Symptom Inventory (BSI), a short version of the Symptom Checklist 90 (SCL-90-R). It has 53 items with a 5-point response scale ranging from 'not-at -all' to 'extremely'. These items produce scores on nine symptom dimensions: Somatization, Obsessive-compulsive, Interpersonal sensitivity, Depression, Anxiety, Hostility, Phobic anxiety, Paranoid ideation, and Psychoticism (Derogatis & Spencer, 1982). An overall evaluation of the presence of psychological symptoms is calculated with the General Symptom Index (GSI), derived from the nine symptom dimensions. The GSI is obtained by calculating the mean of all the subscale scores. The internal consistency (Cronbach's alpha) for the BSI ranges from .71 to .89 (Boulet & Boss, 1991; Derogatis & Spencer, 1982; Khalil, Hall, Moser, Lennie, & Frazier, 2011) and the test-retest reliability measured across a two-week period ranges from .68 to .91 (Derogatis & Spencer, 1982). Factor analysis (Derogatis & Melisaratos, 1979) yielded 7 factors: psychological distress, body image, heterosexual drive, autoeroticism, gender role, general satisfaction, and sexual precociousness. The psychological symptom subscale loaded heavily on the psychological distress factor (.86), indicating that the subscale likely measures a form of psychological distress. Furthermore, Derogatis and Melisaratos (1979) compared a clinical group ("transsexuals") to a non-clinical group ("normals") in order to determine if the DSFI could differentiate between two groups. For to the Psychological Symptoms Subscale, the GSI scores were significantly more elevated in the clinical group than the non-clinical group.

(5) The **Affects subscale of the DSFI** (Affects Balance Scale; Derogatis, 1975a) (Appendix G) consists of 40 adjectives, 20 reflecting positive feelings and 20 negative feelings. These items are self-reported and rated based on how the individual has been feeling in the past two weeks on a 5-point scale from “never” to “always”. These items provide scores on eight subscales: Anxiety, Depression, Guilt, Hostility, Joy, Contentment, Vigor, and Affection. This measure has been used to assess mood in different populations, including healthy heterosexual males and females, males and females with sexual dysfunction (Derogatis & Meyer, 1979), transsexual males (Derogatis, Meyer, & Vazquez, 1978), and women with breast cancer (Derogatis, Abeloff, & Melisaratos, 1979). The Affect Balance Index (ABI) provides an overall measure of affect by comparing the positive (Joy, Contentment, Vigor, Affection) and the negative (Anxiety, Depression, Guilt, Hostility) affect scales. The ABI is obtained by adding up the individual scores on the positive items, then dividing that by 20 (number of items); the same is done with the negative items. The negative number is then subtracted from the positive number producing the ABI score. Derogatis and Melisaratos (1979) reported an internal consistency of .93 for the positive affect subscale and of .94 for the negative affect subscale. The test-retest reliability measured across a two-week period was .75 for the positive affect subscale and .42 for the negative affect subscale. The positive symptom items loaded negatively on the psychological distress factor (-.49) and the negative symptom items loaded positively on this same factor (.74), suggesting that the affect subscale also measures a form of psychological distress. Furthermore, when clinical (“transsexuals”) and non-clinical (“normals”) groups were compared on the Affect Subscale, the clinical groups consistently showed lower positive affect and more elevated negative affect. This signifies high levels of unhappiness in the clinical groups compared to the non-clinical groups, indicating that the DSFI-Affect Subscale is capable

of differentiating between a clinical and non-clinical sample. The DSFI subscales were used to provide another source of information about mental health (self-report).

(6) A **Coding Form** (Appendix H) was created by the researchers and pilot tested on 10 files that were not included in the study (outside the date range). Basic demographic information was coded as well as the date of the admission and assessment at the ROMHC. Diagnostic information was divided between two sections; one for the clinical diagnosis and one for the Decisionbase diagnosis. Criminal history and index event information was coded from the files. Additionally, information regarding the individual's history of victimization and current medication use was coded.

Procedure

Four researchers coded the files of patients who obtained an assessment at the SBC from January 1999 to December 2009, and who had consented for their information to be used in research. Information was retrieved from three different sources, 1) the patients' medical record, 2) the SBC assessment file, and 3) the Forensic Assessment Form (FAF). The *coding form* (Appendix H) was utilized in order to extract the relevant information from these sources. A coding manual was created in order to guide the coders as well as assure standardization across coders. Each file took 30 minutes to 1 hour to code.

Analysis

Double coding was conducted on 5% (52) of the cases. After eliminating the cases that did not meet the inclusion criteria (2 women and 3 under 18 years old), 47 cases were analysed for inter-rater reliability. Intra-class correlations (for continuous variables) and kappas (for categorical variables) were calculated. Kappas range from 0 to 1; 0 representing no agreement between raters and 1 complete agreement. Double coding was conducted throughout the coding

period: In each set of 20 files, 1 file was randomly selected to be double coded.

Kappas for the mental health variables diagnosed through Decisionbase varied from 0.66 to 1.00 with an average of 0.97. For the psychological disorders diagnosed by a clinician, the kappas ranged from 0.16 to 1.00, with an average of 0.86. The lowest kappa at 0.16 was for the “sexual dysfunction” variable. Due to the low kappa on this variable, the clinician diagnosis of sexual dysfunction was not considered in the analyses. The second lowest kappa for the clinical diagnosis was 0.48 for the “other personality disorder” variable. The kappas for the paraphilia diagnosis ranged from 0.48 to 1.00 with an average of 0.74. These values do not include variables that both raters agreed on *no diagnosis* for every single case, since kappa cannot be calculated for those variables; therefore 0.74 is likely an underestimate of reliability. The intraclass correlation for SSPI-2 was $r(20) = 0.94$, 95% CI [0.85, 0.98]. The SSPI-2 was scored for individuals with a child victim.

The statistical analyses involved the comparison of 395 individuals with a diagnosis of paraphilia and 549 individuals without a diagnosed paraphilia¹ (based on official clinician diagnoses) on the:

- Presence of diagnoses of anxiety and subtypes of anxiety (using odds ratios and 95% CI) on Decisionbase and on clinician’s diagnoses. Nine subtypes of anxiety were included: Anxiety NOS, Generalized Anxiety Disorder, Panic Disorder, Agoraphobia, Social Anxiety, Specific Phobia, Obsessive-Compulsive Disorder (OCD), Separation Anxiety, and Post Traumatic Stress Disorder (PTSD). Despite recent changes in the DSM-5 regarding the exclusion of OCD and PTSD from the anxiety category, since

¹ Given that the data spanned from 1999 to 2009 and that in some cases diagnoses were provided prior to this date, diagnoses from the DSM-III, DSM-IV, and DSM-IV-TR were utilised. A diagnosis of paraphilia from the later versions was equated to a paraphilic disorder.

older versions of the diagnostic manual were utilized at the time of data collection, for the purpose of this study, they were included in the anxiety category. Furthermore, this allows for consistency and better comparison with the meta-analysis study (Chapter 2) in which OCD and PTSD were part of the anxiety category as well.

- Presence of psychiatric diagnoses other than anxiety (using odds ratios and 95% CI) on Decisionbase and on clinician's diagnoses. Six sub-categories were created: any disorders including Personality Disorders, any disorders excluding Personality Disorders, disorders diagnosed in childhood, Substance Disorders, Mood Disorders, and Personality Disorders.
- Average scores on self-report measures of mental health using the Psychological Symptom Subscale as well as the Affect subscale of the DSFI (using Cohen's *d* and 95% CI). Self-report measures of mental health do not provide diagnostic information but they can be informative with regard to the link between paraphilias and mental health.

Sub-groups of paraphilic patients (e.g., courtship disorders, pedophilia, sadomasochism, fetishism, and others paraphilias) were created and these groups were compared to the non-paraphilic group on all the relevant measures. Sub-groups of paraphilias were created based on literature (e.g., Freund's courtship disorders). Patients were also divided according to their SSPI-2 scores and compared on the major mental health categories.

Results

Of the 944 cases, 41.8% had at least one lifetime clinician's diagnosis of a paraphilia, and 12.1% had at least one lifetime clinician's diagnosis of an anxiety disorder (hereinafter 'clinical diagnosis'). Of the 592 cases with a completed Decisionbase, 12.2% had a Decisionbase

provisional diagnosis of any paraphilia, and 28.3% had a Decisionbase provisional diagnosis of an anxiety disorder. The most common paraphilia diagnosis provided by a clinician was pedophilia (27.5%) and the most common paraphilia diagnoses suggested by Decisionbase were voyeurism (4.7%), pedophilia (4.6%), and frotteurism (4.2%). The most common anxiety disorder diagnosis provided by a clinician was social phobia (4.2%), and the most common anxiety disorder diagnosis suggested by Decisionbase was PTSD (9.5%). See Table 3.2 for frequencies of paraphilia diagnoses and Table 3.3 for frequencies of anxiety disorder diagnoses by clinicians and suggested by Decisionbase.

Correspondence Between Clinician Diagnoses and Decisionbase Diagnoses

Patients diagnosed with a paraphilia disorder by a clinician had 5.50 times greater odds, 95% CI [3.11, 9.75], of also having a provisional diagnosis of a paraphilia through Decisionbase. Similarly, patients diagnosed with an anxiety disorder by a clinician had 4.15 times greater odds, 95% CI [2.73, 6.32], of obtaining a provisional anxiety disorder diagnosis through Decisionbase. Because Decisionbase is not a specialised tool for paraphilia diagnosis and it is based on self-report—which may be influenced by impression management—, analyses comparing patients with and without a paraphilia utilised only the paraphilia diagnoses provided by clinicians. All analyses were conducted on the 944 cases when looking at clinical diagnoses only, and on the 592 cases with a completed Decisionbase when looking at this particular source of information for disorders other than paraphilias.

Is a Diagnosis of a Paraphilia Related to Greater Odds of an Anxiety Disorder Diagnosis?

Yes. Patients with a paraphilia had 1.64 times greater odds, 95% CI [1.08, 2.43], of also having a clinical diagnosis of an anxiety disorder than patients without a paraphilia. Similarly,

patients with a paraphilia had 1.62 times greater odds, 95% CI [1.13, 2.33], of having an anxiety disorder diagnosed provisionally through Decisionbase than patients without a paraphilia.

Is the Relationship Between Paraphilias and Anxiety Specific to a Subtype of Anxiety Disorders?

As shown in Figure 3.1, the odds of patients having a clinical diagnosis of anxiety if they have a clinical diagnosis of paraphilia were elevated across subtypes of anxiety. The highest odds for which the 95% CI does not include 1.0 are for OCD, with odds of 7.83 times greater, 95% CI [1.73, 35.55], for patients with a paraphilia. Similar results are shown in Figure 3.1 for the Decisionbase provisional diagnoses of anxiety. Both show some variation across anxiety disorders. Yet, for all types of anxiety and for both sources of information, the odds ratios are above 1.0 (although the 95% CI sometimes include 1.0). Therefore, the relationship between paraphilias and anxiety does not appear to be specific to any subtype of anxiety disorder, although might be stronger for some.

Is the Relationship Between Paraphilias and Anxiety Disorders Specific to a Sub-Category of Paraphilias?

Figures 3.2 through 3.6 show the odds ratio results comparing men with diagnoses of different categories of paraphilias and men without any paraphilia on the subtypes of anxiety. The different categories are courtship disorders (voyeurism, exhibitionism, frotteurism, and telephone scatologia), pedophilia (pedophilia, hebephilia, and ephebophilia), sadomasochism (sadism and masochism), fetishism (fetishism and transvestic fetishism), and other paraphilias (necrophilia, coprophilia, urophilia, zoophilia, and paraphilia NOS). Although there is a general tendency for patients who have a paraphilia to also have anxiety, there is some variation between paraphilia categories as well as between types of anxiety disorders. For example, patients with a

paraphilia falling within the pedophilia or the other category have consistently greater odds of having an anxiety disorder than patients without a paraphilia. This is noticeable with the odds ratios being above 1.0 for each subtype of anxiety (although the 95% CI sometimes include 1.0). Patients within the fetishism group, however, have odds ratios falling below 1.0 for certain subtypes of anxiety (e.g., PTSD). Of note, when looking at the subcategories of anxiety disorders suggested by the Decisionbase, panic disorder is consistently more present in patients with a paraphilia regardless of the subgroup (with 95% CI never including 1.0). Overall, then, the relationship between paraphilias and anxiety does not appear to be specific to a sub-category of paraphilias.

Is the Relationship Specific to Anxiety Disorders?

Of the 944 cases, 70.4% had at least one lifetime clinical psychiatric diagnosis of a disorder other than a paraphilia. Of the 592 cases with a completed Decisionbase, 79.9% had a Decisionbase provisional diagnosis of a disorder other than paraphilias. The most common diagnosis provided by a clinician was major depression (23.1%), and the most common diagnosis suggested by Decisionbase was stimulant addiction (29.2%). See Table 3.4 for frequencies of other diagnoses by both clinicians and suggested by Decisionbase.

As shown in Figure 3.7, the odds of patients having a clinical diagnosis of other psychological disorders if they have a clinical diagnosis of paraphilia varied slightly between the major categories of disorders (i.e., any disorders including personality disorders, any disorder excluding personality disorders, anxiety disorders, disorders diagnosed in childhood, substance disorders, mood disorders, and personality disorders). The highest odds are for personality disorders (PD), with odds being 4.30 times greater, 95% CI [3.07, 6.02], for patients with a paraphilia. Similar results are shown in Figure 3.7 for the Decisionbase suggested diagnoses.

Both show some variation between the major categories. Yet for all types of disorders and for both sources of information, the odds ratios are above 1.0. Therefore there seems to be a general relationship between paraphilias and mental disorders. Additionally, the odds ratios do not appear higher for anxiety disorders than for other types of disorders.

Does the Relationship With Other Psychological Disorders Vary According to Sub-Categories of Paraphilia?

Figures 3.8 through 3.12 show the odds ratio results comparing men with diagnoses within different categories of paraphilias and men without any paraphilia on the major categories of psychological disorder: The results show there is a general tendency for patients with a paraphilia to have higher odds of also having another psychological disorder regardless of the subcategories of paraphilia. Looking at psychological disorder diagnoses provided by clinicians, only three subgroups have an odd ratio with a 95% CI that includes 1.0, all of which are for the anxiety category. This shows that the relationship with paraphilias is not specific to a subgroup of paraphilia nor is it exclusive to anxiety.

The general relationship between psychological disorders and paraphilias is further illustrated by analyses looking at patients with comorbid paraphilias (having two or more different paraphilia diagnoses). Figure 3.13 shows the percentage of patients who have a diagnosis of any mental disorder for categories of patients who have had no lifetime diagnoses of paraphilia, lifetime diagnoses of one paraphilia, and patients who have had two or more different paraphilia diagnoses within their lifetime. The figure shows that the percentage of patients with psychological disorders increases as the number of comorbid paraphilias increase.

Is this Relationship Present in Patients Who Are Diagnosed With Only One Type of Paraphilia?

Due to the elevated numbers of comorbidities between paraphilia groups (Table 3.5)—for example a patient with pedophilia and a courtship disorder paraphilia is considered to have comorbidity between two groups of paraphilias—I created paraphilia groups with patients who only had a diagnosis of paraphilias within that subgroup; thus, these patients did not have a comorbid paraphilia with a different paraphilia category (Table 3.6). These groups were created in order to eliminate an overlap between the different paraphilia groups and create groups that are completely independent of each other in terms of paraphilia diagnosis. This allowed me to eliminate other variables that might influence the comorbidity with other psychological disorders. Analyses could only be completed with the pedophilia group due to the small number of patients in the other paraphilia subgroups. Figure 3.14 compares patients with a paraphilia diagnosis within the pedophilia group only to patients without any paraphilia on the major mental health categories as diagnosed by a clinician and suggested by Decisionbase, respectively. Once again it is noticed that individuals with only pedophilia group diagnosis have higher odds of also having a lifetime diagnosis of other psychological disorders.

Does the Relationship Between Pedophilia and Other Psychological Disorders Exist Using a Different Method of Evaluation for Pedophilia?

Seto et al. (2017) have demonstrated that the SSPI-2 is a valid measure of pedophilia. Scores on this measure range from 0 to 5. Offenders with scores of 4 or 5 have high rates of pedophilia and offenders with scores of 0 have low rates of pedophilia. It is important to note that this measure is scored based on behaviour, therefore only individuals who have committed a sexual crime against a minor (under age 15), and for which the information was available in their files, are included in these analyses ($n = 570$).

As shown in Table 3.7, as the SSPI-2 scores get higher, so does the frequency of patients diagnosed with pedophilia by a clinician within those categories. The pedophilia group (scores of 4-5 on the SSPI-2) was compared to patients with a score of 0 on the major categories of psychological disorders using odds ratios. As shown in Figure 3.15, the patients with a score of 4 or 5 (pedophilia) on the SSPI-2 have higher odds of also having a diagnosis of other psychological disorders by a clinician. This finding is perceivable for every major subcategory. A similar tendency is noticeable when the groups are compared on Decisionbase suggested diagnoses, although in this case most 95% CI include 1.0.

When looking at the relationship between individual scores on the SSPI-2 and other major mental health categories, a similar pattern occurs for the different categories. As demonstrated in Table 3.7 with anxiety, the relationship is not linear but an increase is noticeable when looking at the pedophilia category (scores of 4-5) compared to the others. This is seen with both clinical as well as provisional Decisionbase diagnosis. This demonstrates that the relationship between pedophilia and mental health is present when utilising a different method of evaluation for pedophilia.

Does the Relationship Between Paraphilias and Psychological Disorders Extend to Self-Reported Measures of Symptoms of Psychological Disorders?

The total scores for the DSFI psychological symptoms subscale as well as the affect subscale were used to compare patients with a paraphilia diagnosis to patients without a paraphilia diagnosis. The results are shown in Figure 3.16. Patients with a paraphilia diagnosis have higher scores on the General Severity Index (GSI), indicating more psychological symptoms in patients with a paraphilia, and lower scores on the Affect Balance Index (ABI), indicating more negative affect in patients with paraphilias. These results also extend to the

evaluation of pedophilia with the SSPI-2. Patients within the pedophilia category (scores of 4-5, versus score of 0) had higher scores on the GSI index, as indicated by a Cohen's d of 0.66, 95% CI [0.31, 1.01]. In regard to the ABI, patients within the pedophilia group had lower scores, as indicated by a Cohen's d of -0.44, 95% CI [-0.78, -0.09]. Additionally, as show in Table 3.8, the mean for the GSI becomes higher in relation to the scores on the SSPI-2 and the opposite is seen for the ABI, where the mean scores for the groups become lower as the scores on the SSPI-2 become higher, indicating more negative symptoms as pedophilia becomes more likely. Thus, the relationship between paraphilias and psychological symptoms is apparent when looking at self-report measures of mental health as well.

Discussion

It was hypothesised that if anxiety has a role to play in the development of paraphilic interests, men with paraphilias would have greater odds of also having an anxiety disorder than men without paraphilias. The results support this hypothesis. Anxiety, however, was not the only psychological disorder associated with the paraphilias: There was a tendency for men with paraphilias to have higher odds of having many different psychological disorders than men without paraphilias. These results were consistent when looking at the different types of measures of mental health, and different measures of paraphilias.

The results corroborate previous studies reporting higher rates of various psychological disorders in individuals with paraphilias compared to individuals without paraphilias (Carlstedt et al., 2005; Kafka & Hennen, 2002; Marsh et al., 2010). The small number of participants in these studies can account for the fact that these studies were not consistent in the disorders that were more prevalent in paraphilic individuals, and for the non-significant results in some cases. Kafka and Hennen (2002), with a group of 120 participants, found that ADHD, mood disorders,

psychoactive substance abuse, and anxiety were more prevalent in paraphilic than non-paraphilic individuals, while other studies such as Carlstedt et al. (2005) and Marsh et al. (2010) found no significant difference between the paraphilic and the non-paraphilic groups using 185 and 112 participants, respectively. This study had almost 1,000 cases with valid data. Furthermore, as shown in the previous chapter, the meta-analysis results also suggested a generalized relationship with psychological disorders. This large scale study corroborates those results.

Regarding the hypothesis linking the development of paraphilias to anxiety, these results suggest once again that anxiety might not play as significant a role in the development of paraphilias as expected. That being said, this study is not definitive. Looking at the timeline of development could provide further insight into the relationship between paraphilias and psychological disorders. If a specific disorder, for example anxiety, has higher odds of developing prior to the paraphilia, the hypothesis might still be relevant in understanding the etiology of paraphilias. I return to this topic in the General Discussion .

Limitations

It is important to note that the data for this study were taken from a psychiatric hospital setting, and therefore, the results may not be generalizable to other settings or populations. The number of patients with psychological disorders could be inflated due to the setting from which the data were obtained. It could be hypothesised that in a non-clinical sample of the general population, psychological disorders would be less present. Furthermore, the population studied is more likely to have paraphilic disorders, compared to a paraphilia, indicating that these results might not apply to paraphilic interests. Additionally, only 14.8% of the sample had no criminal history reported in their files. Involvement with the justice system can be quite stressful. Stress, whether originating from an atypical sexual interest, or in this case involvement with the justice

system, could lead to the development of psychological symptoms. The high rates of criminal history within the sample could also have inflated the rates of psychological disorders, but would probably not affect the paraphilia vs. no paraphilia differences because the same number in each group had a criminal history.

The main data for this study are based on psychiatric diagnoses provided by a clinician. It has been discussed in the literature that although the reliability of psychiatric diagnoses has improved over the years, it has not yet reached a high level due in part to clinician as well as patient factors (e.g., patient's psychological state, inconsistent information, clinical training, experience; Aboraya, Rankin, France, El-Missiry, & John, 2006). The validity of psychiatric diagnosis has also been a source of debate over the years; although the use of classification systems helps (e.g. DSM), some still argue that it is not as ideal as, for example, biological markers (Aboraya, France, Young, Curci, & LePage, 2005; Jablensky, 2016). In the context of the SBC, clinicians utilise multiple sources of information (e.g. questionnaires, interviews, police reports) to conduct their evaluation and provide diagnosis. Utilising collateral information is one way to provide a more reliable and valid diagnosis. Ideally, diagnoses would be evaluated with a structured clinical interview, such as the Structured Clinical Interview for DSM (SCID) (First, Williams, Karg, & Spitzer, 2015).

Additionally, due to the fact that most of the data are based on clinical psychiatric diagnoses, in order to control for shared method variance, where the link between variables appears stronger when they are evaluated in the same manner (e.g. questionnaires, clinical diagnosis), a different method to evaluate pedophilia was utilised (SSPI-2) and yielded similar results. Patients with higher scores on the SSPI-2 had more diagnoses of other psychological disorders, indicating that the link between paraphilias and the other psychological diagnosis may

not be caused by shared method variance. Similarly, psychological diagnoses were evaluated by a clinician, as well as self-reported questionnaires. Both sources yielded similar results. As indicated in the result section, patients diagnosed with a paraphilia by a clinician had higher odds of also obtaining a provisional diagnosis of paraphilia on the self-reported Decisionbase measure. Similar results were obtained regarding the diagnosis of anxiety. This correspondence between a clinician diagnosis and the Decisionbase provisional diagnoses also suggest that the relationship between paraphilias and psychological disorders may not be caused by shared method variance.

As previously indicated, this study did not evaluate the timeline of appearance of the disorders. Therefore I was unable to determine whether the paraphilias or the other psychological disorders came first. Is it as a result of the atypical nature of paraphilias that patients developed other psychological disorders? Or that paraphilias develop following the other psychological disorders? Or is there a third factor that contributes to both?

Conclusion

Despite its limitations, this study has provided important information regarding the paraphilias and brings us one step closer to understanding their etiology. Knowing that paraphilias have a general link with psychological disorders opens up a new avenue of research for this field of study. This link could be the key to further our understanding of the development of paraphilias, and may even help our understanding of psychological disorders in general. How these results fit within the current theories of development will be discussed in the next chapter. Continued research in this domain is important in order to develop better treatment for individuals who suffer from paraphilias, reduce the stigma associated with atypical sexual interests, and reduce victimization when paraphilias lead to non-consenting sexual behaviours.

Table 3.1

Summary of demographic variables for the paraphilic and non-paraphilic groups as diagnosed by a clinician

	Paraphilic (n = 395)	Non-paraphilic (n = 549)
	Mean (SD) or %	Mean (SD) or %
Age (years)	40.4 (SD = 12.9)	39.6 (SD = 13.3)
Place of birth		
Canada	87.6	79.2
Other	7.8	13.8
Unknown/missing	4.6	6.9
Ethnicity		
Caucasian	23.3	13.3
First Nation	2.5	2.4
African American	1.3	2.2
Other	2.3	4.2
Unknown/missing	70.6	78.0
Relationship status		
Single	48.6	38.8
Divorced / Separated	25.1	24.2
Married	18.2	25.7
Common-Law / Living together	6.6	9.5
Other	1.0	1.6
Unknown / missing	0.5	0.2
Referral source		
Doctor	31.6	24.8
Court	20.2	28.8
Lawyer	25.1	25.5
Other	17.7	17.3
Unknown / missing	5.4	3.6
Education		
Grade 8 or less	9.9	8.9
Some High School	25.8	26.6
High School	20.7	21.8
Post-secondary education	40.0	37.0
Unknown / missing	3.5	5.6
Employment		
Full or part time	52.9	60.1
Unemployed	22.3	16.2
Retired	4.3	5.6
Student	4.3	5.1
Other	5.6	3.6
Unknown / missing	10.6	9.3

Criminal history		
Sexual only	32.1	41.9
Non-sexual only	9.9	8.7
Both	42.3	34.1
None	15.2	14.6
Unknown / missing	0.5	0.7
Victim of sex abuse		
Yes	39.0	20.9
No	47.6	58.7
Unknown / missing	13.4	20.4

Table 3.2

Lifetime Paraphilia Diagnoses

Paraphilia	Clinical Diagnosis (n = 944)		Decisionbase (DB) Diagnosis (n = 592)	
	Frequency	Percent of total sample	Frequency	Percentage of sample with a completed DB
Pedophilia	260	27.5	27	4.6
Hebephilia	55	5.8	0	0
Paraphilia NOS	54	5.7	0	0
Exhibitionism	47	5.0	19	3.2
Sexual Sadism	43	4.6	14	2.4
Voyeurism	36	3.8	28	4.7
Transvestic fetishism	26	2.8	7	1.2
Fetishism	26	2.8	5	<1
Frotteurism	19	2.0	25	4.2
Sexual masochism	9	1.0	9	1.5
Urophilia	7	<1	N/A	N/A
Zoophilia	7	<1	N/A	N/A
Telephone Scatalogia	4	<1	N/A	N/A
Ephebephilia	4	<1	N/A	N/A
Coprophilia	3	<1	N/A	N/A
Necrophilia	1	<1	N/A	N/A
Any paraphilia	395	41.8	72	12.2
None	549	58.2	520	87.8

Note. NOS = not otherwise specified.

Table 3.3

Lifetime Anxiety Disorder Diagnoses

Clinical Diagnosis (n = 944)			Decisionbase (DB) Diagnosis (n = 592)	
Sub-type of anxiety	Frequency	Percent of total sample	Frequency	Percentage of sample with a completed DB
Social anxiety	40	4.2	25	4.2
Post-traumatic stress dx	25	2.6	56	9.5
Anxiety NOS	25	2.6	12	2.0
Panic dx	22	2.3	50	8.5
Generalized anxiety dx	21	2.2	4	<1
Agoraphobia	15	1.6	51	8.6
Obsessive-compulsive dx	13	1.4	13	2.2
Specific phobia	3	<1	5	<1
Separation anxiety	1	<1	22	3.7
Any anxiety	114	12.1	167	28.3
None	830	87.9	425	71.8

Note. NOS = not otherwise specified.

Table 3.4

Lifetime Psychological Diagnoses

Diagnosis	Clinical Diagnosis (n = 944)		Decisionbase (DB) Diagnosis (n = 592)	
	Frequency	Percent of total sample	Frequency	Percentage of sample with a completed DB
Any disorder* (including personality dx)	639	67.7	473	79.9
Any disorder* (excluding personality dx)	625	66.2	425	71.8
Disorders diagnosed in childhood	171	18.1	148	25.0
Attention dx	89	9.4	50	8.5
Disruptive dx	33	3.5	69	11.7
Intellectual disability	65	6.9	9	1.5
Autism	19	2	11	1.9
Learning dx	38	4	30	5.1
Elimination dx	1	<1	19	3.2
Other childhood dx	2	<1	51	8.6
Substance disorders	301	31.9	251	42.4
Alcohol	209	22.1	151	25.6
Depressant	210	22.2	156	26.4
Stimulant	62	6.6	172	29.2
Opioid	13	1.4	33	5.6
Cannabis	108	11.4	79	13.4
Hallucinogen	6	<1	22	3.7
Other substances	120	12.7	11	1.9
Mood disorders	243	25.7	121	20.4
Major depression	218	23.1	119	20.2
Bipolar	28	3	18	3.1
Mood NOS	19	2	2	<1

Other dx				
Cognitive dx	11	1.2	8	1.4
Traumatic brain injury	1	<1	0	0.0
Schizophrenia	67	7.1	124	21.0
Dissociative dx	5	<1	0	0.0
Somatoform dx	6	<1	46	7.8
Sexual dysfunction**	106	11.2	28	4.7
Hypersexuality	31	3.3	0	0.0
Gender identity dx	21	2.2	10	1.7
Eating dx	0	0.0	34	5.8
Sleep dx	45	4.8	0	0.0
Adjustment dx	183	19.4	0	0.0
Personality dx				
Cluster A	25	2.6	105	17.8
Cluster B	104	11	163	27.6
Cluster C	26	2.8	168	28.5
Other	99	10.5	55	9.3

*Note: *Also includes anxiety disorders*

*** Not included in the any disorder categories due to a low KAPPA*

Table 3.5

Number of comorbidities between paraphilia groups

# of different paraphilia group diagnosis	Clinical Diagnosis (n = 944)		Decisionbase (DB) Diagnosis (n = 592)	
	Frequency	Percent of total sample	Frequency	Percentage of sample with a completed DB
0	549	58.2	317	53.5
1	305	32.3	205	34.6
2	62	6.6	48	8.1
3	18	1.9	13	2.2
4	7	0.7	6	1
5	3	0.3	3	0.5
Total	944	100	592	100

Table 3.6

Frequency of paraphilias without comorbidity between groups

Clinical Diagnosis (n = 944)			Decisionbase (DB) Diagnosis (n = 592)	
Paraphilia groups	Frequency	Percent of total sample	Frequency	Percentage of sample with a completed DB
Pedophilia group	227	24.0	146	24.7
Courtship	31	3.3	25	4.2
Fetishist	13	1.4	11	1.9
Sado-masochism	15	1.6	12	2.3
Other paraphilias	19	2.0	11	2.0
None	549	58.2	317	60.7
Total	944	100	592	100

Table 3.7

Frequency of pedophilia diagnosis (clinician) within each SSPI-2 score (n = 570)

SSPI-2	Pedophilia (n = 570)		Any anxiety clinician diagnosis (n = 570)		Any anxiety Decisionbase diagnosis (n = 346)	
	Yes	Percentage	Yes	Percentage	Yes	Percentage
0	16	18.2	9	10.2	10	19.6
1	42	24.4	14	8.1	17	15.7
2	50	34.7	13	9.0	26	31.2
3	38	39.2	9	9.3	16	30.2
4-5	53	76.8	15	21.7	22	43.1

Table 3.8

DSFI subscale V and VI mean scores

SSPI-2 scores	GSI			ABI		
	n	Mean^a	SD	n	Mean^b	SD
0	76	0.52	0.48	76	0.19	0.27
1	139	0.53	0.56	139	0.17	0.25
2	122	0.68	0.63	122	0.15	0.27
3	68	0.69	0.66	66	0.14	0.26
4 -5	60	0.95	0.84	59	0.07	0.28

**GSI = General Symptoms Index; ABI = Affect Balance Scale*

^aPossible scores for the GSI range from 0.00 to 4.00

^bPossible scores for the ABI range from -4.00 to 4.00

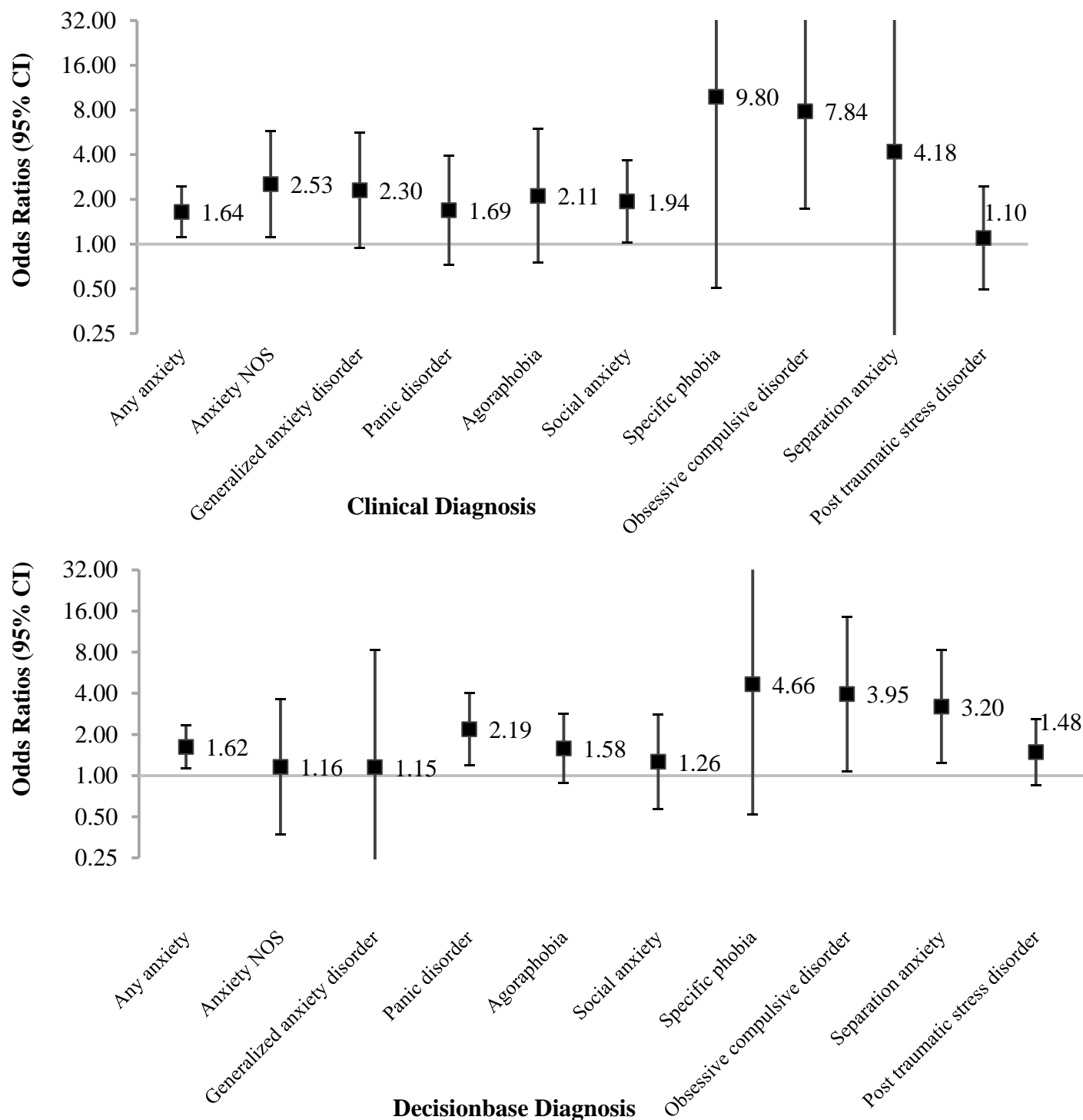


Figure 3.1:

Top – Odds ratios comparing paraphilic and non-paraphilic men on the clinical diagnosis of anxiety sub-types.

Bottom – Odds ratios comparing paraphilic and non-paraphilic men on Decisionbase diagnosis of anxiety sub-types

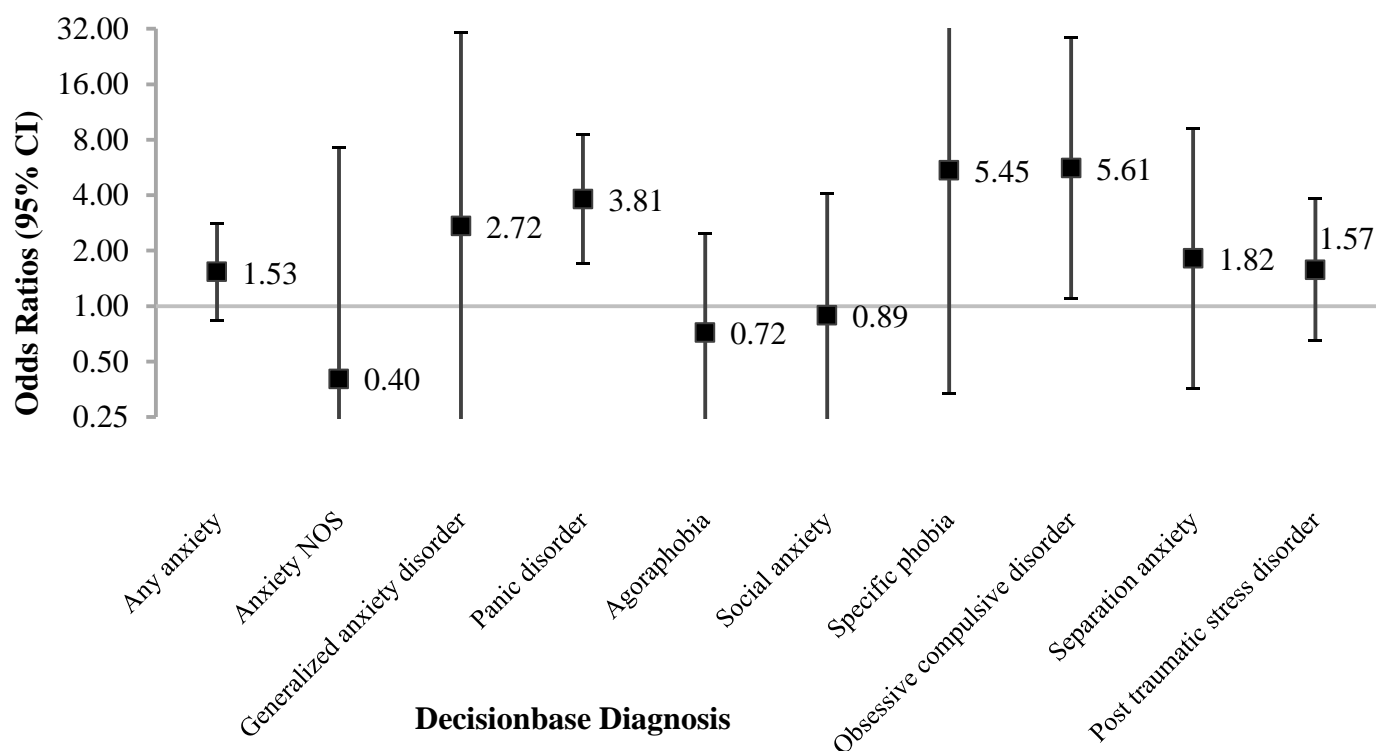
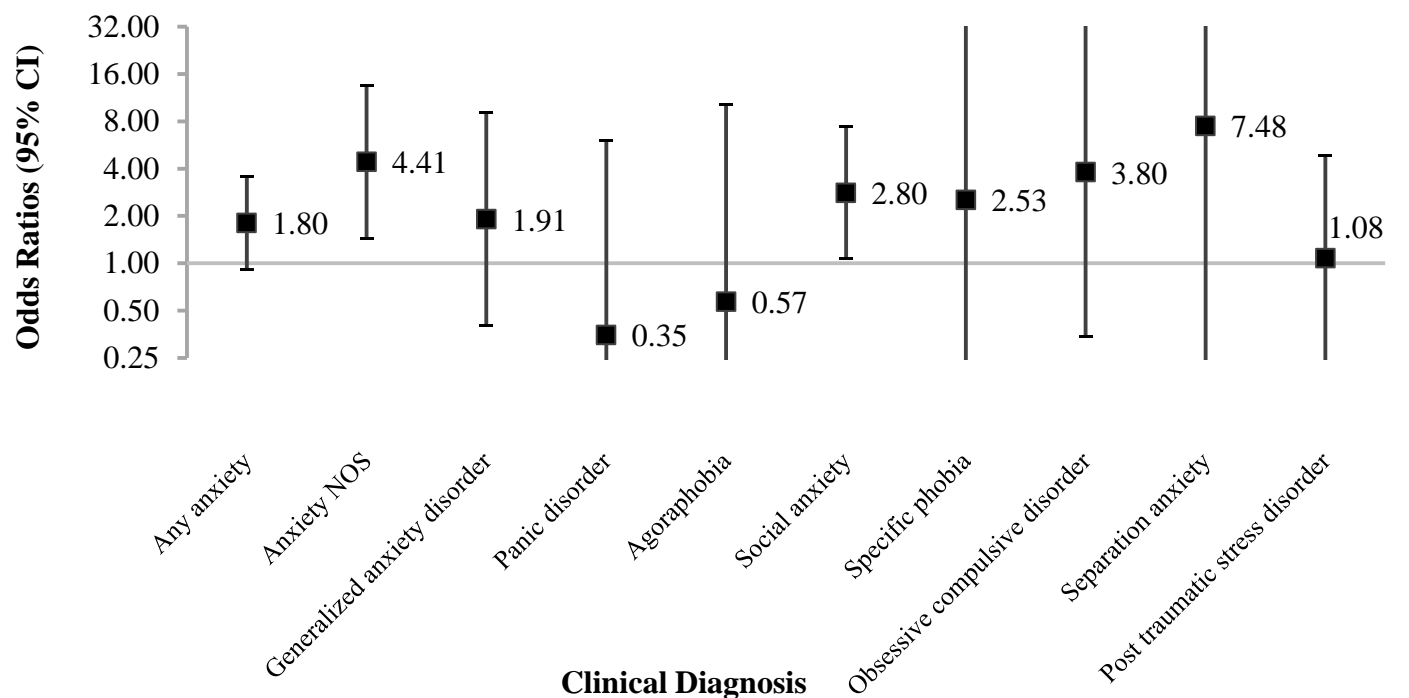


Figure 3.2:

Top – Odds ratios comparing men with a courtship paraphilia and men without a paraphilia on the clinical diagnosis of anxiety sub-types.

Bottom – Odds ratios comparing men with a courtship paraphilia and men without a paraphilia on Decisionbase diagnosis of anxiety sub-types.

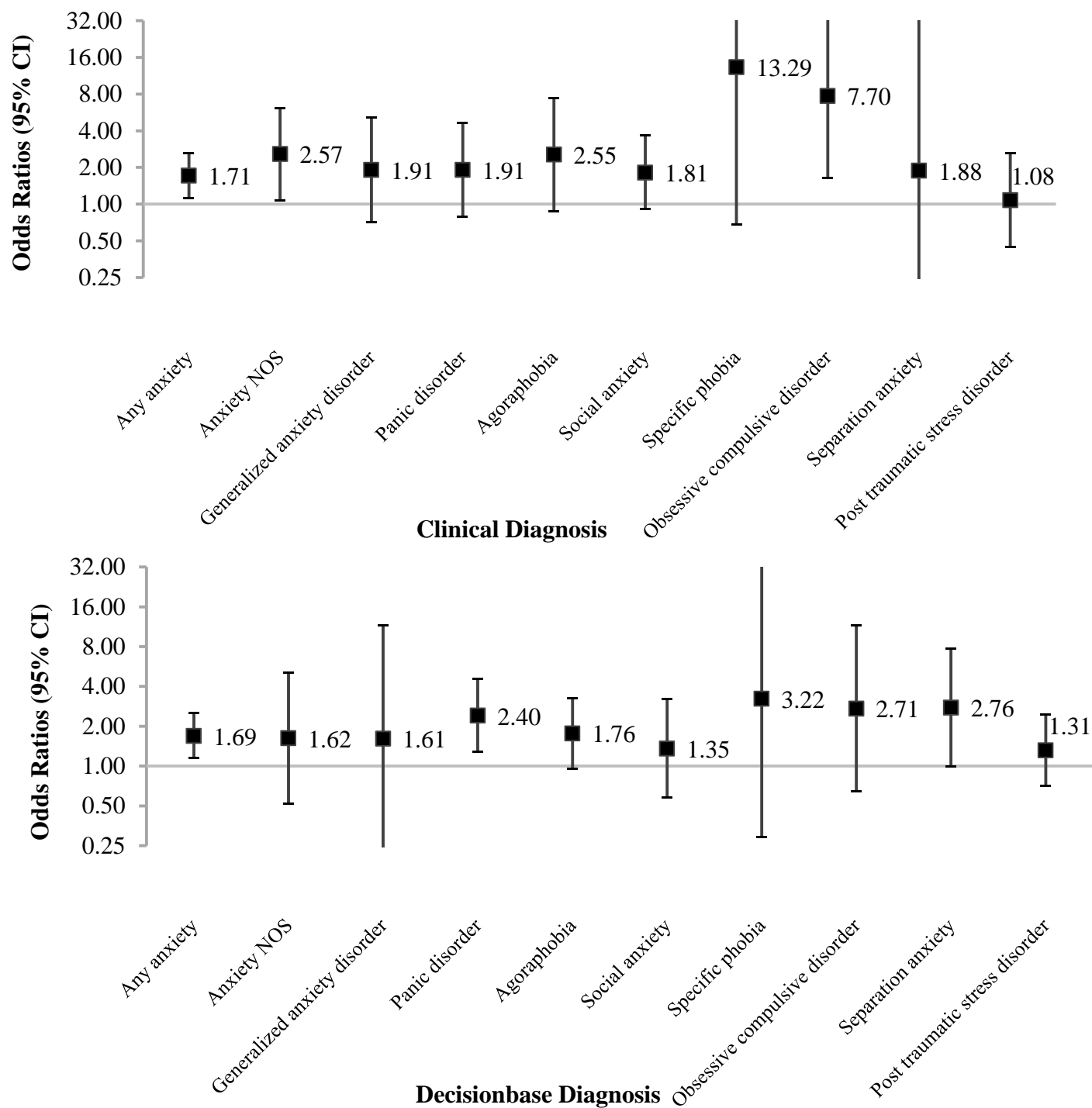


Figure 3.3:

Top – Odds ratios comparing men with pedophilia and men without a paraphilia on clinical diagnosis of anxiety sub-types.

Bottom – Odds ratios comparing men with pedophilia and men without a paraphilia on Decisionbase diagnosis of anxiety sub-types.

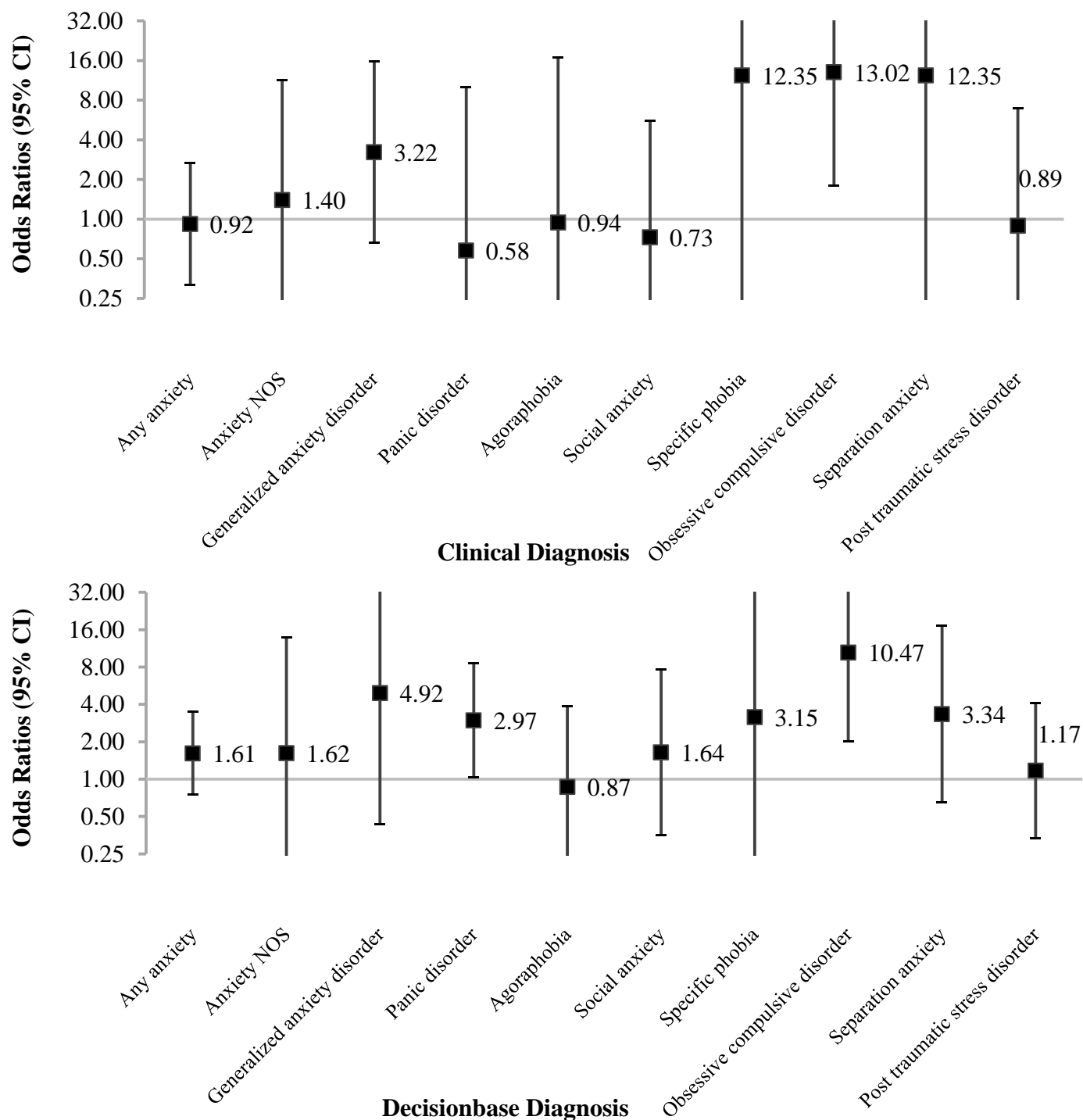


Figure 3.4:

Top – Odds ratios comparing men with a fetishistic paraphilia and men without a paraphilia on clinical diagnosis of anxiety sub-types.

Bottom – Odds ratios comparing men with a fetishistic paraphilia and men without a paraphilia on Decisionbase diagnosis of anxiety sub-types.

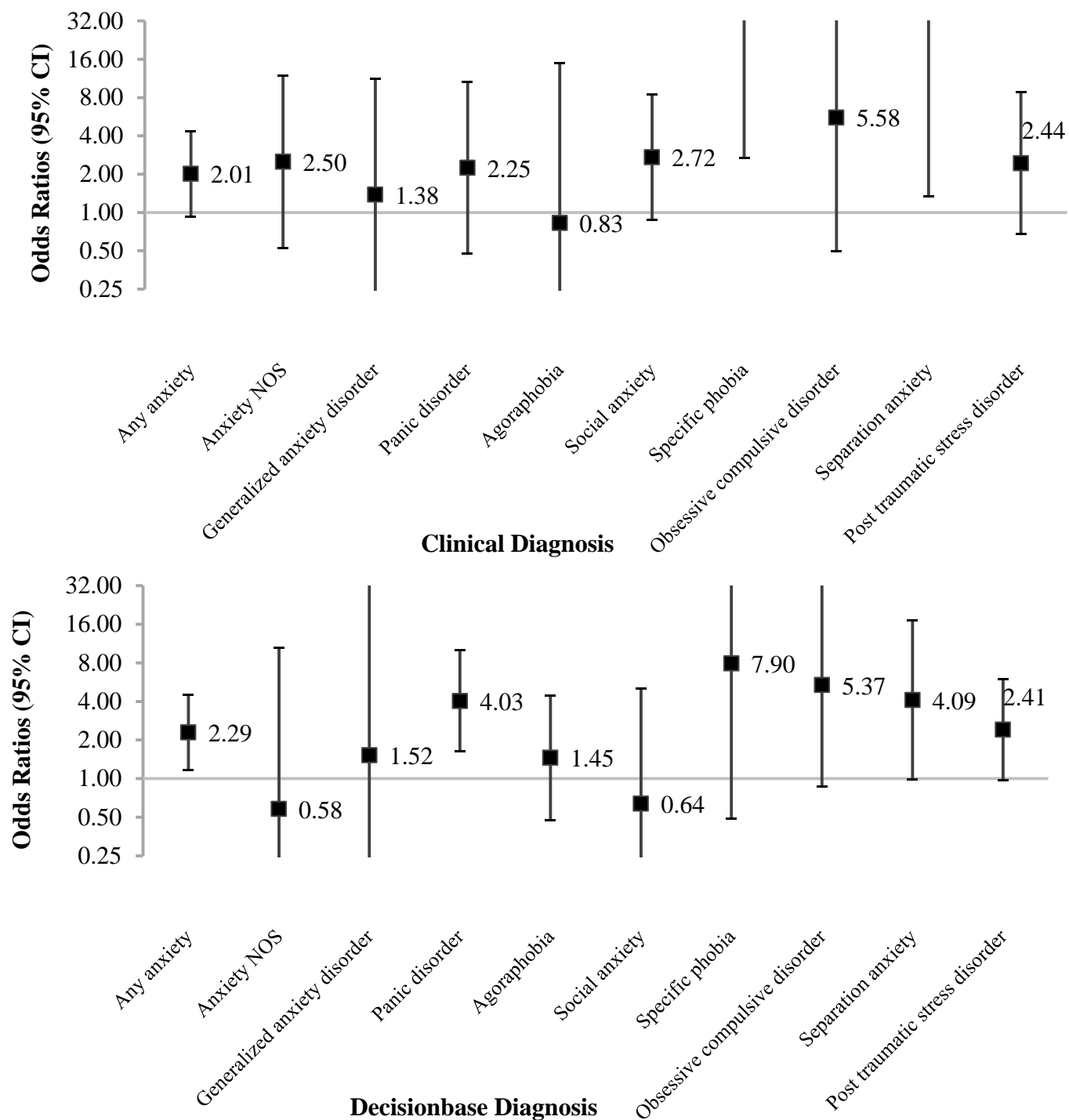


Figure 3.5:

Top – Odds ratios comparing men with a sadomasochistic paraphilia and men without a paraphilia on clinical diagnosis of anxiety sub-types.

Bottom – Odds ratios comparing men with a sadomasochistic paraphilia and men without a paraphilia on Decisionbase diagnosis of anxiety sub-types.

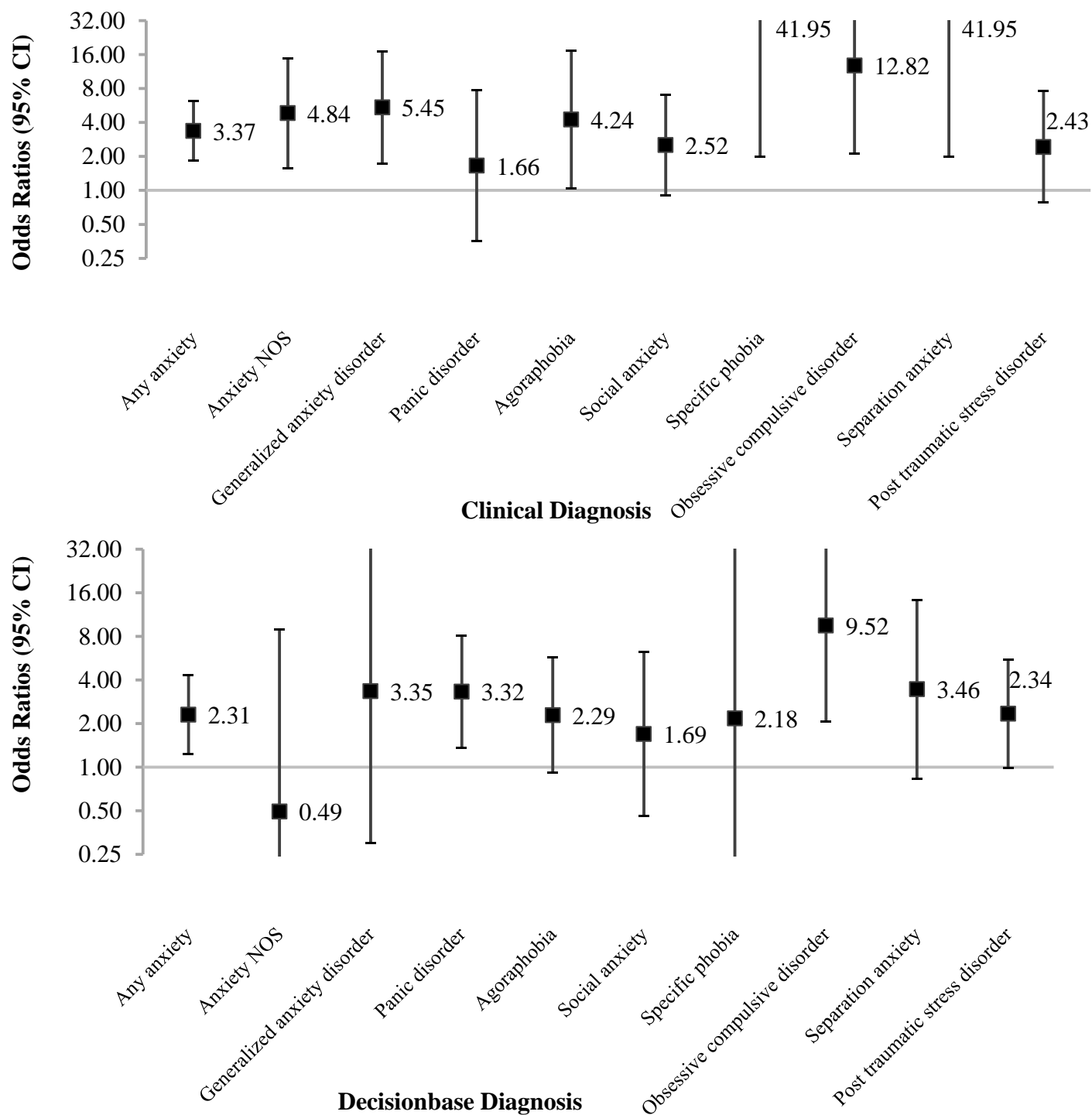


Figure 3.6:

Top – Odds ratios comparing men with other paraphilias (necrophilia, coprophilia, urophilia, zoophilia, and paraphilia NOS) and men without a paraphilia on clinical diagnosis of anxiety sub-types.

Bottom – Odds ratios comparing men with other paraphilias (coprophilia, urophilia, and paraphilia NOS) and men without a paraphilia on Decisionbase diagnosis of anxiety sub-types.

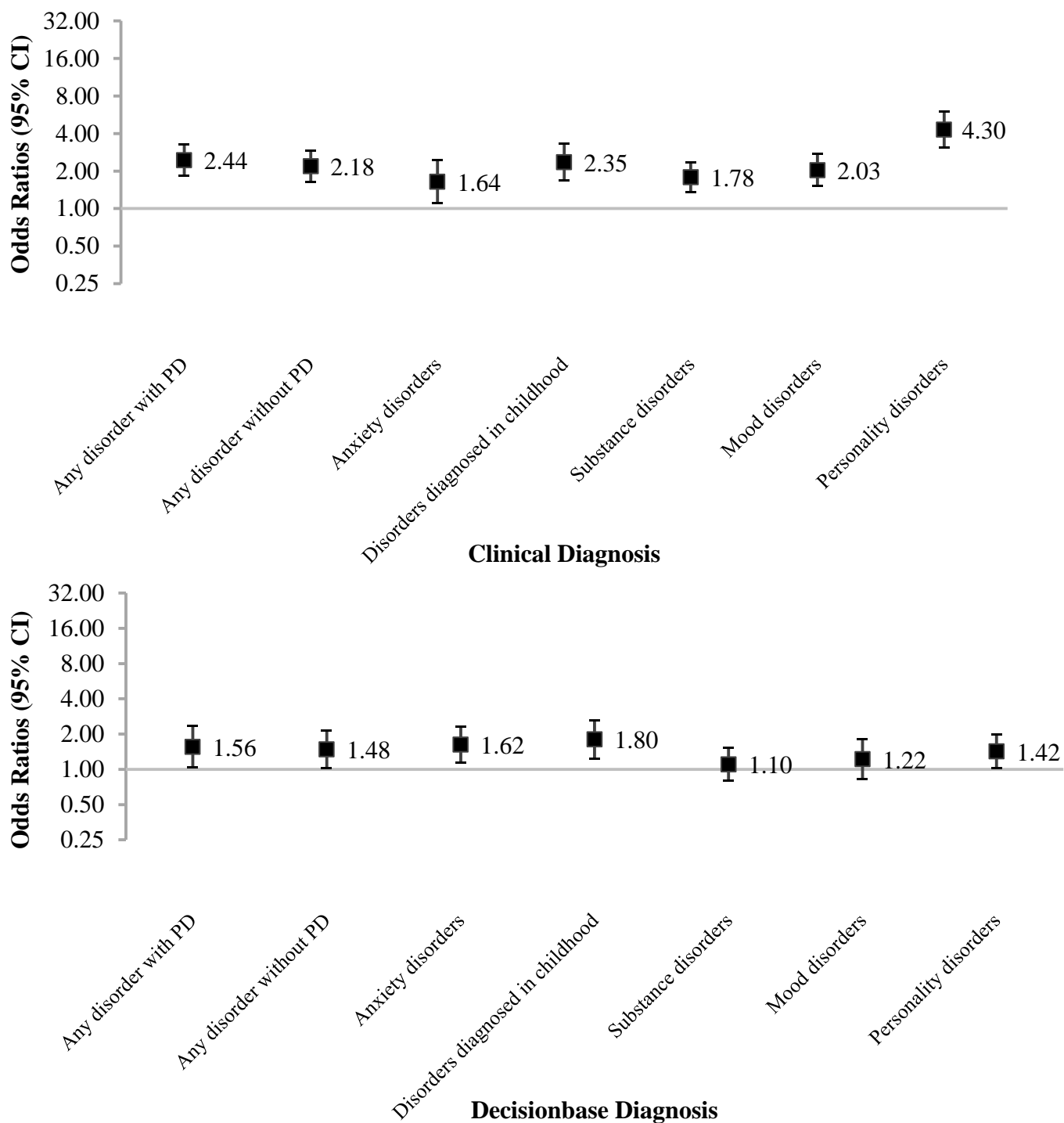


Figure 3.7:

Top – Odds ratios comparing men with a paraphilia diagnosis and men without on clinical diagnosis of the major disorder categories

Bottom – Odds ratios comparing men with a paraphilia diagnosis and men without on Decisionbase diagnosis of the major disorder categories.

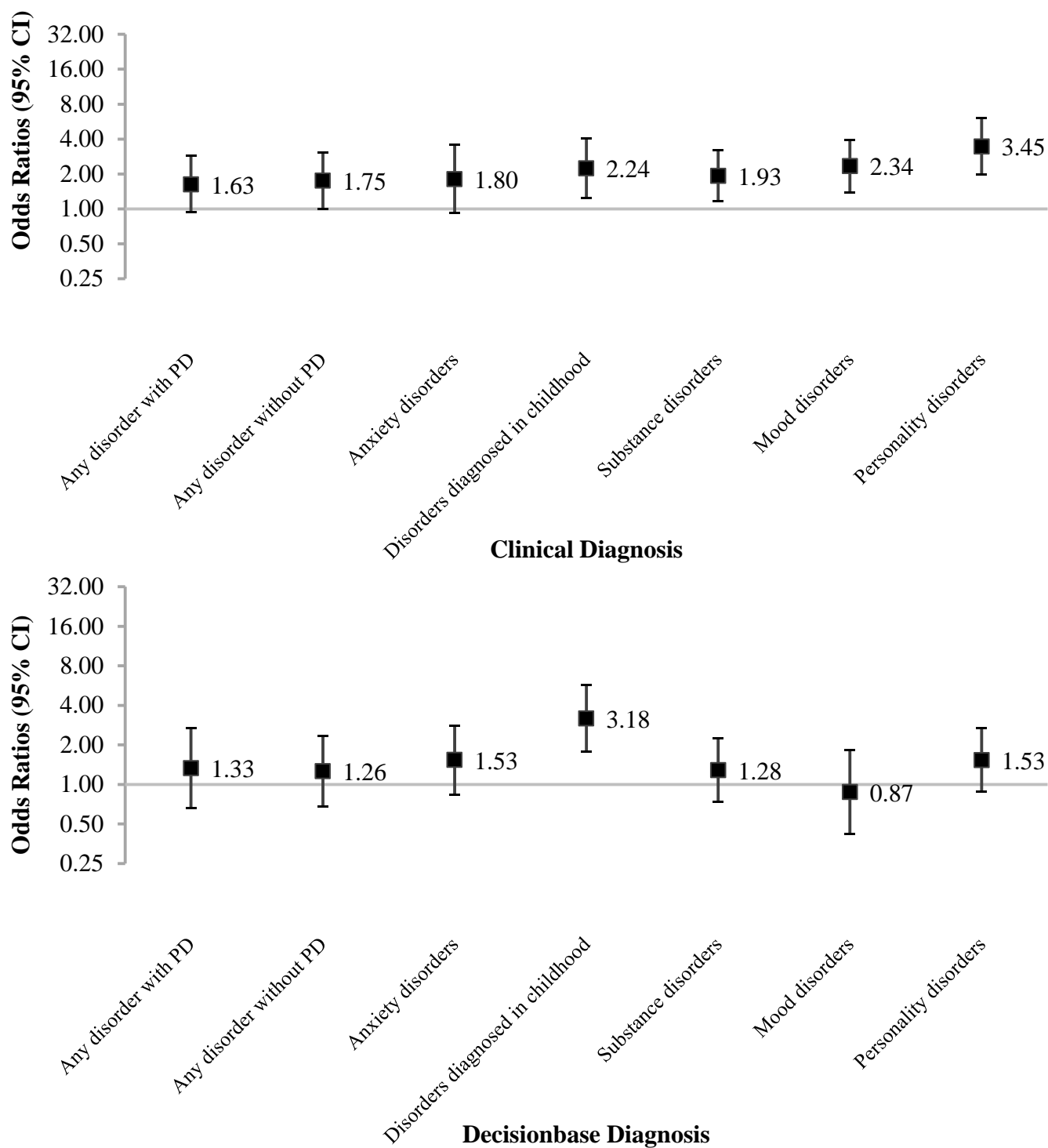


Figure 3.8:

Top – Odds ratios comparing men with a courtship paraphilia and men without a paraphilia on clinical diagnosis of the major disorder categories.

Bottom – Odds ratios comparing men with a courtship paraphilia and men without a paraphilia on Decisionbase diagnosis of the major disorder categories.

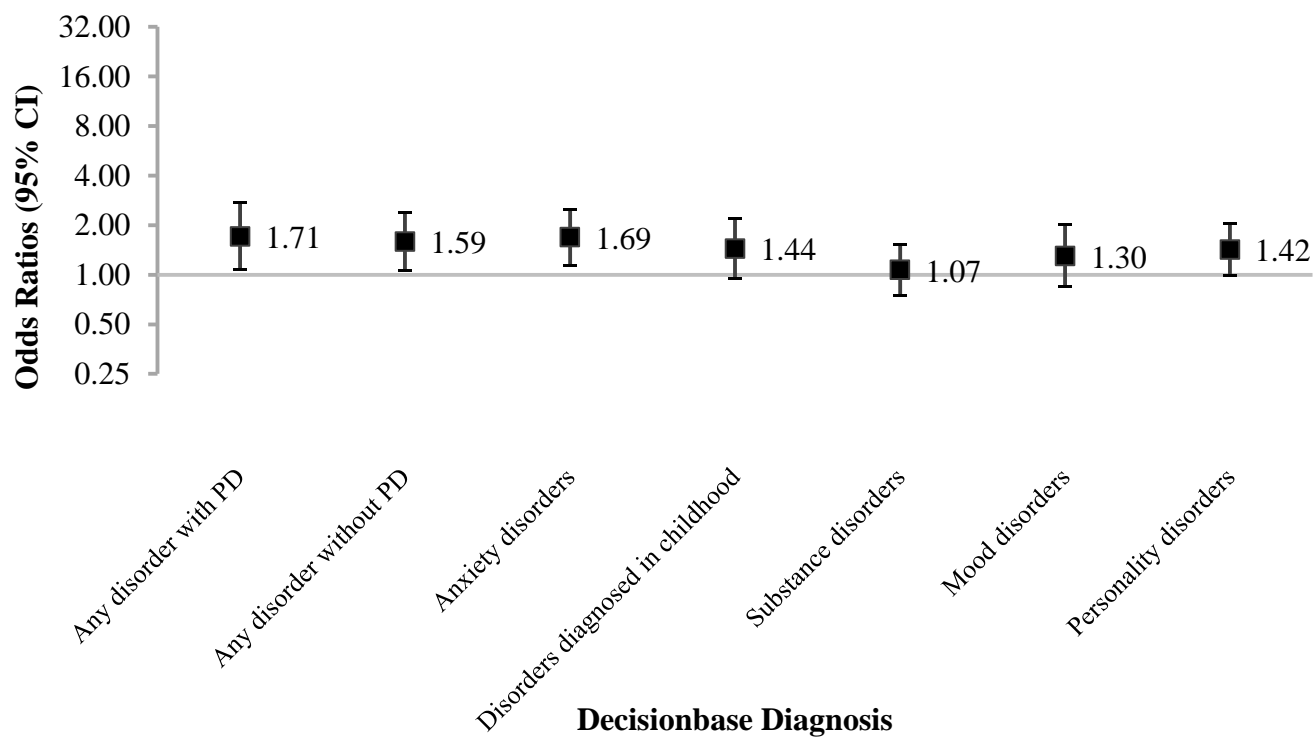
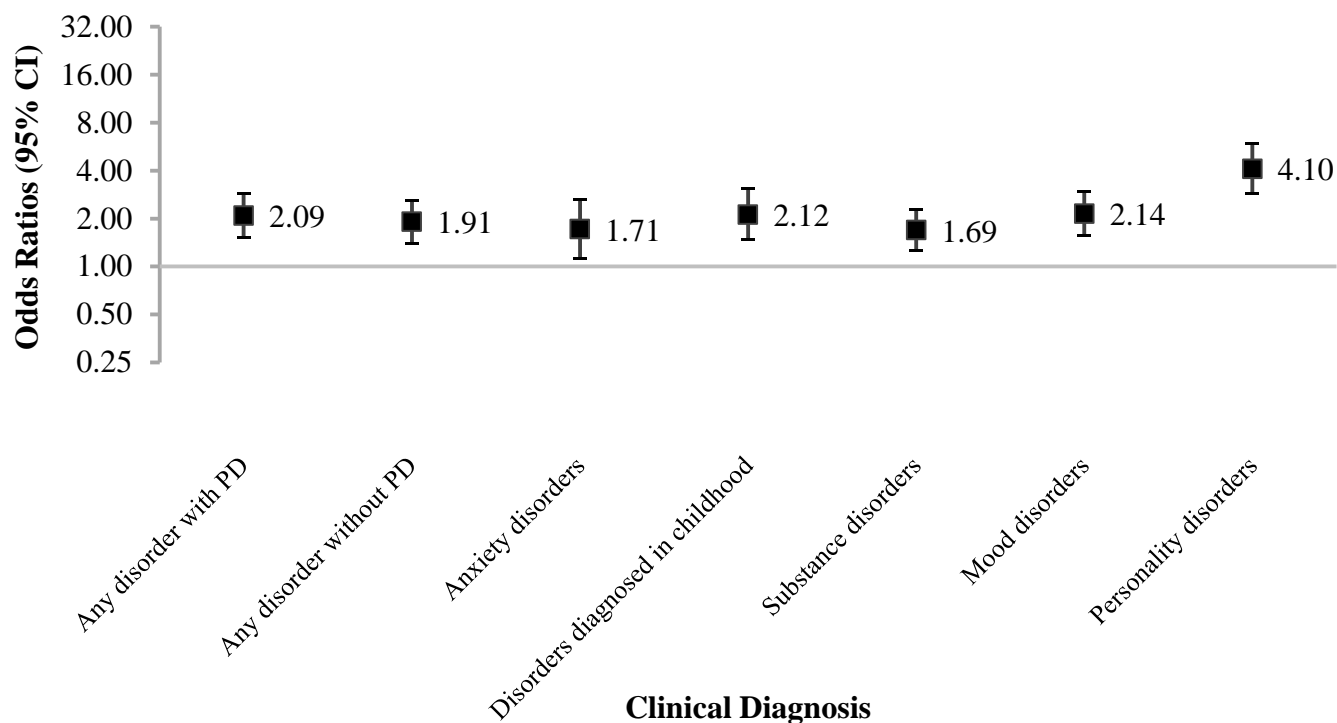


Figure 3.9:

Top – Odds ratios comparing men with pedophilia and men without a paraphilia on clinical diagnosis of the major disorder categories.

Bottom – Odds ratios comparing men with pedophilia and men without a paraphilia on Decisionbase diagnosis of the major disorder categories.

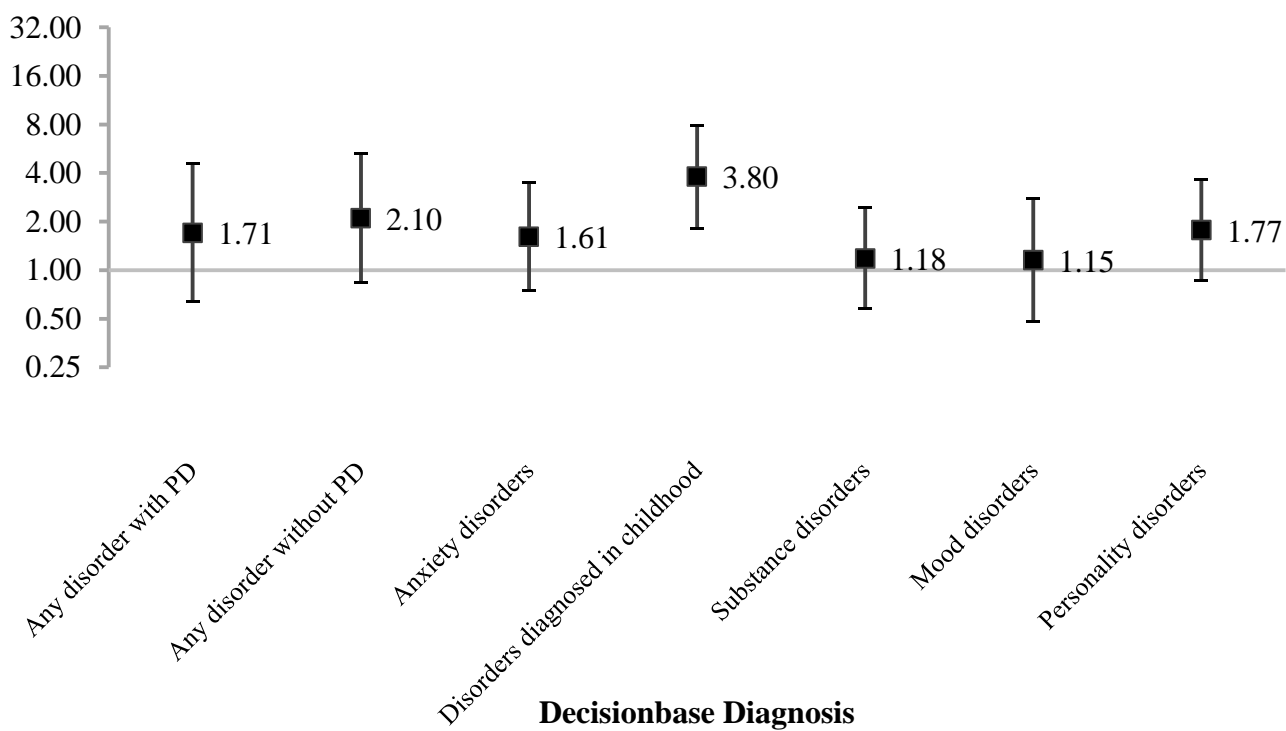
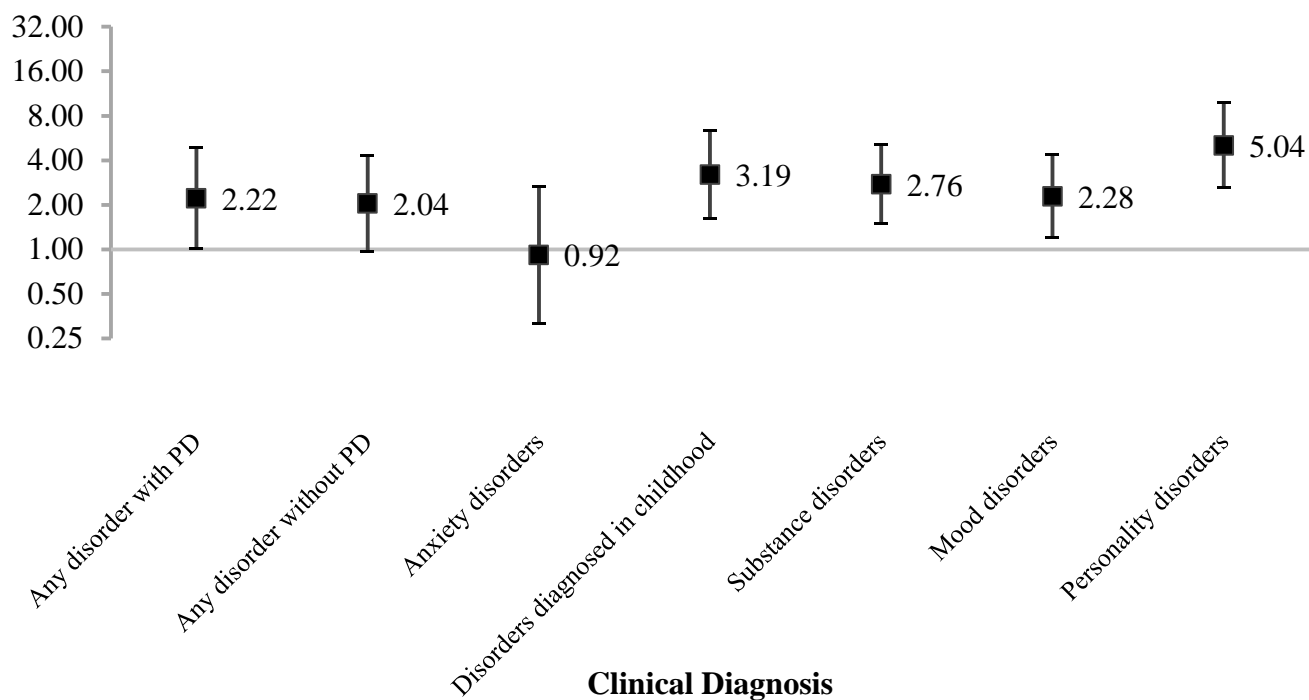


Figure 3.10:

Top – Odds ratios comparing men with a fetishistic paraphilia and men without a paraphilia on clinical diagnosis of the major disorder categories.

Bottom – Odds ratios comparing men with a fetishistic paraphilia and men without a paraphilia on Decisionbase diagnosis of the major disorder categories.

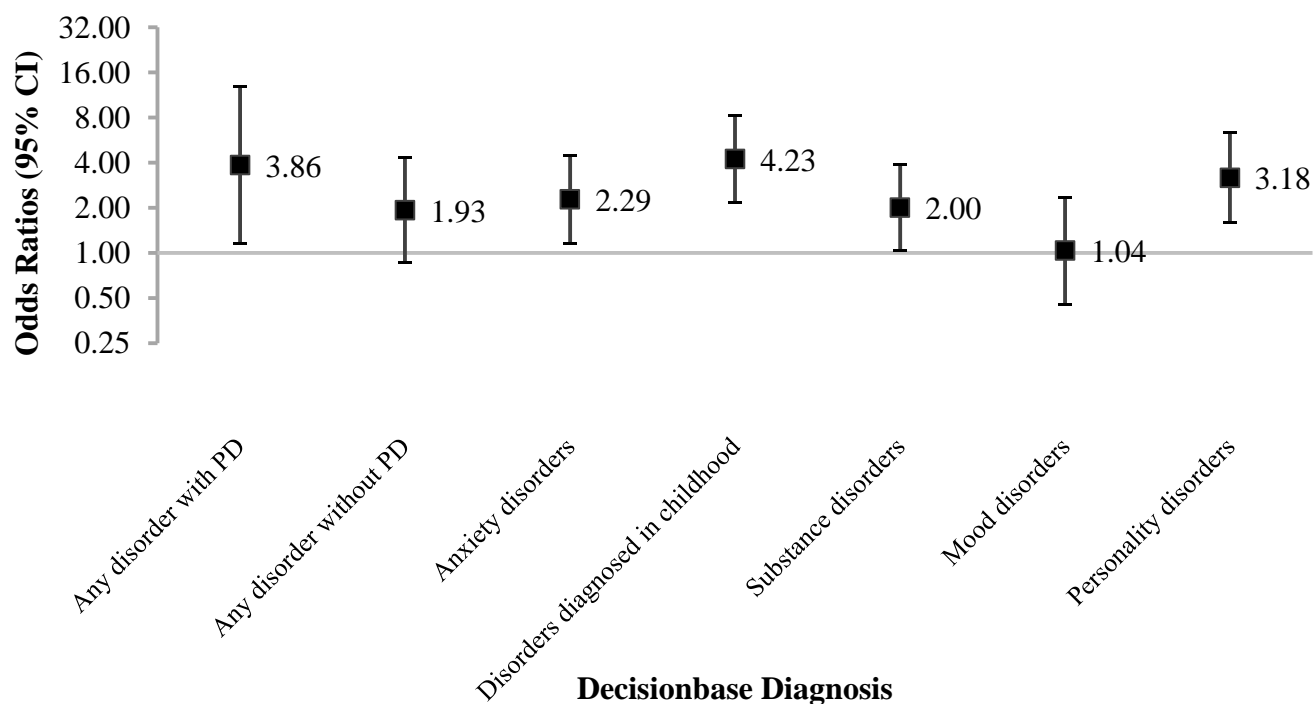
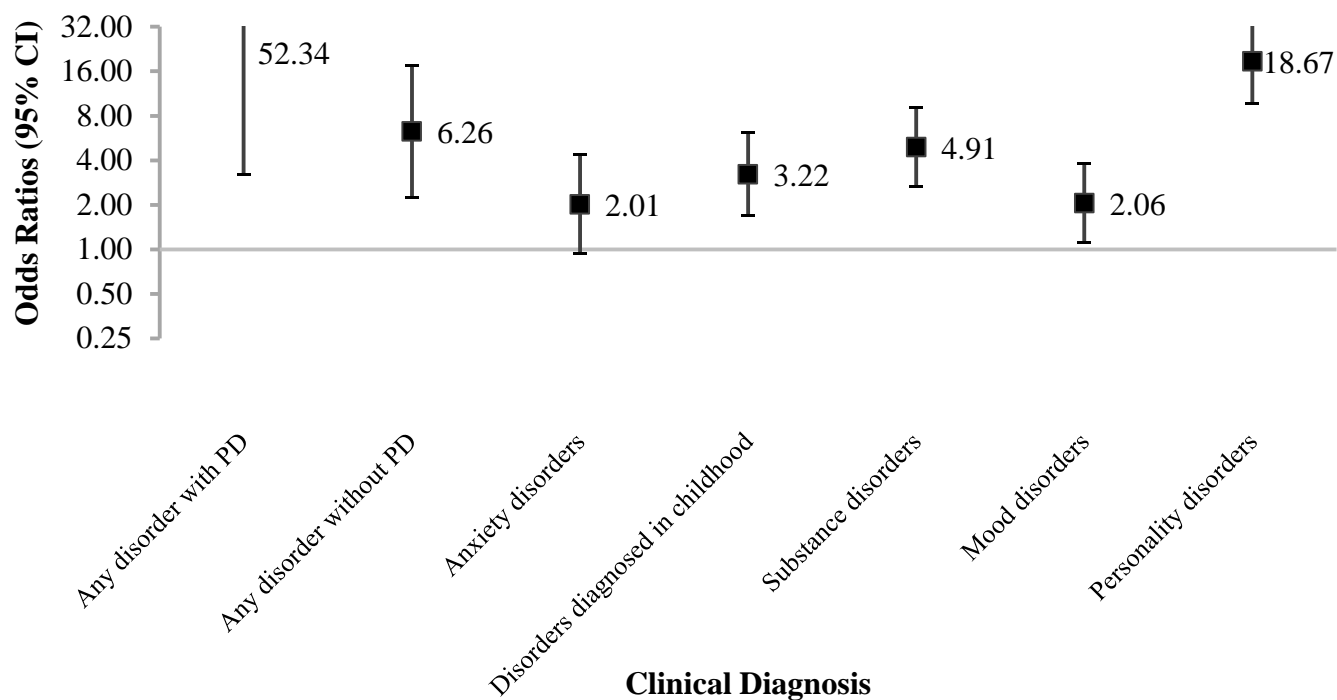


Figure 3.11:

Top – Odds ratios comparing men with a sadomasochistic paraphilia and men without a paraphilia on clinical diagnosis of the major disorder categories.

Bottom – Odds ratios comparing men with a sadomasochistic paraphilia and men without a paraphilia on Decisionbase diagnosis of the major disorder categories.

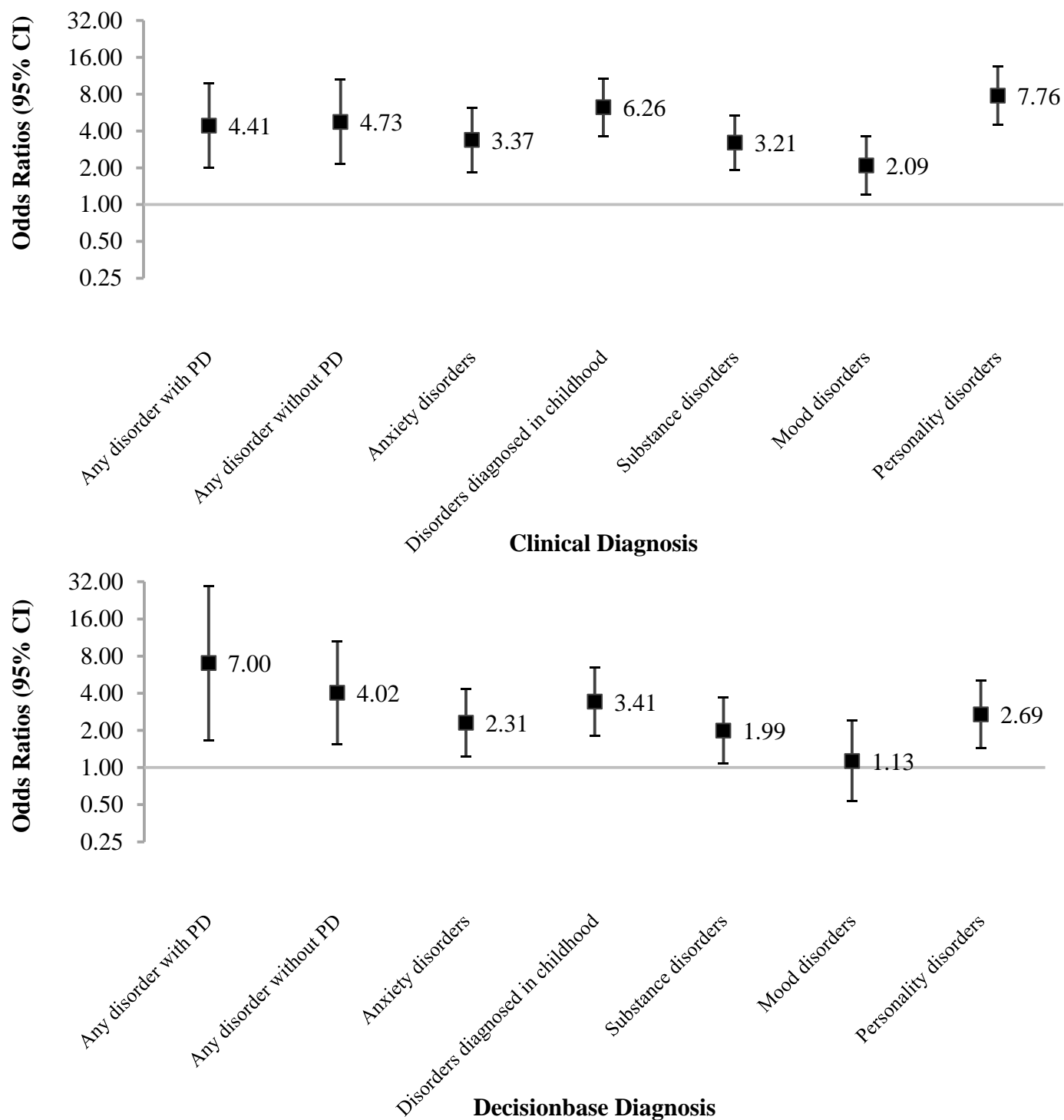


Figure 3.12:

Top – Odds ratios comparing men with another paraphilia and men without a paraphilia on clinical diagnosis of the major disorder categories.

Bottom – Odds ratios comparing men with another paraphilia and men without a paraphilia on Decisionbase diagnosis of the major disorder categories.

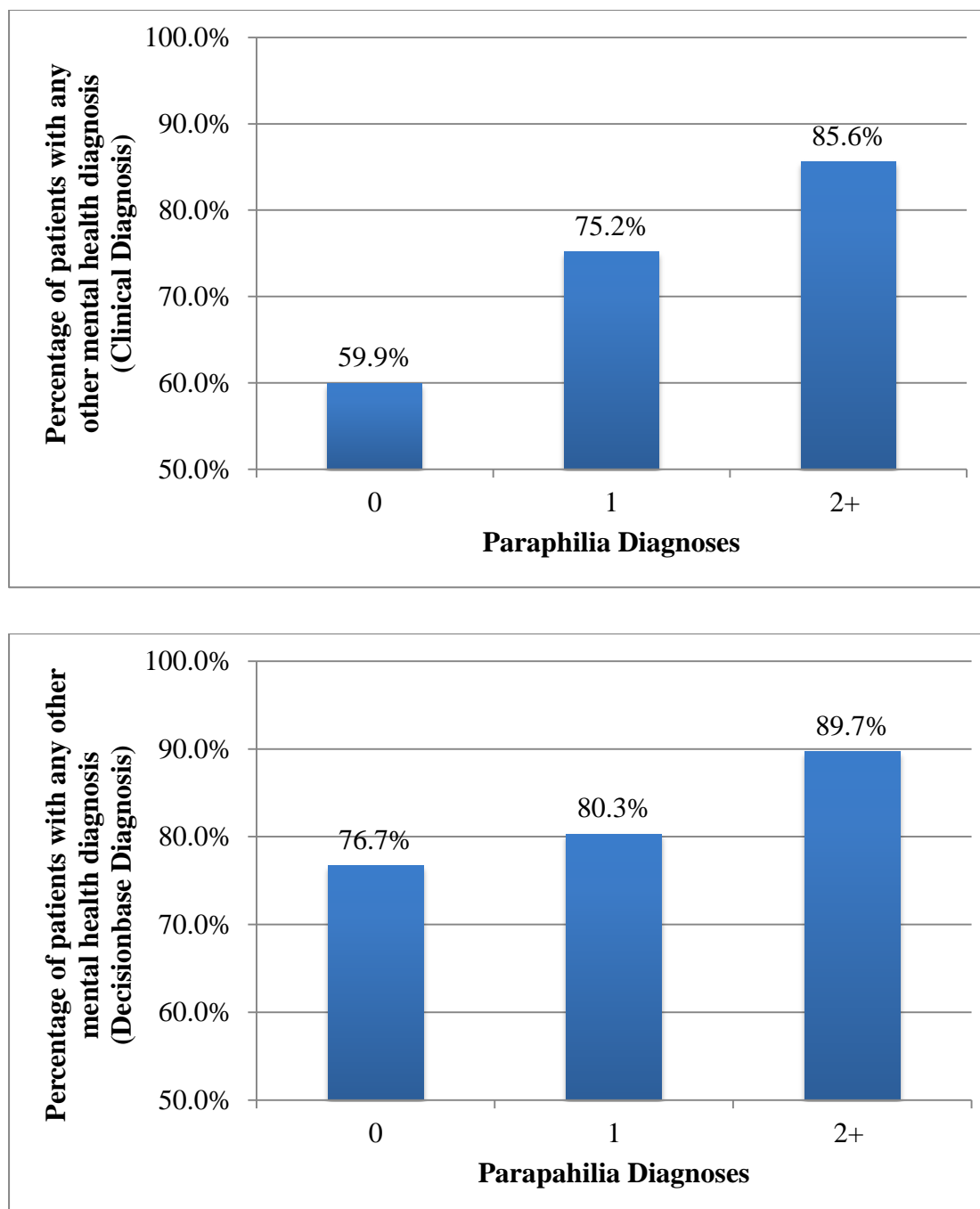


Figure 3.13:

Top – Percentage of patients with a clinical diagnosis of a psychological disorder in relation to the number of comorbid paraphilia diagnoses.

Bottom – Percentage of patients with a Decisionbase diagnosis of a psychological disorder in relation to the number of comorbid paraphilia diagnoses.

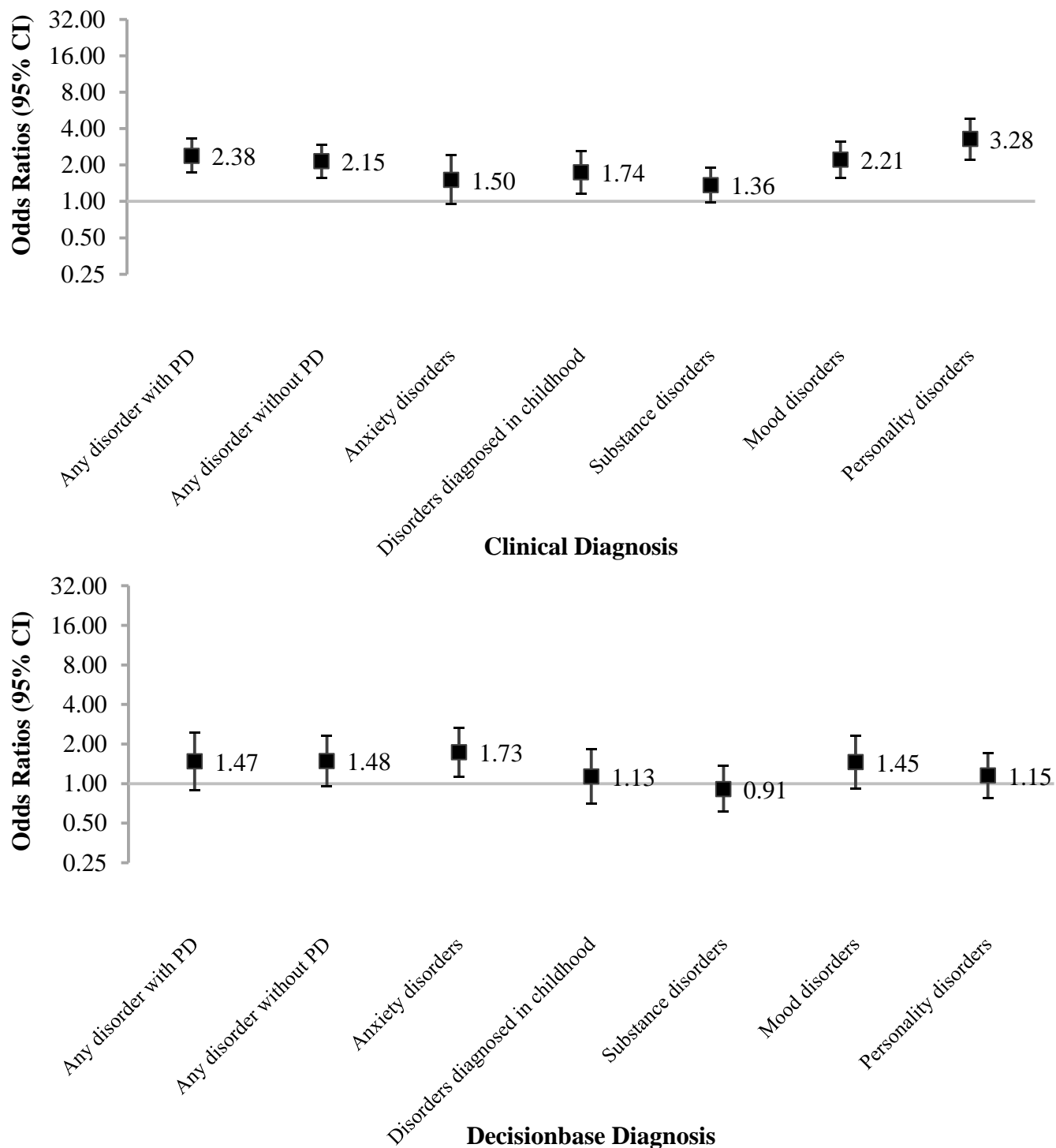


Figure 3.14:

Top – Odds ratios comparing men with a pedophilia group only diagnosis and men without a paraphilia on clinical diagnosis of the major disorder categories.

Bottom – Odds ratios comparing men with a pedophilia group only diagnosis and men without a paraphilia on Decisionbase diagnosis of the major disorder categories.

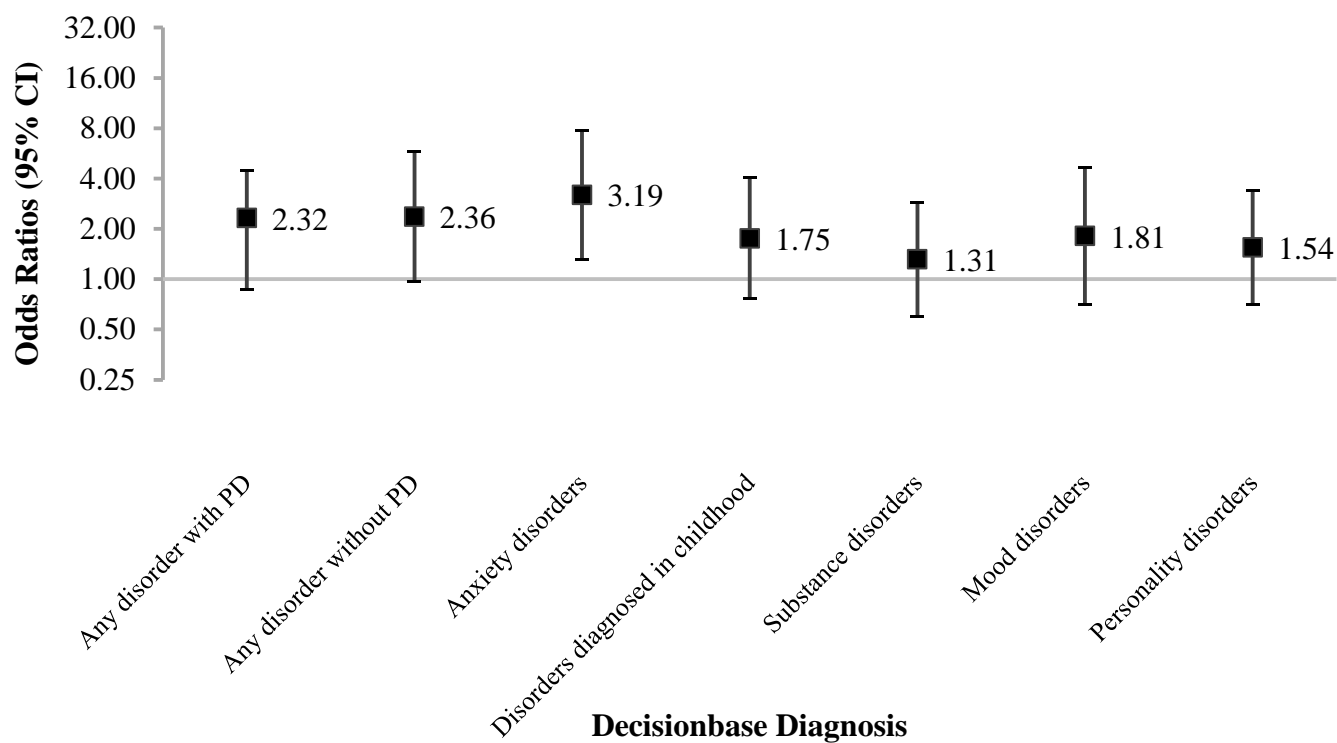
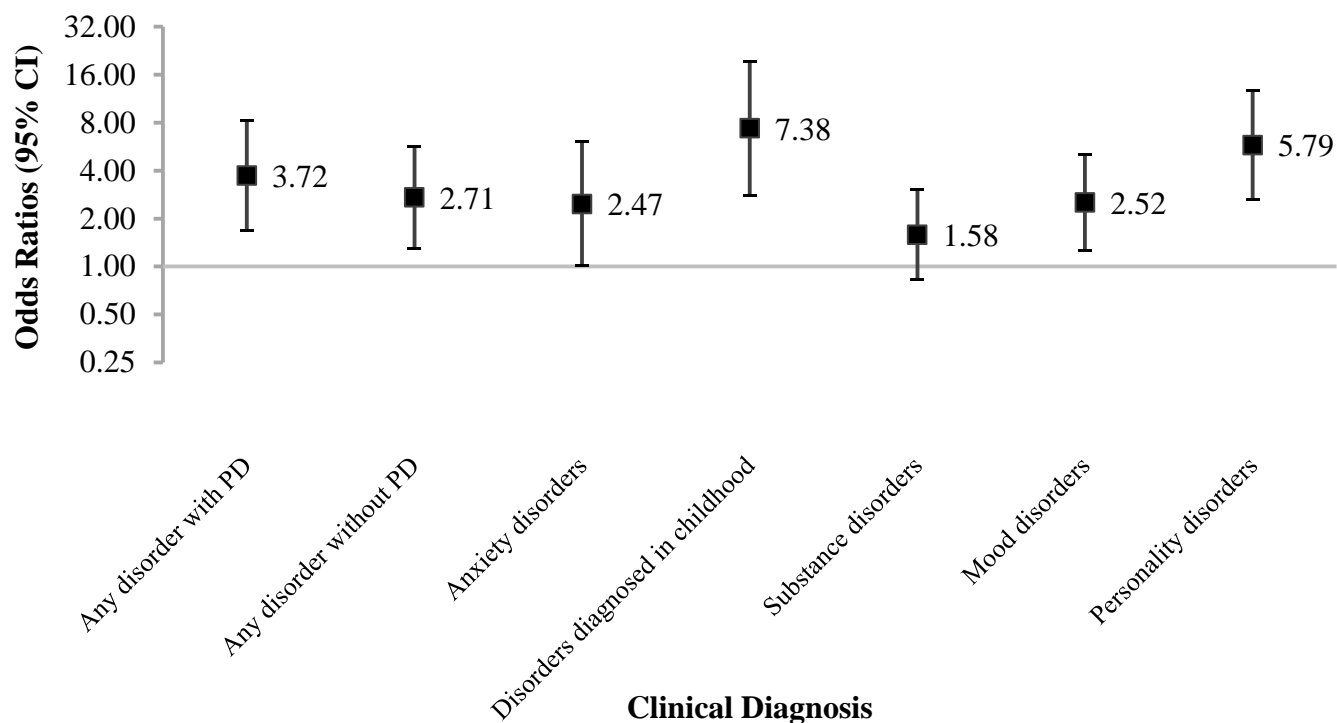


Figure 3.15:

Top – Odds ratios comparing men with a score of 4-5 on the SSPI-2 and men with a score of 0 on clinical diagnosis of the major disorder categories.

Bottom – Odds ratios comparing men with a score of 4-5 on the SSPI-2 and men with a score of 0 on Decisionbase diagnosis of the major disorder categories.

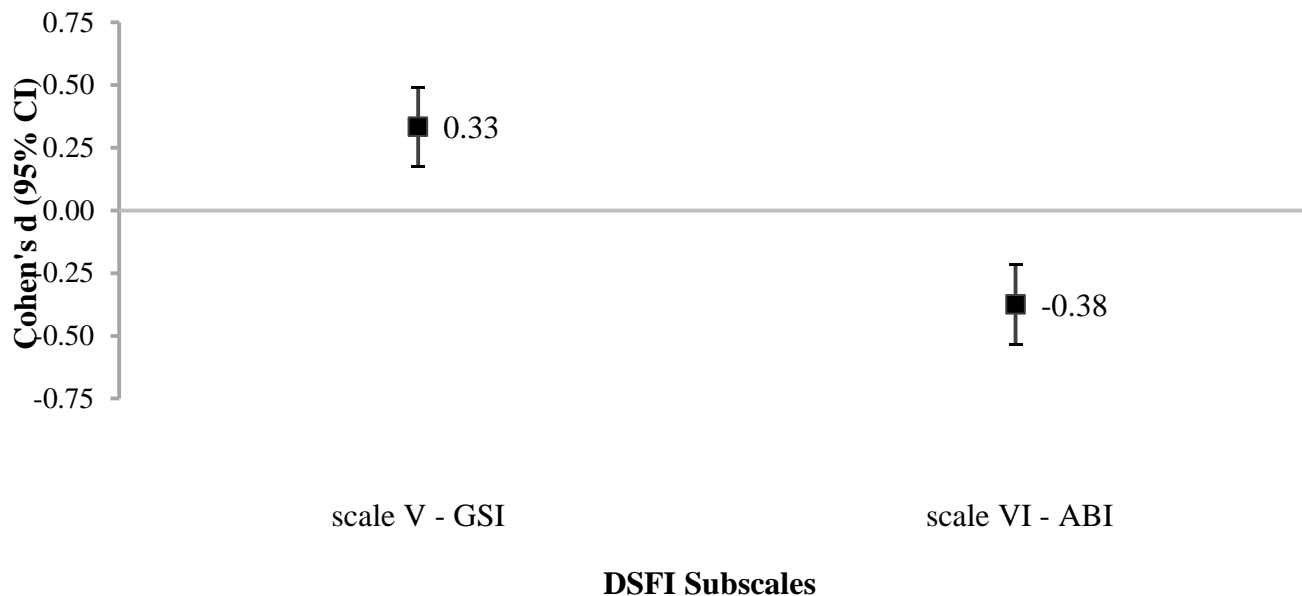


Figure 3.16:

Cohen's *d* comparing men with a paraphilia and men without a paraphilia on total scores of the psychological symptoms subscale (GSI) as well as the affect subscale (ABI) of the DSFI.

CHAPTER 4
GENERAL DISCUSSION

The objective of this dissertation was to further our understanding of the paraphilias by examining whether or not there is a link with other psychological disorders, more specifically anxiety, in men. Chapter 2 consisted of a meta-analysis examining the link between paraphilias and mental health, more specifically anxiety. Chapter 3 was a large-scale psychiatric file review examining this link with a large sample size. It was hypothesised that if anxiety has a role to play in the development of paraphilic interests, men with paraphilias would have greater odds of also having an anxiety disorder than men without paraphilias. The results indicated that there was indeed a tendency for men with paraphilias to have higher odds of having many different psychological disorders than men without paraphilias. Contrary to the hypothesis, this tendency was not specific to anxiety. Taking into account that there were variations between the different categories of psychological disorders, and the different subtypes of paraphilias, overall there was a general association between paraphilias and psychological disorders. In this chapter I discuss the implications of these results for the etiological theories presented in Chapter 1; I also discuss possible reasons for the general comorbidity of paraphilias and psychological disorders, and present some directions for future research.

Implications for Theories on the Development of the Paraphilias

Anxiety disorders have been described as contributing (or at least correlated) factors in some of the etiological theories presented in the General Introduction of this thesis (e.g. Balyk and Kafka). The results of the two studies have implications for these theories.

Balyk's (1997) theory, that linked the development of paraphilias to OCD, would in part be supported by the results of this thesis. Balyk argued that paraphilias had content specific rituals and well defined mental or behavioural sequences similar to OCD. In the file review study (Chapter 3), OCD was looked at separately, and the odds of having OCD were consistently

higher for men with a paraphilia than men without a paraphilia. This was independent of the sub-type of paraphilia or the method of evaluating OCD (self-report vs. clinician diagnosis). Furthermore, when looking at all the paraphilias, OCD had the highest OR that did not include 1.0 in the 95% CI. What is not explained by Balyk's theory is the generalised link between paraphilias and mental health as well as the gender difference in the prevalence of paraphilias. Other than OCD, Balyk's theory does not provide insight into why paraphilias appear to have a relationship with many psychological disorders. In the file review study, since both paraphilic and non paraphilic group came from the same clinical population, it is unlikely that the generalized relationship with mental health disorders be a result of the population type. Furthermore, Balyk's theory also does not explain why men would be more susceptible than women to the biochemical changes in the brain resulting in the creation of the Sexual-Erotic Arousal Patterns—the template of behaviour imprinted in memory. This would imply that the mechanism of development would be the same for both men and women and that no gender differences should be present.

Kafka's (1997) monoamines hypothesis could potentially explain the generalized relationship between paraphilias and psychological disorders. He argued that due to the effects of medication affecting monoamine transmitters on anxiety, impulsivity, depression, and sexual arousal, these neurotransmitters may play a role in the development of paraphilic interests. Monoamines oxidase genes have been linked to multiple psychological disorders including attention deficit hyperactivity disorder (Jiang et al., 2001), mood disorders (Lin et al., 2000), as well as borderline personality disorder (Ni et al., 2007), and anti-social personality disorder (Checknita et al., 2015). If the monoamines oxidase genes are involved in both paraphilias as well as many other psychological disorders, they could explain the general relationship that was

found. However, this theory does not address the gender differences in the prevalence of paraphilias. If monoamines are involved in the development of paraphilic interests it could be argued that a gender difference should not be as significant as what is being observed. Additional research would need to be conducted looking at the relationship between paraphilias and monoamines in order to further understand their role in the development of paraphilic interests and other psychological disorders.

Lastly, the anxiety-sexual arousal hypothesis is also partially supported by the results of this thesis. This hypothesis links paraphilias to anxiety (in general), by arguing that anxiety tends to potentiate sexual arousal in men and inhibits sexual arousal in women, therefore men but not women would be more at risk of developing paraphilic interest—if paraphilic images, thoughts, and fantasies are anxiety provoking. As observed in both studies, men with a paraphilias have higher odds of also having an anxiety disorder than men without a paraphilia. That being said, this theory does not explain the generalized relationship with psychological disorders as it only focuses on the role of anxiety in sexual arousal. Furthermore, the gender-specific effect of anxiety on sexual arousal that I described in Chapter 1 is not always found. Kane et al. (2019) very recently conducted a literature review on the effects of anxiety on sexual response and found mixed results. They reported that, in both men and women, anxiety sometimes facilitates sexual arousal, sometimes inhibits it, and sometimes has no effect. For women, the majority of studies found that anxiety decreased sexual arousal. The authors suggested that the mixed results are in part due to how anxiety is conceptualized within each study and the type of anxiety provoking stimuli that is utilized. Seto (1992) similarly argued that the way anxiety is operationalized affects the outcome of the relationship between anxiety and sexual arousal. In the file review study, the measure of anxiety consisted of clinical diagnoses

which might affect sexual arousal differently than other conceptualizations. Knowing that anxiety is contextual and can fluctuate within individuals (Vasey & Dadds, 2001), the conceptualization used within the presented studies might not capture the type of anxiety that might be related to the development of paraphilic interests.

What Might Be the Nature of the Relationship Between Paraphilias and Psychological Disorders?

Although the two studies both demonstrated a general link between paraphilias and psychological disorders, the control-case design used in these studies cannot explain the nature of that relationship. There are at least five possible explanations for this link:

1) *It could be a coincidence (or by-product).* Individuals receiving a psychiatric evaluation of their atypical sexual behaviours may believe that because they have a paraphilia there must be something wrong with them, and therefore endorse more symptoms of other psychological disorders. This was seen in the meta-analysis for certain disorders—Psychotic disorders and Personality disorders. Individuals with a paraphilia who self-reported their mental health symptoms had higher odds of also having a Psychotic disorder or a Personality disorder than individuals without a paraphilia. The opposite relationship was seen with clinician diagnoses. Similarly, a clinician who is evaluating a patient who reports atypical sexual behaviours may perceive more psychological disorder symptoms within this individual, which would in turn also explain a general relationship with psychological disorders. In order to control for this possible bias, a study could be conducted in the general population where individuals may be less likely to relate their atypical sexual behaviours to mental health. Looking at rates of paraphilia in a general psychiatric sample would also provide relevant information.

2) *Having a paraphilia may lead to the development of other psychological disorders.*

One could hypothesize that because paraphilias are perceived as taboo by society, this could cause distress to an individual who experiences sexual attraction towards unusual targets or activities. This has been discussed to be the case for pedophilia in a literature review (Jahnke & Hoyer, 2013) and later shown to be the case in a two part survey (Jahnke, Imhoff, & Hoyer, 2015). The two surveys, one conducted within the German population and the other on the internet, revealed that participant's reactions to people with pedophilia was more negative than the other groups (e.g., people who abuse alcohol, sexual sadists, and people with antisocial tendencies). The anxiety that results from trying to hide these feelings of attraction can lead someone to isolate themselves for fear of being rejected or their sexuality being exposed. The isolation could, for example, lead to depressive symptoms or social anxiety, and over time a possible major depressive disorder or social anxiety disorder. The fear that their atypical sexual attractions might be exposed could result in the development of anxiety symptoms or even paranoia. A way to test this hypothesis would be to look at the timeline of development. When did the symptoms appear, which one came first? If the paraphilias precede the psychological disorders it could be argued that they might contribute to the development of the psychological disorders.

3) *Having a psychological disorder may lead to the development of paraphilias.* In

Chapter 3, I reported that childhood disorders were associated with paraphilias. It is possible, thus, that psychological symptoms would have been present prior to the development of atypical sexual interests, assuming that sexual interests develop (or become manifested) during puberty. This statement is limited by the fact that a child could display signs of psychological disorders

but would be very unlikely to display signs of or have the ability to engage in paraphilias during the pre-pubertal stage—paraphilias may simply be unexpressed until puberty.

The sexual interests of an individual who has an intellectual disability might not evolve with his biological age. Therefore, his sexual interest might remain at the prepubescent level. In this case, the psychological disorder (intellectual disability) would lead to the paraphilias (pedophilia). In the presented studies, paraphilic individuals had higher odds of having a childhood disorders. Aside from intellectual disability, this category also included ADHD and other impulse control disorders. A child who has difficulty controlling impulsive behaviours might engage in paraphilic activities to satisfy sexual urges at the time of puberty, leading to the development of atypical sexual interests. Likewise, the feeling provided by an orgasm can provide temporary relief to someone who is struggling with mental health difficulties. This has been suggested in some theories such as in Levine, Risen, and Althof's (1990) theory on paraphilias. They conceptualized paraphilic interests as a form of defence, one of which is a defence against adapting to the demands of life.

Furthermore, as discussed in the introductory chapter, anxiety appears to be a stable trait over time (Copeland et al., 2009; Orvaschel et al., 1995; Pine et al., 1998). Therefore an individual who is diagnosed with an anxiety disorder in adulthood was probably experiencing mild symptoms in childhood and at the time of puberty, when paraphilias would develop. Once again, determining the timeline of appearance of these disorders could test this hypothesis. If the symptoms of psychological disorders preceded the paraphilic interests, it could be argued that the psychological disorders can be a factor in the development of paraphilias.

4) *A third factor may explain the relationship between paraphilias and mental health.* As many theories suggest, the factors associated with the development of mental health might also

be related to the development of paraphilias. For example, Kafka's monoamine hypothesis links both anxiety and sex-drive to levels of monoamines (Kafka, 2003); Balyk (1997) links the vulnerability to content specific rituals and well defined mental or behavioural sequences to the development of both OCD and atypical Sexual-Erotic Arousal Pattern (SEAP). Likewise, social factors could be involved in a link between mental health and paraphilias. For example, childhood abuse can lead to psychological disorders, as theorised by Freud (1905/1975) as well as Money and Lamacz (1989), and early childhood sexual experiences could also lead to the development of paraphilias (Jespersen et al., 2009). In the second study, and consistent with published meta-analyses on sexual offender status (Jespersen, Lalumière, & Seto, 2009; Seto & Lalumière, 2010), individuals with paraphilias (39%) were more likely than individuals without a paraphilia (21%) to report childhood sexual abuse. Additionally, personality traits (e.g., neuroticism, introversion, openness, impulsivity) might be a third factor linking the development of psychological disorders and paraphilias. Some personality traits (e.g., neuroticism) have been linked to higher rates of psychological symptoms (Goodwin & Friedman, 2006), and individuals with paraphilic behaviours have also been shown to have higher scores on certain personality traits (Chan & Beauregard, 2016; Fagan et al., 1991). The results from the presented studies does not account for what this third factor might be. Additional studies utilising the hypothesized third factor (e.g., levels of monoamines, social factors) could provide additional information leading us closer to answering some of these questions.

5) *The relationship between paraphilias and mental health may be a product of the p factor.* A recent study involving a factor analysis of psychological disorders traditionally dichotomized as either internalizing or externalizing disorders found that mental health may be better conceptualized as a one-factor model (Caspi et al., 2014). This factor, named the p factor,

could explain the high comorbidity between both internalizing and externalizing psychological disorders found in previous research (e.g., Newman, Moffitt, Caspi, & Silva, 1998). High comorbidities found in this study may be explained by this factor as well. Although the authors have offered suggestions as to what the p factor may represent (e.g., impaired development, personality traits; Caspi et al., 2014), more research needs to be conducted to elucidate its nature. In line with this model, high rates of comorbidity was found within the paraphilia diagnosis with 32% of paraphilic individuals having more than one diagnosis of a paraphilia. The p factor theory would also suggest that a general vulnerability to psychological disorders could explain the relationship that was found between paraphilic disorders and mental health.

There might be more than one avenue from which paraphilias could develop, similarly to the multiple factors at play in the development of psychological disorders (e.g., biological, social, and environmental). Despite a general tendency for paraphilias to be related to psychological disorders, there was some slight variation between subtypes of paraphilias and the psychological disorders that were related. For example, in the meta-analysis, individuals with sadism had higher odds of having psychopathy than the non-paraphilic comparison group, and the reverse relationship was observed for pedophilia. It could be argued that the lack of empathy present in psychopathy would facilitate sadistic tendencies, a personality characteristic that is not as crucial for pedophilia. There has been evidence of prenatal origins for pedophilia (Dyshniku et al., 2015), but not, for example, in sadism or masochism. This suggests that the relationship between paraphilias and specific psychological disorders could also depend on the type of paraphilia. Perhaps the perfect combination of multiple factors needs to be in place in order for a specific paraphilic interest to develop, and this combination might be different for each

paraphilia. What these results suggest is that some psychological disorders could be one of those factors.

Directions for Future Research

Paraphilias have mostly been studied independently from other psychological disorders, but these studies suggest that the two areas might be closely related; the factors explaining the emergence of psychological disorders could also explain the etiology of paraphilias, or vice versa. There are high rates of co-morbidity between psychological disorders (American Psychiatric Association, 2013; Andrews, Henderson, & Hall, 2001), so perhaps it is no surprise that paraphilic disorders tend to co-occur with other psychological disorders. Taking the current results together with the presented theories, future research can take different directions.

The next step in understanding the relationship between paraphilias and mental health is to look at the timeline of the emergence of symptoms and diagnoses. As discussed previously, if the psychological symptoms precede the paraphilic interests, the implications on its etiology is different than if they develop following the paraphilic interests. The latter case would indicate a reverse relationship, where paraphilias are an etiological factor to mental health. A study of this nature could take different forms, one being a longitudinal examination of mental health and sexual interests. Following a group of individuals pre and post puberty would provide data regarding the timeline for the appearance of symptoms of psychological disorders as well as paraphilic interests. This would provide a more accurate identification of symptoms than a retrospective study asking individuals to report on their past—memories of past events may not be as accurate, or of a study looking at the time at which diagnoses were given. The issue with the later method is that symptoms could have been present for an extended period of time prior to the diagnosing of the disorder.

Also, as seen in the meta-analysis, pedophilia is the predominant paraphilia studied, and was the most common diagnosis in the file review study. It would be important to look more specifically at other paraphilias in order to confirm that most paraphilias are co-morbid with psychological disorders. As suggested in the introductory chapter, paraphilias may not all have the same developmental pathway. Although no major differences between the sub-categories of paraphilias was found in the file review, the number of men with other paraphilias was low compared to men with pedophilia. Furthermore, as mentioned earlier, the stigma associated with paraphilias can potentially lead to psychological disorders. Comparing paraphilias that are stigmatized (e.g., pedophilia) to those that are less (e.g., BDSM) would be a way to test the hypothesis that paraphilias can lead to mental health problems because of stigma. This line of research would provide a better understanding of the differences between paraphilias.

Similarly, exploring the differences between ego-syntonic and ego-dystonic paraphilias could provide interesting information in regards to the relationship with mental health. It could be hypothesised that ego-dystonic paraphilias would cause more distress compared to paraphilias that are ego-syntonic.

More broadly, further examining the role of other factors, such as the environment; will help provide a deeper understanding of paraphilic interests. Some of the theories presented in the introduction (e.g. Freud, 1905/1975; Money, 1986; Money & Lamacz, 1989) suggested that environmental factors such as parental relationship and social environment, can lead to the development of paraphilias as well as psychological disorders. These theories suggest that negative experiences with sexuality during the stages of sexual development (e.g., condemnation of sexuoerotic rehearsal play in childhood) may lead to the development of paraphilias. Therefore, looking at parental attitudes on sexuality and individual's experiences with sexuality

throughout their development could provide insight into the type of environment that might foster the development of paraphilic interests.

Considering the cultural variations regarding the perception of paraphilias, it would also be interesting to study the relationship between paraphilias and mental health in different cultures. Most of the current research has been conducted in western countries, where as seen earlier, paraphilias are often stigmatised. It could be hypothesised that the relationship with psychological disorders might not be as high in a culture that is more accepting of paraphilic interests. For example, in Columbia it is generally accepted for pubescent boy to engage in sexual behaviour with donkeys (Bhugra, Popelyuk, & McMullen, 2010). The non-stigmatization would allow them to engage in their behaviours related to their sexual interests without concerns of external disapproval.

Furthermore, studying community samples will be an important step in furthering our understanding of the relationship between the paraphilias and mental health. Most of the studies to date have utilized psychiatric or incarcerated samples. As discussed previously, both these populations are known to have high rates of mental health disorders. Looking at paraphilic interests within the community would imply studying paraphilias as opposed to paraphilic disorders; the latter being more common in the psychiatric and incarcerated population. It could be argued that, since the second criterion (Criterion B) for the diagnosis of a paraphilic disorder is the presence of distress, comorbidities would be higher within this population than in a population of individuals who simply have a paraphilia, without the distress. A community sample will be more likely to consist of individuals who have not had any psychiatric contact, and in turn be less likely to meet criterion B, potentially lowering the odds of other mental health comorbidities as well. When looking at paraphilias in the general population, it will be

important to clearly define what constitutes a paraphilia in order to differentiate between the behaviour and the sexual attraction. Additionally, if an individual reports feeling sexually aroused during one occasion of engaging in the paraphilic behaviour, it might not constitute a paraphilia, which implies a consistent pattern of arousal towards the atypical behaviour or target.

Lastly, the anxiety-sexual arousal hypothesis is the first to incorporate gender as a possible factor in the etiology of paraphilias. As mentioned earlier, paraphilias are more prevalent in men than women (Seto, 2008, 2013; Dawson et al., 2016). The hypothesis could not be confirmed with the current study due to the relationship between paraphilias and mental health being generalized across disorders and not specific to anxiety in men. Furthermore, this relationship was not tested with a female population. This being said, other factors might be at play that would explain the gender difference within the prevalence of paraphilias (e.g., differences in sexual attitudes or sex drive). Therefore, future research looking at paraphilias in women and how they compare to men could also provide insight into their development.

Limitations

It is important to note that the high rates of criminal history within both samples (meta-analysis and file review) could have inflated the rates of psychological disorders, but would probably not affect the paraphilia vs. no paraphilia differences because similar number in each group had a criminal history. Additionally, the majority of both samples consisted of men with pedophilia specifically, and not all subtypes of paraphilias were equally represented. Therefore the results may not be generalizable to all subtypes of paraphilias, nor to the general population.

During the time period utilized in both studies, the definition of paraphilia has evolved. The addition of paraphilic disorder in the DSM-5 is an example of that. Therefore, how paraphilias were diagnosed or assessed varied. As indicated previously, in order to mitigate this

limitation, the definition of paraphilia utilised by the authors had to include the component of sexual attraction. Although in the meta-analysis some studies looked at paraphilias (not paraphilic disorders), the majority of the studies and the diagnoses provided in the file review were consistent with the definition of paraphilic disorders. A less distressing version of an atypical sexual interest (paraphilia) might relate differently to psychological disorders than a more distressing version (paraphilic disorders). One could argue that a paraphilic disorder could fall within the general understanding of psychological comorbidities with the p factor. The relationship with other mental health disorders would then be different than with a paraphilia, a lesser form that might not be conceptualized within the p factor. It is therefore cautioned to generalise to paraphilias in general.

Furthermore, despite evidence of the stability of anxiety over an individual's lifespan, it is not guaranteed that a diagnosis of anxiety in adulthood indicates symptoms of anxiety in childhood. This study looked at psychological disorders diagnosed in adulthood in an attempt to further understand atypical sexual interests which would probably have developed at the time of puberty. This assumes that symptoms of the psychological disorders were present at that time even if not diagnosed, which might not have been the case.

Conclusion

This dissertation has provided important information regarding the etiology of paraphilias. Paraphilias were found to have a general relationship to psychological disorders in an adult male population. Confirming the relationship between paraphilias and mental health through different methods opens up a new avenue of research for this field of study. From here, looking more directly at the timeline of appearance would provide additional key information in the understanding of the etiology of paraphilias. Continued research is important as it will lead

to a better understanding of the phenomenon and, in turn, the development of better treatments/interventions for individuals who suffer from a paraphilic disorder. A better understanding and more awareness of paraphilias will also help in reducing the stigma associated with these atypical sexual interests, and ultimately, a reduction in victimization. Not only a reduction in the number of the victims of paraphilic acts, but also a reduction in the alienation of the individuals living with paraphilias.

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Appendix A
Database Search Strategy
Paraphilia related terms

Synonyms of paraphilia	Paraphili*	Sex* devia*	Diversion of sex* interests	Atypical sex* interests	Perversion
Synonyms of sex offender	Sex* offend*	P?edophil*	Sex* assault	Child molest*	rapist
Paraphilias	Exhibitionis* Froteur* Bestiality	Voyeuris* Fetish* Zoophili*	Indecent exposure Tansves*	Sadis* BDSM	Masochis* Biastophilia

Psychological disorder related terms

Synonyms of psychiatric disorders	Psych* disorder*	Mental disorder*	Psychopathology	Psychiatric comorbidity	Mental health disorder*
Common disorders	Personality Disorder*	Anxiety	Social phobia	Depression	Mood disorder*
Diagnostic manuals	DSM	ICD	Diagnostic and statistical manual of mental disorders	International Classification of Diseases	

paraphili* OR "sex* devia*" OR "diversion of sex* interests" OR "atypical sex* interests" OR perversion OR "sex* offend*" OR P?edophil* OR "sex* assault" OR "child molest*" OR rapist OR exhibitionis* OR voyeuris* OR "indecent exposure" OR sadis* OR masochis* OR froteur* OR fetish* OR transves* OR bdsm OR biastophilia OR bestiality OR zoophili*

AND

"psych* disorder*" OR psychopathology OR "mental disorder*" OR "mental health disorder*" OR "psychiatric comorbidity" OR "personality disorder*" OR anxiety OR "social phobia" OR "mood disorder*" OR depression OR dsm OR icd OR "diagnostic and statistical manual of mental disorders" OR "International Classification of Diseases"

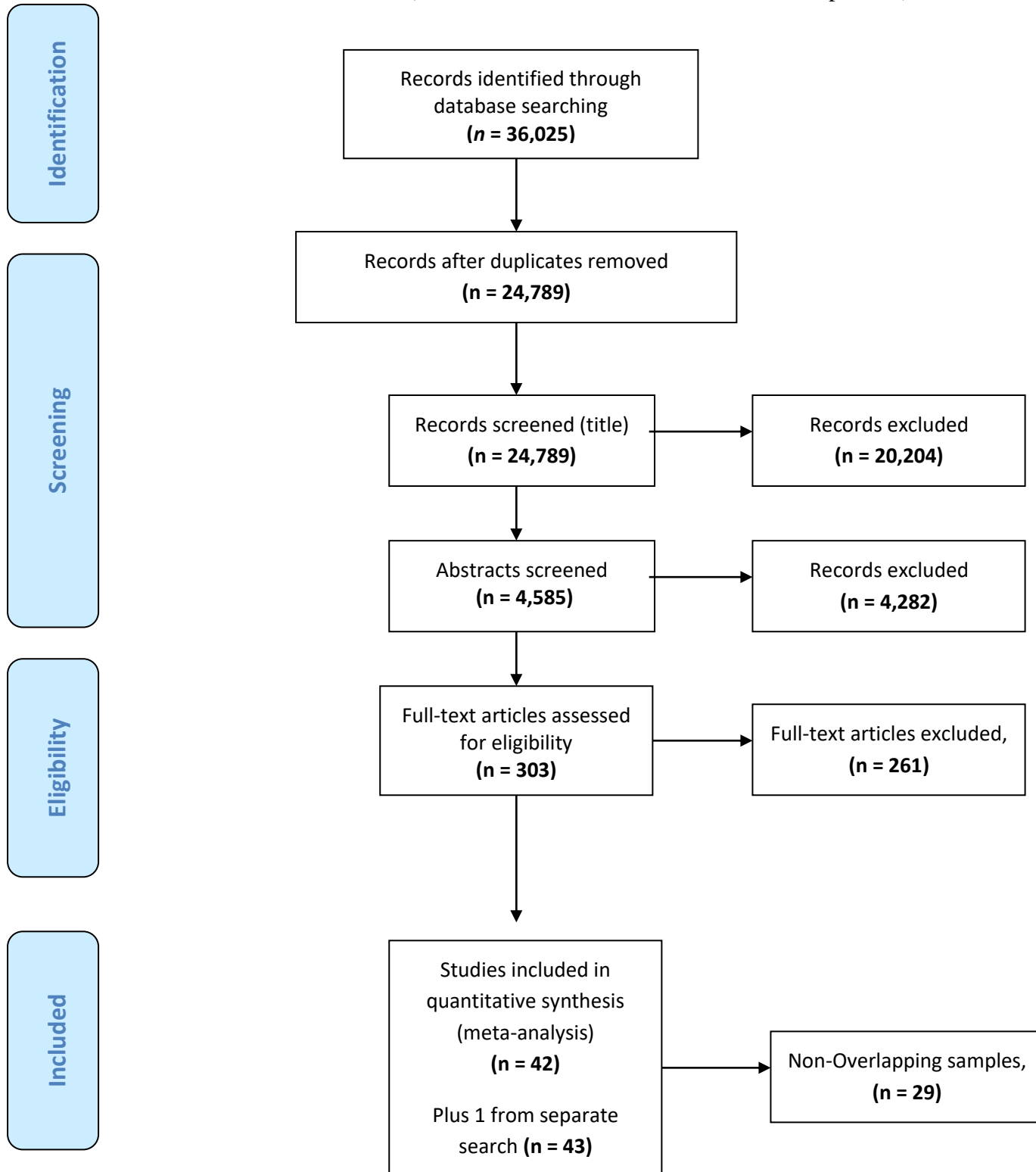
French key words

paraphilie OU "déviation sex*" OU "intérêt sex*" OU "intérêt sex* atypique" OU "crime sexuel*" OU pedophil* OU viol* OU exhibitionis* OU voyeuris* OU sadis* OU masochis* OU froteuris* OU fetichis* OU transvesti* OU bestiali* OU zoophili* OU biastophili*

ET

"trouble de santé mentale" OU "psychopatho*" OU "désordre menta*" OU comorbidité OU DSM OU ICD OU "Manuel diagnostique et statistique des troubles mentaux" OR "International classification of diseases"

Appendix B
PRISMA Flow Chart (Moher, Liberati, Tetzlaff, Altman, & Group, 2009)



Appendix C
GENERAL STATISTICS FORM

Coder Pair Initials: _____

Study Authors: _____

* STUDY - Identification # (e.g., 3. No decimal point) _____

* PUBLISHED - material is published

0 = No

1 = Yes

* PEERREVIEW - material is peer reviewed

0 = No

1 = Yes

* YEAR - date which study was published/released/completed _____

* RECRUIT – What was the recruitment method?

1 = Online

2 = In-person (asking participant face-to-face to participate)

3 = Print advertisements (e.g., posters/newspapers, sign up sheet, etc.)

4 = No contact with participant (e.g. file review, court reports)

5 = Other (Specify): _____

6 = Unknown

* RECRUITDETAILS – Provide extra details about the recruitment method, if applicable (e.g., special recruitment methods, year when data collection took place).

* SETTING – The type of setting the sample comes from.

1 = General population

2 = Incarcerated population

3 = Forensic hospital

4 = Other hospital unit

5 = University sample

6 = Online sample

7 = Other (Please specify): _____

* SETTDETAILS - Provide details on the sample (e.g. city where they live, what year the data collection took place, which university, etc.).

* PREPOST – Was this pre- or post- data from a group of healthy, non-clinical participants (e.g., prior to the disability would be pre-data or after treatment for disability would be post-data).

0 = No

1 = Yes, pre-data (Specify the pre-disability): _____

2 = Yes, post-data (Specify the pre-disability and treatment used): _____

3 = Unknown

* EXCLUSION – Was there any exclusion or inclusion criteria relevant to sexual attraction or mental health (e.g., severe mental health)? Provide as many details as possible.

* COUNTRY - country where study originated

0 = Canada

1 = U.S.

2 = England

3 = Scotland

4 = Wales

5 = Ireland

6 = France

7 = Netherlands (Holland)

8 = Germany

9 = Denmark

10 = Norway

11 = Australia

12 = New Zealand

13 = Switzerland

14 = Belgium

15 = Austria

16 = Spain

17 = Italy

18 = India

19 = India

20 = China

21 = Worldwide (e.g., multi-country study)

Please Specify: _____

22 = Israel

23 = Japan

24 = Other (Please Specify):

* SEX – Sex of the participants. Percentage of each group

	Paraphilic	Non-paraphilic	Combined
0 = Male	_____	_____	_____
1 = Female	_____	_____	_____
2 = Unknown	_____	_____	_____

* RACE - Circle all that apply. If multiple ethnicities within sample, note % of sample in each ethnicity category if possible.

	Paraphilic	Non-paraphilic	Combined
1 = Black (e.g., black Canadian/American)	_____	_____	_____
2 = Caucasian	_____	_____	_____
3 = West Asian (i.e., India/middle eastern)	_____	_____	_____
4 = East Asian	_____	_____	_____
5 = Hispanic/Latino	_____	_____	_____
6 = First Nation/Aboriginal	_____	_____	_____
7 = Other (please specify): _____	_____	_____	_____
8 = Unknown	_____	_____	_____

* EDUCATION – What was the education level of the sample? Add % if known

	Paraphilic	Non-paraphilic	Combined
0 = Less than high school	_____	_____	_____
1 = Completed high school	_____	_____	_____
2 = Some undergraduate/college training	_____	_____	_____
3 = Completed undergrad degree/college diploma	_____	_____	_____
4 = Unknown	_____	_____	_____

* EDUCATIONDETAILS - Provide details about the education of participant in the sample, if necessary.

*OFFENDERS – Have the participants been charged with any criminal offence? Add % if known

	Paraphilic	Non-paraphilic	Combined
0 = No	_____	_____	_____
1 = Yes, sexual offence	_____	_____	_____
2 = Yes, non sexual offence	_____	_____	_____
3 = Yes, both	_____	_____	_____
4 = Unknown	_____	_____	_____

* RELATIONSHIP STATUS - circle all that apply. If multiple categories present in sample, add % in each category if known.

	Paraphilic	Non-paraphilic	Combined
1 = Single/not committed	_____	_____	_____
2 = Committed relationship (but not married)	_____	_____	_____
3 = Married (common-law; living together 1+ year)	_____	_____	_____
4 = Divorced/separated	_____	_____	_____
5 = Unknown	_____	_____	_____

* AGE of sample (Mean/ SD and range): Paraphilic group - _____
 Non-paraphilic group - _____
 Combined - _____

* SAMPLESIZE – size of final sample _____
 Paraphilic group size _____
 Non-paraphilic group size _____

* MENTALDISORDER – Mental health disorders that are studied (check all that applies) and specify if: 1 = self-report, 2 = professional diagnosis

- Anxiety disorders _____
- Mood disorders _____
- Childhood disorders _____
- Substance disorders _____
- Psychotic disorders _____
- Personality disorders _____
- Psychopathy _____
- Other (please specify): _____

* MENTALDISORDERDETAILS – provide details about the method that was utilized for the evaluation of mental health disorders and specific disorders that were studied.

* PARAPHILIA – Which paraphilias are reported (check all that applies) and specify if: 1 = self-report, 2 = professional diagnosis

- Exhibitionism _____
- Voyeurism _____
- Frotteurism _____
- Sexual sadism _____
- Sexual masochism _____
- Fetishism _____
- Transvestic fetishism _____
- Pedophilia _____
- Hebephilia _____
- Other (please specify): _____

*PARAPHILIADETAILS - provide details about the method that was utilized for the evaluation of paraphilias.

Appendix D

VARIABLE CODING FORM

Variable name (MH dx): _____

Study No. _____

Measure/Description: _____

Page # _____

Table _____

If collecting data from a interval/ordinal measure:

	Sample size	Mean	Standard deviation
Paraphilia: _____			
Paraphilia: _____			
Paraphilia: _____			
Paraphilia: _____			
Paraphilia: _____			
Any Paraphilia:			

Non-paraphilic group			
Non-paraphilic - group 2			
Other group			

Page # _____ Table _____ Study #: _____

If collecting data from a dichotomous measure:

	No MH (frequency)	Yes MH (frequency)	Total
Paraphilia: _____	a	b	
Non-paraphilic group	c	d	
Total			

	No (frequency)	Yes (frequency)	Total
Paraphilia: _____	a	b	
Non-paraphilic group	c	d	
Total			

	No (frequency)	Yes (frequency)	Total
Paraphilia: _____	a	b	
Non-paraphilic group	c	d	
Total			

COMBINING MEANS AND STANDARD DEVIATION FROM MULTIPLE GROUPS

These equations are helpful when you want to aggregate several groups into one (e.g., the study provides a mean for different paraphilias separately and you would like to combine them in a “any paraphilia” category). You would need to aggregate the mean first (formula provided below) and then aggregate the standard deviation. This is preferable to taking a pooled standard deviation because that will artificially reduce your effect size variance (you need to add in between-group variance). An excel file will be used to conduct these calculations, but the formula is below. THIS FORMULA IS NOT FOR COMPUTING EFFECT SIZES

Combining multiple means (M) into one

$$W_M = (M_1 * N_1) + (M_2 * N_2) / N_1 + N_2$$

Combining multiple SDs into one

$$W_{SD} = \sqrt{\frac{sstdf}{df}}$$

$$SS_{\text{within}} = (n_1 - 1)(sd_1)^2 + (n_2 - 1)(sd_2)^2$$

$$SS_{\text{btw}} = n_1(\bar{m}_1 - w_m)^2 + n_2(\bar{m}_2 - w_m)^2$$

$$SS_{\text{total}} = SS_b + SS_w$$

$$df = N - 1$$

Appendix E

The Revised Screening Scale for Pedophilic Interests – 2 (SSPI-2)
(July 2015)

Green File Number: _____

The following are the specific instructions for coding for each of the individual items. The items are coded 1 if present and 0 if absent. Weighting in the SSPI-2 is different from the SSPI as each item is scored a unitary weight if present (i.e., there is no longer a score of 2 assigned for boy child victims).

Item 1: Any boy victim under the age of 15: This item assesses whether there is the presence of a boy child victim who is under the age of 15 in the offender's sexual offence history. If there is a boy child victim under the age of 15 a score of 1 is assigned for this item.

Item 2: Multiple child victims under the age of 15: This item assesses whether there is more than one child victim under the age of 15 in an offender's sexual offence series.

Item 3: Any child victim under the age of 12: This item assesses whether there are any child victims under the age of 12. Thus victims between the ages of 12 and 15 are not included in this item. This rationale behind this item is that child victims under the age of 12 would likely be prepubescent in nature and this victim age category would provide a more direct proxy of pedophilic sexual interest.

Item 4: Any extrafamilial child victims under the age of 15: This item assesses whether there are one or more extrafamilial victims under the age of 15. Extrafamilial victims include victims where there is no familial relationship between the perpetrator and child and would include acquaintances and/or strangers.

Item 5: Child pornography: This item is based on the definition of child pornography used in Canada. The *Canadian Criminal Code* defines child pornography as a visual or text depiction of a person who appears to be under the age of 18 in a sexually suggestive pose or in sexual conduct with another minor or adult. This definition is broader than the definition used in federal American law because it includes non-visual depictions (e.g., stories) and fictional children. Depictions simply of children in the nude would not usually qualify. The item does not include distribution or production of child pornography, only possession of child pornography.

Appendix F

The Psychological Symptom Subscale of the DSFI

SECTION V

Below is a list of problems and complaints that people sometimes have. Please read each one carefully. After you have done so, please fill in one of the numbered spaces to the right that best describes HOW MUCH THAT PROBLEM HAS BOTHERED OR DISTRESSED YOU IN THE PAST TWO WEEKS INCLUDING TODAY. Mark only one numbered space for each problem and do not skip any items.

HOW MUCH WERE YOU BOTHERED BY :	not at all	slightly	moderately	quite a bit	extremely	HOW MUCH WERE YOU BOTHERED BY :	not at all	slightly	moderately	quite a bit	extremely
1. NERVOUSNESS OR SHAKINESS INSIDE	=0=	=1=	=2=	=3=	=4=	27. DIFFICULTY MAKING DECISIONS	=0=	=1=	=2=	=3=	=4=
2. FAINTNESS OR DIZZINESS	=0=	=1=	=2=	=3=	=4=	28. FEELING AFRAID TO TRAVEL ON BUSES, SUBWAYS OR TRAINS	=0=	=1=	=2=	=3=	=4=
3. THE IDEA THAT SOMEONE ELSE CAN CONTROL YOUR MIND	=0=	=1=	=2=	=3=	=4=	29. TROUBLE GETTING YOUR BREATH	=0=	=1=	=2=	=3=	=4=
4. FEELING OTHERS ARE TO BLAME FOR MOST OF YOUR TROUBLES	=0=	=1=	=2=	=3=	=4=	30. HOT OR COLD SPELLS	=0=	=1=	=2=	=3=	=4=
5. TROUBLE REMEMBERING THINGS	=0=	=1=	=2=	=3=	=4=	31. HAVING TO AVOID CERTAIN THINGS PLACES OR ACTIVITIES BECAUSE THEY FRIGHTEN YOU	=0=	=1=	=2=	=3=	=4=
5. FEELING EASILY ANNOYED OR IRRITATED	=0=	=1=	=2=	=3=	=4=	32. YOUR MIND GOING BLANK	=0=	=1=	=2=	=3=	=4=
7. PAINS IN HEART OR CHEST	=0=	=1=	=2=	=3=	=4=	33. NUMBNESS OR TINGLING IN PARTS OF YOUR BODY	=0=	=1=	=2=	=3=	=4=
3. FEELING AFRAID IN OPEN SPACES	=0=	=1=	=2=	=3=	=4=	34. THE IDEA THAT YOU SHOULD BE PUNISHED FOR YOUR SINS	=0=	=1=	=2=	=3=	=4=
3. THOUGHTS OF ENDING YOUR LIFE	=0=	=1=	=2=	=3=	=4=	35. FEELING HOPELESS ABOUT THE FUTURE	=0=	=1=	=2=	=3=	=4=
3. FEELING THAT MOST PEOPLE CANNOT BE TRUSTED	=0=	=1=	=2=	=3=	=4=	36. TROUBLE CONCENTRATING	=0=	=1=	=2=	=3=	=4=
1. POOR APPETITE	=0=	=1=	=2=	=3=	=4=	37. FEELING WEAK IN PARTS OF YOUR BODY	=0=	=1=	=2=	=3=	=4=
2. SUDDENLY SCARED FOR NO REASON	=0=	=1=	=2=	=3=	=4=	38. FEELING TENSE OR KEYED UP	=0=	=1=	=2=	=3=	=4=
3. TEMPER OUTBURSTS THAT YOU COULD NOT CONTROL	=0=	=1=	=2=	=3=	=4=	39. THOUGHTS OF DEATH OR DYING	=0=	=1=	=2=	=3=	=4=
4. FEELING LONELY EVEN WHEN YOU ARE WITH PEOPLE	=0=	=1=	=2=	=3=	=4=	40. HAVING URGES TO BEAT, INJURE OR HARM SOMEONE	=0=	=1=	=2=	=3=	=4=
5. FEELING BLOCKED IN GETTING THINGS DONE	=0=	=1=	=2=	=3=	=4=	41. HAVING URGES TO BREAK OR SMASH THINGS	=0=	=1=	=2=	=3=	=4=
6. FEELING LONELY	=0=	=1=	=2=	=3=	=4=	42. FEELING VERY SELF CONSCIOUS WITH OTHERS	=0=	=1=	=2=	=3=	=4=
7. FEELING BLUE	=0=	=1=	=2=	=3=	=4=	43. FEELING UNEASY IN CROWDS	=0=	=1=	=2=	=3=	=4=
3. FEELING NO INTEREST IN THINGS	=0=	=1=	=2=	=3=	=4=	44. NEVER FEELING CLOSE TO ANOTHER PERSON	=0=	=1=	=2=	=3=	=4=
9. FEELING FEARFUL	=0=	=1=	=2=	=3=	=4=	45. SPELLS OF TERROR OR PANIC	=0=	=1=	=2=	=3=	=4=
3. YOUR FEELINGS BEING EASILY HURT	=0=	=1=	=2=	=3=	=4=	46. GETTING INTO FREQUENT ARGUMENTS	=0=	=1=	=2=	=3=	=4=
1. FEELING THAT PEOPLE ARE UNFRIENDLY OR DISLIKE YOU	=0=	=1=	=2=	=3=	=4=	47. FEELING NERVOUS WHEN YOU ARE LEFT ALONE	=0=	=1=	=2=	=3=	=4=
2. FEELING INFERIOR TO OTHERS	=0=	=1=	=2=	=3=	=4=	48. OTHERS NOT GIVING YOU PROPER CREDIT FOR YOUR ACHIEVEMENTS	=0=	=1=	=2=	=3=	=4=
3. NAUSEA OR UPSET STOMACH	=0=	=1=	=2=	=3=	=4=	49. FEELING SO RESTLESS YOU COULDN'T SIT STILL	=0=	=1=	=2=	=3=	=4=
4. FEELING THAT YOU ARE WATCHED OR TALKED ABOUT BY OTHERS	=0=	=1=	=2=	=3=	=4=	50. FEELING OF WORTHLESSNESS	=0=	=1=	=2=	=3=	=4=
5. TROUBLE FALLING ASLEEP	=0=	=1=	=2=	=3=	=4=	51. FEELING PEOPLE WILL TAKE ADVANTAGE OF YOU IF YOU LET THEM	=0=	=1=	=2=	=3=	=4=
5. HAVING TO CHECK AND DOUBLE CHECK WHAT YOU DO	=0=	=1=	=2=	=3=	=4=	52. FEELINGS OF GUILT	=0=	=1=	=2=	=3=	=4=
						53. THE IDEA THAT SOMETHING IS WRONG WITH YOUR MIND	=0=	=1=	=2=	=3=	=4=

Appendix G

The Affect Subscale of the DSFI

SECTION VI

Below is a list of words that describe the way people sometimes feel. We would like you to tell us whether you have been having any of these feelings during the past TWO WEEKS. Please indicate the degree to which you have typically felt each emotion by filling in one of the numbered spaces that best describes your experience.

	never	rarely	sometimes	frequently	always		never	rarely	sometimes	frequently	always
1. NERVOUS	=0=	=1=	=2=	=3=	=4=	21. CHEERFUL	=0=	=1=	=2=	=3=	=4=
2. SAD	=0=	=1=	=2=	=3=	=4=	22. SATISFIED	=0=	=1=	=2=	=3=	=4=
3. REGRETFUL	=0=	=1=	=2=	=3=	=4=	23. ACTIVE	=0=	=1=	=2=	=3=	=4=
4. IRRITABLE	=0=	=1=	=2=	=3=	=4=	24. FRIENDLY	=0=	=1=	=2=	=3=	=4=
5. HAPPY	=0=	=1=	=2=	=3=	=4=	25. ANXIOUS	=0=	=1=	=2=	=3=	=4=
6. PLEASED	=0=	=1=	=2=	=3=	=4=	26. MISERABLE	=0=	=1=	=2=	=3=	=4=
7. EXCITED	=0=	=1=	=2=	=3=	=4=	27. GUILTY	=0=	=1=	=2=	=3=	=4=
8. PASSIONATE	=0=	=1=	=2=	=3=	=4=	28. ENRAGED	=0=	=1=	=2=	=3=	=4=
9. TIMID	=0=	=1=	=2=	=3=	=4=	29. DELIGHTED	=0=	=1=	=2=	=3=	=4=
10. HOPELESS	=0=	=1=	=2=	=3=	=4=	30. RELAXED	=0=	=1=	=2=	=3=	=4=
11. BLAMEWORTHY	=0=	=1=	=2=	=3=	=4=	31. VIGOROUS	=0=	=1=	=2=	=3=	=4=
12. RESENTFUL	=0=	=1=	=2=	=3=	=4=	32. AFFECTIONATE	=0=	=1=	=2=	=3=	=4=
13. GLAD	=0=	=1=	=2=	=3=	=4=	33. AFRAID	=0=	=1=	=2=	=3=	=4=
14. CALM	=0=	=1=	=2=	=3=	=4=	34. UNHAPPY	=0=	=1=	=2=	=3=	=4=
15. ENERGETIC	=0=	=1=	=2=	=3=	=4=	35. REMORSEFUL	=0=	=1=	=2=	=3=	=4=
16. LOVING	=0=	=1=	=2=	=3=	=4=	36. BITTER	=0=	=1=	=2=	=3=	=4=
17. TENSE	=0=	=1=	=2=	=3=	=4=	37. JOYOUS	=0=	=1=	=2=	=3=	=4=
18. WORTHLESS	=0=	=1=	=2=	=3=	=4=	38. CONTENTED	=0=	=1=	=2=	=3=	=4=
19. ASHAMED	=0=	=1=	=2=	=3=	=4=	39. LIVELY	=0=	=1=	=2=	=3=	=4=
20. ANGRY	=0=	=1=	=2=	=3=	=4=	40. WARM	=0=	=1=	=2=	=3=	=4=

Appendix H
Coding Form – File Review

M-R#: _____	RA Initials: _____
File #: _____	Date coded: <u>dd/mm/yy</u>

DEMOGRAPHIC VARIABLES (at the time of #6; except for #12 and #13)	
1. Gender: Male <input type="checkbox"/> (0) Female <input type="checkbox"/> (1) Other <input type="checkbox"/> (2)	
2. Date of Birth: <u>dd/mm/yy</u>	3. Age: _____
4. Place of birth	
○ Country: _____	○ City: _____
○ Province: _____	
5. Admission date (first contact with Royal): <u>dd/mm/yy</u>	
6. Date of SBC laboratory assessment between 99-09: <u>dd/mm/yy</u>	
7. Reason for referral (provide details) : _____	
8. Referral source:	
○ Doctor (0)	○ Self (3)
○ Court (1)	○ Family (4)
○ Lawyer (2)	○ Spouse (5)
○ Other: (6) _____	
○ Unknown (7)	
9. Relationship Status:	
○ Single (0)	○ Married (3)
○ Common-Law / living together (1)	○ Divorced / Separated (4)
○ Engaged (2)	○ Widowed (5)
○ Other, specify: (6) _____	
○ Unknown (7)	
10. Children	
○ # of biological children: _____	○ Unknown (77)
○ # of non-biological children: _____	
11. Biological Siblings	
○ # of older brothers: _____	○ # of older sisters: _____
○ # of younger brothers: _____	○ # of younger sisters: _____
○ Unknown (77)	
○ Twins: _____	
Notes (any step or foster siblings):	
If half-sibling do we know the bio parent?	
12. Highest level of education completed	
○ Less than grade 8 (0)	○ Vocational, trade, business school or community college program (5)
○ Grade 8 (1)	○ Bachelor's degree from a university (6)
○ Some high school grade (grades 9-12) (2)	○ Graduate or professional degree (M.A., Ph.D., M.B.A., M.D.) (7)
○ High school or equivalent (3)	○ Unknown (8)
○ Some post-secondary education (4)	
13. Occupation before index charge or event (e.g., construction worker):	

14. Employment Status (before index charge or event)	
○ Unemployed (0)	○ Student (3)
○ Full-time employed (1)	○ Retired (4)
○ Part-time employed (2)	○ Other: (5) _____
○ Unknown (6)	

15. Ethnic background		
<input type="radio"/> African American (0)	<input type="radio"/> East Indian (3)	<input type="radio"/> Other, please specify: (5)
<input type="radio"/> Asian (1)	<input type="radio"/> First Nation (4)	_____
<input type="radio"/> Caucasian (2)		<input type="radio"/> Unknown (6)
Notes on demographic variables:		

PROFESSIONAL DIAGNOSIS		yes (1)	<input type="checkbox"/> None (0)
Date	Diagnosis	Specifier	
DD / MM / YY			
DD / MM / YY			
DD / MM / YY			
DD / MM / YY			
DD / MM / YY			

Notes on professional diagnosis:

DECISIONBASE DIAGNOSIS (including "recovered" diagnosis)		<input type="checkbox"/> No Diagnosis (0)	<input type="checkbox"/> Did not complete (1) <input type="checkbox"/> Yes (2)
Date	DSM Codes	DSM Diagnosis	
DD / MM / YY			
DD / MM / YY			
DD / MM / YY			
Notes on Decisionbase diagnosis:			

INDEX ARREST
<p>1. Index arrest date: <u>dd/mm/yy</u></p> <p>2. Index charge date: <u>dd/mm/yy</u></p> <p>What:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Conviction date: <u>dd/mm/yy</u></p> <p>Convicted of:</p> <p>_____</p> <p>_____</p> <p>Victim-Age: _____</p> <p>Gender: _____</p> <p>Relationship: _____</p>

INDEX EVENT IF NO CHARGE
<p>1. Index event: <u>dd/mm/yy</u></p> <p>What:</p> <p>_____</p> <p>-</p> <p>_____</p> <p>_____</p> <p>Victim-Age: _____</p> <p>Gender: _____</p> <p>Relationship: _____</p>

CRIMINAL HISTORY (including Index event)	TOTAL CRIMINAL HISTORY (including index)
<p>1. Age at first arrest: _____</p> <p>2. Age at first criminal charge: _____</p> <p>3. Age at first criminal conviction: _____</p>	<p><input type="checkbox"/> None (0)</p> <p><input type="checkbox"/> Non sexual only (1)</p> <p><input type="checkbox"/> Sexual only (2)</p> <p><input type="checkbox"/> Both (3)</p>

HISTORY OF CRIMINAL CHARGES AND CONVICTIONS (PRIOR TO AND EXCLUDING INDEX EVENT)							
<input type="checkbox"/> No history of charges or convictions							
1. Offenses (non-sexual) check all that apply							
<u>Theft and property damage</u>							
Ch	Conv.	Ch	Conv.	Ch.	Conv.	Ch.	Conv.
<input type="checkbox"/>	<input type="checkbox"/> Theft	<input type="checkbox"/>	<input type="checkbox"/> Possession of property obtained by crime	<input type="checkbox"/>	<input type="checkbox"/> Auto theft	<input type="checkbox"/>	<input type="checkbox"/> Unlawfully in a dwelling house
<input type="checkbox"/>	<input type="checkbox"/> B&E	<input type="checkbox"/>	<input type="checkbox"/> Possession of stolen credit car	<input type="checkbox"/>	<input type="checkbox"/> Theft by wrongful possession	<input type="checkbox"/>	<input type="checkbox"/> Vandalism
<input type="checkbox"/>	<input type="checkbox"/> Possession of housebreaking tools	<input type="checkbox"/>	<input type="checkbox"/> Retaining stolen property	<input type="checkbox"/>	<input type="checkbox"/> Willful damage		
<input type="checkbox"/>	<input type="checkbox"/> Possession of burglar tools	<input type="checkbox"/>	<input type="checkbox"/> Shopbreaking/forcible entry				
<input type="checkbox"/>	<input type="checkbox"/> Possession of stolen property	<input type="checkbox"/>	<input type="checkbox"/> Shoplifting				
<u>Robbery</u>							
Ch	Conv.	Ch.	Conv.	Ch.	Conv.	Ch.	Conv.
<input type="checkbox"/>	<input type="checkbox"/> Robbery	<input type="checkbox"/>	<input type="checkbox"/> Armed robbery	<input type="checkbox"/>	<input type="checkbox"/> Robbery with violence	<input type="checkbox"/>	<input type="checkbox"/> Extortion
<u>Drug Offenses</u>							
Ch	Conv.	Ch	Conv.	Ch.	Conv.		
<input type="checkbox"/>	<input type="checkbox"/> Possession of narcotics	<input type="checkbox"/>	<input type="checkbox"/> Import narcotics	<input type="checkbox"/>	<input type="checkbox"/> Cultivation of a narcotic		
<input type="checkbox"/>	<input type="checkbox"/> Trafficking in narcotic	<input type="checkbox"/>	<input type="checkbox"/> Possession for purpose of trafficking	<input type="checkbox"/>	<input type="checkbox"/> Smuggling (probably cigs – alc-drugs)		

<u>Assault</u>					
Ch.	Conv.	Ch.	Conv.	Ch.	Conv.
<input type="checkbox"/>	<input type="checkbox"/> Assault causing bodily harm	<input type="checkbox"/>	<input type="checkbox"/> Grievous bodily harm	<input type="checkbox"/>	<input type="checkbox"/> Hijacking
<input type="checkbox"/>	<input type="checkbox"/> Assault police officer	<input type="checkbox"/>	<input type="checkbox"/> Wounding	<input type="checkbox"/>	<input type="checkbox"/> Abduction
<input type="checkbox"/>	<input type="checkbox"/> Threatening	<input type="checkbox"/>	<input type="checkbox"/> Resist arrest	<input type="checkbox"/>	<input type="checkbox"/> Administer stupefying substance
<input type="checkbox"/>	<input type="checkbox"/> Uttering threats	<input type="checkbox"/>	<input type="checkbox"/> Hit and run	<input type="checkbox"/>	<input type="checkbox"/> Overcoming resistance to commission of offence
<input type="checkbox"/>	<input type="checkbox"/> Common assault	<input type="checkbox"/>	<input type="checkbox"/> Kidnapping	<input type="checkbox"/>	<input type="checkbox"/> Intimidation
<input type="checkbox"/>	<input type="checkbox"/> Aggravated assault	<input type="checkbox"/>	<input type="checkbox"/> Unlawful confinement	<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/> Forcible seize	<input type="checkbox"/>	
<u>Murder</u>					
Ch.	Conv.	Ch.	Conv.	Ch.	Conv.
<input type="checkbox"/>	<input type="checkbox"/> First degree murder	<input type="checkbox"/>	<input type="checkbox"/> Manslaughter	<input type="checkbox"/>	<input type="checkbox"/> Discharging a firearm with intent to endanger life
<input type="checkbox"/>	<input type="checkbox"/> Second degree murder	<input type="checkbox"/>	<input type="checkbox"/> Cause bodily harm with intent to endanger life	<input type="checkbox"/>	<input type="checkbox"/> Wounding with intent
<u>Weapons</u>					
Ch.	Conv.	Ch.	Conv.	Ch.	Conv.
<input type="checkbox"/>	<input type="checkbox"/> Possession of a weapon	<input type="checkbox"/>	<input type="checkbox"/> Dangerous use of a firearm	<input type="checkbox"/>	<input type="checkbox"/> Use a firearm
<input type="checkbox"/>	<input type="checkbox"/> Possession of explosives	<input type="checkbox"/>	<input type="checkbox"/> Pointing a firearm	<input type="checkbox"/>	<input type="checkbox"/> Possession of Imitation firearm
<input type="checkbox"/>	<input type="checkbox"/> Carry concealed weapon				
<u>Driving Offense</u>					
Ch.	Conv.	Ch.	Conv.	Ch.	Conv.
<input type="checkbox"/>	<input type="checkbox"/> Criminal negligence	<input type="checkbox"/>	<input type="checkbox"/> Driving while ability impaired	<input type="checkbox"/>	<input type="checkbox"/> Failure to provide a breath sample
<input type="checkbox"/>	<input type="checkbox"/> Driving while intoxicated	<input type="checkbox"/>	<input type="checkbox"/> Driving with more than 80 mgs of alc in blood	<input type="checkbox"/>	<input type="checkbox"/> Fail to remain at scene of accident
<input type="checkbox"/>	<input type="checkbox"/> Dangerous driving			<input type="checkbox"/>	<input type="checkbox"/> Failure to stop (accident)
<input type="checkbox"/>	<input type="checkbox"/> Careless driving				
<u>Fraud</u>					
Ch.	Conv.	Ch.	Conv.	Ch.	Conv.
<input type="checkbox"/>	<input type="checkbox"/> Fraud	<input type="checkbox"/>	<input type="checkbox"/> Fail to give name and address (with intent)	<input type="checkbox"/>	<input type="checkbox"/> Evasion of income tax
<input type="checkbox"/>	<input type="checkbox"/> Forgery	<input type="checkbox"/>	<input type="checkbox"/> Fraudulently obtain food or lodging	<input type="checkbox"/>	<input type="checkbox"/> Extortion
<input type="checkbox"/>	<input type="checkbox"/> False pretences	<input type="checkbox"/>	<input type="checkbox"/> Make a false statement	<input type="checkbox"/>	<input type="checkbox"/> Disguised with intent
<input type="checkbox"/>	<input type="checkbox"/> Personation	<input type="checkbox"/>	<input type="checkbox"/> Using a stolen credit card	<input type="checkbox"/>	<input type="checkbox"/> Impersonate police officer
<input type="checkbox"/>	<input type="checkbox"/> Uttering a forged document	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/> Accessory after the fact to murder
<input type="checkbox"/>	<input type="checkbox"/> Deal with a forged document	<input type="checkbox"/>			

<u>Mischief</u>					
Ch.	Conv.	Ch.	Conv.	Ch.	Conv.
<input type="checkbox"/>	<input type="checkbox"/> Prostitution	<input type="checkbox"/>	<input type="checkbox"/> Driving while disqualified	<input type="checkbox"/>	<input type="checkbox"/> Counsel/aid suicide
<input type="checkbox"/>	<input type="checkbox"/> Loitering	<input type="checkbox"/>	<input type="checkbox"/> Driving while license is suspended	<input type="checkbox"/>	<input type="checkbox"/> Trespassing at night
<input type="checkbox"/>	<input type="checkbox"/> Causing a disturbance	<input type="checkbox"/>	<input type="checkbox"/> Driving while prohibited	<input type="checkbox"/>	<input type="checkbox"/> Prowl by night
<input type="checkbox"/>	<input type="checkbox"/> Mischief	<input type="checkbox"/>	<input type="checkbox"/> Driving while disqualified	<input type="checkbox"/>	<input type="checkbox"/> Transporting to a bawdy house
<input type="checkbox"/>	<input type="checkbox"/> Vagrancy	<input type="checkbox"/>	<input type="checkbox"/> Refusing to provide breath sample	<input type="checkbox"/>	<input type="checkbox"/> Causing unnecessary suffering to animals
<input type="checkbox"/>	<input type="checkbox"/> Living of the avails of prostitution	<input type="checkbox"/>	<input type="checkbox"/> Criminal harassment	<input type="checkbox"/>	<input type="checkbox"/> Harassing/indecent phone calls
<input type="checkbox"/>	<input type="checkbox"/> Violation of immigration laws	<input type="checkbox"/>	<input type="checkbox"/> Contributing to juvenile delinquency		
<input type="checkbox"/>	<input type="checkbox"/> Bookmaking				
<u>Escape and obscuring criminal process</u>					
Ch.	Conv.	Ch.	Conv.	Ch.	Conv.
<input type="checkbox"/>	<input type="checkbox"/> Escape (lawful custody)	<input type="checkbox"/>	<input type="checkbox"/> Breach of recognizance	<input type="checkbox"/>	<input type="checkbox"/> Perjury
<input type="checkbox"/>	<input type="checkbox"/> Unlawfully at large	<input type="checkbox"/>	<input type="checkbox"/> Breach of bail	<input type="checkbox"/>	<input type="checkbox"/> Contempt of court
<input type="checkbox"/>	<input type="checkbox"/> Break out of prison	<input type="checkbox"/>	<input type="checkbox"/> Fail to comply (with probation order)	<input type="checkbox"/>	<input type="checkbox"/> Obstruct a peace officer
<input type="checkbox"/>	<input type="checkbox"/> Failure to appear	<input type="checkbox"/>	<input type="checkbox"/> Breach of probation	<input type="checkbox"/>	<input type="checkbox"/> Flight while pursued by police
<input type="checkbox"/>	<input type="checkbox"/> Fail to attend court	<input type="checkbox"/>	<input type="checkbox"/> Assist escape		
<u>Arson</u>					
Ch.	Conv.				
<input type="checkbox"/>	<input type="checkbox"/> Place explosives with intent				
2. Sex offenses					
<u>Hands off (victim under 14 y.o.)</u>					
Ch.	Conv.	Ch.	Conv.		
<input type="checkbox"/>	<input type="checkbox"/> Exposure to person < 14	<input type="checkbox"/>	<input type="checkbox"/> Internet luring (luring a child)		
<input type="checkbox"/>	<input type="checkbox"/> Invitation to sexual touching	<input type="checkbox"/>	<input type="checkbox"/> Luring child under 18 (if other category 12 or 13)		
Date of offence: DD / MM / YY					
<u>Hands on (victim under 14 y.o.)</u>					
Ch.	Conv.	Ch.	Conv.		
<input type="checkbox"/>	<input type="checkbox"/> Sexual intercourse with female < 14	<input type="checkbox"/>	<input type="checkbox"/> Sexual interference		
<input type="checkbox"/>	<input type="checkbox"/> Parent/Guardian procuring sexual activity	<input type="checkbox"/>	<input type="checkbox"/> Sexual interference with person < 14		
<input type="checkbox"/>	<input type="checkbox"/> Sexual assault (if ch or cv category 12 or 13)	<input type="checkbox"/>	<input type="checkbox"/> Incest (if ch or cv for category 12 or 13)		
Date of offence: DD / MM / YY					

<u>Hands off (adult victim)</u>					
Ch.	Conv.	Ch.	Conv.	Ch.	Conv.
<input type="checkbox"/>	<input type="checkbox"/> Indecent Act	<input type="checkbox"/>	<input type="checkbox"/> Voyeurism	<input type="checkbox"/>	<input type="checkbox"/> Nudity
<input type="checkbox"/>	<input type="checkbox"/> Indecent Exposure (exhibition)	<input type="checkbox"/>	<input type="checkbox"/> Luring child under 18 (if no category 12 or 13)	<input type="checkbox"/>	<input type="checkbox"/> Communicate to engage prostitute < 18 yo
<input type="checkbox"/>	<input type="checkbox"/> Gross indecency				
<input type="checkbox"/>	<input type="checkbox"/> Corrupting morals				
<input type="checkbox"/>	<input type="checkbox"/> Sexual exploitation				
Date of offence: DD / MM / YY					
<u>Hands on (adult victim)</u>					
Ch.	Conv.	Ch.	Conv.	Ch.	Conv.
<input type="checkbox"/>	<input type="checkbox"/> Anal intercourse	<input type="checkbox"/>	<input type="checkbox"/> Indecent assault on a male	<input type="checkbox"/>	<input type="checkbox"/> Incest
<input type="checkbox"/>	<input type="checkbox"/> Buggery	<input type="checkbox"/>	<input type="checkbox"/> Sexual Assault	<input type="checkbox"/>	<input type="checkbox"/> Bestiality
<input type="checkbox"/>	<input type="checkbox"/> Indecent assault on a female				
Date of offence: DD / MM / YY					
<u>Violent sexual</u>					
Ch.	Conv.	Ch.	Conv.	Ch.	Conv.
<input type="checkbox"/>	<input type="checkbox"/> Aggravated sexual assault	<input type="checkbox"/>	<input type="checkbox"/> Sexual assault causing bodily harm	<input type="checkbox"/>	<input type="checkbox"/> Sexual assault with a weapon
Date of offence: DD / MM / YY					
<u>Child pornography</u>					
Ch.	Conv.	Ch.	Conv.	Ch.	Conv.
<input type="checkbox"/>	<input type="checkbox"/> Possession of child pornography	<input type="checkbox"/>	<input type="checkbox"/> Making child pornography	<input type="checkbox"/>	<input type="checkbox"/> Distributing pornography
<input type="checkbox"/>	<input type="checkbox"/> Accessing child pornography	<input type="checkbox"/>		<input type="checkbox"/>	
Date of offence: DD / MM / YY					
Notes on criminal convictions:					

VICTIM OF SEX ABUSE			<input type="checkbox"/> YES (1)	<input type="checkbox"/> NO (2)	<input type="checkbox"/> Unknown (7)
Age at first occurrence: _____			Offender relationship: _____		
Type of abuse: _____			Age: _____		
			Gender: <input type="checkbox"/> Male (1) <input type="checkbox"/> Female (2)		
Notes on sexual abuse:					

VICTIM OF PHYSICAL ABUSE		<input type="checkbox"/> YES (1)	<input type="checkbox"/> NO (2)	<input type="checkbox"/> Unknown (7)
Age at first physical abuse: _____ Type of abuse: _____	Offender relationship: _____ Age: _____ Gender: <input type="checkbox"/> Male (1) <input type="checkbox"/> Female (2)			
Notes on physical abuse:				

PSYCHOLOGICAL SYMPTOM SUBSCALE (DSFI) - Section 5: SYM Scale	
Date completed: DD / MM / YY	<input type="checkbox"/> Not completed

AFFECT SUBSCALE (DSFI) – Section 6: AFF Scale	
Date completed: DD / MM / YY	<input type="checkbox"/> Not completed

FANTASY CHECKLIST	
Date completed: DD / MM / YY	<input type="checkbox"/> Not completed

BRIEF PSYCHIATRIC RATING SCALE (BPRS)				<input type="checkbox"/> Not completed (0)
Date completed: DD / MM / YY				
1. Somatic Concern: (SC)				
<input type="checkbox"/> Not present (0)	<input type="checkbox"/> Mild (2)	<input type="checkbox"/> Moderately severe (4)	<input type="checkbox"/> Extremely Severe (6)	
<input type="checkbox"/> Very mild (1)	<input type="checkbox"/> Moderate (3)	<input type="checkbox"/> Severe (5)	<input type="checkbox"/> Missing (7)	
2. Anxiety: (ANX)				
<input type="checkbox"/> Not present (0)	<input type="checkbox"/> Mild (2)	<input type="checkbox"/> Moderately severe (4)	<input type="checkbox"/> Extremely Severe (6)	
<input type="checkbox"/> Very mild (1)	<input type="checkbox"/> Moderate (3)	<input type="checkbox"/> Severe (5)	<input type="checkbox"/> Missing (7)	
3. Emotional Withdrawal: (E-W)				
<input type="checkbox"/> Not present (0)	<input type="checkbox"/> Mild (2)	<input type="checkbox"/> Moderately severe (4)	<input type="checkbox"/> Extremely Severe (6)	
<input type="checkbox"/> Very mild (1)	<input type="checkbox"/> Moderate (3)	<input type="checkbox"/> Severe (5)	<input type="checkbox"/> Missing (7)	
4. Conceptual Disorganization: (C-D)				
<input type="checkbox"/> Not present (0)	<input type="checkbox"/> Mild (2)	<input type="checkbox"/> Moderately severe (4)	<input type="checkbox"/> Extremely Severe (6)	
<input type="checkbox"/> Very mild (1)	<input type="checkbox"/> Moderate (3)	<input type="checkbox"/> Severe (5)	<input type="checkbox"/> Missing (7)	
5. Guilt Feelings: (G-F)				
<input type="checkbox"/> Not present (0)	<input type="checkbox"/> Mild (2)	<input type="checkbox"/> Moderately severe (4)	<input type="checkbox"/> Extremely Severe (6)	
<input type="checkbox"/> Very mild (1)	<input type="checkbox"/> Moderate (3)	<input type="checkbox"/> Severe (5)	<input type="checkbox"/> Missing (7)	
6. Tension: (TEN)				
<input type="checkbox"/> Not present (0)	<input type="checkbox"/> Mild (2)	<input type="checkbox"/> Moderately severe (4)	<input type="checkbox"/> Extremely Severe (6)	
<input type="checkbox"/> Very mild (1)	<input type="checkbox"/> Moderate (3)	<input type="checkbox"/> Severe (5)	<input type="checkbox"/> Missing (7)	

7. Mannerisms and Posturing: (MP)			
<input type="checkbox"/> Not present (0)	<input type="checkbox"/> Mild (2)	<input type="checkbox"/> Moderately severe (4)	<input type="checkbox"/> Extremely Severe (6)
<input type="checkbox"/> Very mild (1)	<input type="checkbox"/> Moderate (3)	<input type="checkbox"/> Severe (5)	<input type="checkbox"/> Missing (7)
8. Grandiosity: (GRA)			
<input type="checkbox"/> Not present (0)	<input type="checkbox"/> Mild (2)	<input type="checkbox"/> Moderately severe (4)	<input type="checkbox"/> Extremely Severe (6)
<input type="checkbox"/> Very mild (1)	<input type="checkbox"/> Moderate (3)	<input type="checkbox"/> Severe (5)	<input type="checkbox"/> Missing (7)
9. Depressive Mood: (DM)			
<input type="checkbox"/> Not present (0)	<input type="checkbox"/> Mild (2)	<input type="checkbox"/> Moderately severe (4)	<input type="checkbox"/> Extremely Severe (6)
<input type="checkbox"/> Very mild (1)	<input type="checkbox"/> Moderate (3)	<input type="checkbox"/> Severe (5)	<input type="checkbox"/> Missing (7)
10. Hostility: (HOS)			
<input type="checkbox"/> Not present (0)	<input type="checkbox"/> Mild (2)	<input type="checkbox"/> Moderately severe (4)	<input type="checkbox"/> Extremely Severe (6)
<input type="checkbox"/> Very mild (1)	<input type="checkbox"/> Moderate (3)	<input type="checkbox"/> Severe (5)	<input type="checkbox"/> Missing (7)
11. Suspiciousness: (SUS)			
<input type="checkbox"/> Not present (0)	<input type="checkbox"/> Mild (2)	<input type="checkbox"/> Moderately severe (4)	<input type="checkbox"/> Extremely Severe (6)
<input type="checkbox"/> Very mild (1)	<input type="checkbox"/> Moderate (3)	<input type="checkbox"/> Severe (5)	<input type="checkbox"/> Missing (7)
12. Hallucinatory Behaviour: (HB)			
<input type="checkbox"/> Not present (0)	<input type="checkbox"/> Mild (2)	<input type="checkbox"/> Moderately severe (4)	<input type="checkbox"/> Extremely Severe (6)
<input type="checkbox"/> Very mild (1)	<input type="checkbox"/> Moderate (3)	<input type="checkbox"/> Severe (5)	<input type="checkbox"/> Missing (7)
13. Motor Retardation: (MR)			
<input type="checkbox"/> Not present (0)	<input type="checkbox"/> Mild (2)	<input type="checkbox"/> Moderately severe (4)	<input type="checkbox"/> Extremely Severe (6)
<input type="checkbox"/> Very mild (1)	<input type="checkbox"/> Moderate (3)	<input type="checkbox"/> Severe (5)	<input type="checkbox"/> Missing (7)
14. Uncooperativeness: (UNC)			
<input type="checkbox"/> Not present (0)	<input type="checkbox"/> Mild (2)	<input type="checkbox"/> Moderately severe (4)	<input type="checkbox"/> Extremely Severe (6)
<input type="checkbox"/> Very mild (1)	<input type="checkbox"/> Moderate (3)	<input type="checkbox"/> Severe (5)	<input type="checkbox"/> Missing (7)
15. Unusual Thought Concern: (UTC)			
<input type="checkbox"/> Not present (0)	<input type="checkbox"/> Mild (2)	<input type="checkbox"/> Moderately severe (4)	<input type="checkbox"/> Extremely Severe (6)
<input type="checkbox"/> Very mild (1)	<input type="checkbox"/> Moderate (3)	<input type="checkbox"/> Severe (5)	<input type="checkbox"/> Missing (7)
16. Blunted Affect: (BA)			
<input type="checkbox"/> Not present (0)	<input type="checkbox"/> Mild (2)	<input type="checkbox"/> Moderately severe (4)	<input type="checkbox"/> Extremely Severe (6)
<input type="checkbox"/> Very mild (1)	<input type="checkbox"/> Moderate (3)	<input type="checkbox"/> Severe (5)	<input type="checkbox"/> Missing (7)

MEDICATION AT SBC		<input type="checkbox"/> Nothing mentioned (0)
Medication 1: _____ Dose: _____	Medication 2: _____ Dose: _____	
Medication 3: _____ Dose: _____	Medication 4: _____ Dose: _____	

Medication 5: _____ Dose: _____	Medication 6: _____ Dose: _____
Medication 7: _____ Dose: _____	Medication 8: _____ Dose: _____
Medication 9: _____ Dose: _____	Medication 10: _____ Dose: _____
Notes on medication:	

Information Sources

- Medical Record
- Green file
- Forensic Assessment Form (FAF)

Anxiety and the paraphilias study (Royal Ottawa)

Latest version: April 5th 2016

Mélanie Renaud