Hypersexuality Disorders and Sexual Offending

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Hypersexual Disorder is a clinical syndrome characterized by diminished control over excessive sexual fantasies, urges, and/or behaviors, which are accompanied by adverse consequences and/or personal distress (Gold & Heffner, 1998; Kafka, 2001). Hypersexual Disorder was considered for inclusion in the Sexual Disorders section of DSM-5 (www.dsm5.org) and then in the Appendix for disorders requiring further research. Hypersexual Disorder was ultimately rejected for inclusion in the Appendix. It is generally accepted that the incidence of hypersexual disorder is likely to be low, representing approximately 3–6 % of the general population (Black, 2000; Carnes, 1989; Coleman, 1992; Goodman, 1993), although higher rates are evident in specific populations, such as sexual offenders (Marshall & Marshall, 2006; Marshall, O'Brien, & Kingston, 2009).

Hypersexuality is particularly relevant in forensic settings because of its association with sexual aggression demonstrated in noncriminal sexual aggressors (Malamuth, 2003) and sexual offenders (Hanson & Morton-Bourgon, 2005; Kingston & Bradford, 2013; Knight, 2010). Unfortunately, problems defining and conceptualizing hypersexual disorder, and the lack of clear nosological criteria, have precluded effective assessment and treatment of this syndrome, particularly as it presents among sexual offending populations.

In this chapter, the extant literature on sexual behaviors that are considered excessive and problematic in both forensic and non-forensic populations is reviewed. Current perspectives regarding conceptualization, diagnosis, assessment, and treatment are also critically reviewed. Although excessive sexual behavior has been variously defined (e.g., sexual addiction, compulsive sexual behavior, sexual impulsivity), the term "hypersexual disorder" will be used throughout this review. As indicated below, features of hypersexual disorder are evident among paraphilic and normophilic sexual behaviors (i.e., sexual behaviors that are culturally sanctioned). This chapter is focused predominantly on culturally normative and excessive sexual behavior.

Defining and Conceptualizing Hypersexual Disorder

Hypersexual disorder is a controversial and elusive concept to define and measure (Giles, 2006; Gold & Heffner, 1998; Levine & Troiden, 1998; Rinehart & McCabe, 1997), and there has been a lack of consensus regarding terminology, definitional properties, symptomatology, and appropriate classification of this syndrome (Kingston & Firestone, 2008; Walters, Knight, & Langstrom, 2011). Historical descriptors have included nymphomania, Don Juanism, and erotomania and have coincided with predominant sociocultural attitudes of the time (Rinehart & McCabe, 1997). More recent labels have included sexual compulsivity, sexual impulsivity, and sexual addiction, which were based on the perceived psychopathological mechanisms guiding behavior (Kafka, 2007).

Despite such descriptive diversity, there is some agreement regarding the essential features of hypersexual disorder, such as the presence of volitional impairment over sexual fantasies, urges, and behaviors, and that these features are repetitive and persistent (Kafka, 2007, 2010; Kingston & Firestone, 2008). In addition, an essential component of the disorder is that the sexual thoughts or behaviors result in some form of personal distress and/or adverse consequences. Several personal distress features associated with hypersexuality have been identified, including social (e.g., relationship instability), emotional (e.g., anxiety, depression), physical (e.g., HIV infection), and legal consequences (e.g., incarceration) (Kafka, 2007; Kalichman & Rompa, 2001; Långström & Hanson, 2006; Schneider, 2004).

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Hypersexual behaviors can manifest as impersonal and/or solo sexual activity (e.g., frequent masturbation, pornography use) or as relational sexual acts (e.g., sex with numerous partners over brief time periods) (Kingston & Firestone, 2008). A further distinction can be made between repetitive sexual fantasies, urges, and behaviors that are excessive but culturally sanctioned (e.g., masturbation, sex with several consenting adults over brief periods of time), referred to as normophilic, and fantasies or behaviors that are defined as paraphilic; that is, directed toward nonhuman objects, the suffering or humiliation of oneself or one's partner, or children/nonconsenting partners (Kingston, Firestone, Moulden, & Bradford, 2007; Kingston, Seto, Firestone, & Bradford, 2010; Kingston & Yates, 2008). As indicated earlier, this review focuses primarily on sexual behaviors that are culturally normative or normophilic (Kafka, 2007).

In terms of clinical presentation, normophilic hypersexual behaviors are more prevalent in males as compared to females (estimated at a 5:1 ratio) (Kafka, 2007), although this difference is less pronounced than the paraphilias (approximately 20:1). Moreover, the clinical phenomenology of hypersexual disorder is such that age of onset typically occurs in adolescence, the intensity of the behavior can increase during periods of intense, negative emotional states and can be either ego-dystonic or ego-syntonic. Such behaviors are often comorbid with other normophilic and/or paraphilic sexual behaviors (Cantor et al., 2013; Carnes, 1991; Kafka & Hennen, 2003).

Several manifestations of hypersexual disorder have been identified in the literature; however, there is a lack of a coherent or reliable classification system for these behaviors (Kafka, 2010; Kingston, 2009). Initial classification systems included several broadly defined categories of sexual behavior (including both paraphilic and non-paraphilic sexual behaviors) that were difficult to operationalize. Examples included fantasy sex, anonymous sex, exploitative sex, multiple sexual partners, voyeuristic sex, seductive role sex, and compulsive masturbation (Carnes, 1991; Wines, 1997).

Although many investigators have suggested different terminology for the many manifestations of hypersexual disorder, Kafka (2001, 2007) provided a relatively comprehensive list of normophilic and excessive sexual behavior, which he termed *paraphilia-related disorders* (PRDs). Kafka's typology included compulsive masturbation, protracted promiscuity, pornography dependence, telephone sex dependence, cybersex, and severe sexual desire incompatibility. Additional manifestations, such as *obsessional fixations* or *love addictions*, were encompassed in a not otherwise specified category.

Kafka and Hennen (2003) reported prevalence rates for the above-noted behaviors among 120 males presenting with a variety of diagnosed paraphilias. The three most common manifestations of hypersexual disorder evident within this sample were compulsive masturbation (72.5 %), pornography dependence (47.5 %), and protracted promiscuity (44.1 %). Other PRDs, such as telephone sex dependence and severe sexual desire incompatibility, were identified in a smaller subset of the population (25 % and 13.3 %, respectively). Reid, Carpenter, and Lloyd (2009) reported similar prevalence rates in a sample of 59 males seeking treatment for hypersexual disorder. Specifically, more than half of the sample reported compulsive masturbation and pornography dependence as the predominant sexual manifestation of concern.

Behavioral Indicators of Hypersexual Disorder

Hypersexual disorder is characterized by behaviors that are recurrent and persistent (Kingston & Firestone, 2008). It is generally acknowledged that behaviors must occur for a period of at least 6 months; a defining feature that conforms to current nosological assessment for other sexual disorders, such as paraphilic disorders. Furthermore, an adequate operational definition of hypersexual disorder includes some frequency of sexual activity and the degree of time consumed while engaged in the sexual act.

Kinsey, Pomeroy, and Martin (1948) described a quantifiable index of sexual frequency, termed total sexual outlet (TSO), which was defined as the number of orgasms achieved through any combination of methods (e.g., intercourse, masturbation) during a specific week. Several large-scale epidemiological studies have utilized this index to determine the normative range of sexual behavior, from which excessive levels of sexual activity may be determined. Based on the epidemiological data, Kafka (2007) proposed a TSO of seven or more orgasms per week to be characteristic of hypersexuality, as this would identify a relatively small portion of the population.

There have been several attempts to determine both normative and statistically excessive rates of sexual activity. In a convenience sample of American males ($n = 5{,}300$), Kinsey et al. (1948) reported that only 7.6 % of males, examined over a period of 5 consecutive years, had an average total sexual outlet of seven or more orgasms per week. Subsequent investigations have shown similar results to the Kinsey et al. study. Atwood and Gagnon (1987), for example, reported that 5 % of high school and 3 % of college age males exhibited a TSO (e.g., masturbation) of seven or more times per week. Laumann, Gagnon, Michael, and Michaels (1994) have conducted the most comprehensive and representative survey of sexual behavior among American adults between the ages of 18 and 59 ($n = 3, 432$). Survey questions covered a variety of sexual behaviors, such as early sexual experiences and masturbation. Results indicated that approximately 80 % of

adults reported having only one or no sexual partners in the previous year, whereas only 3 % of adults reported five or more sexual partners in the previous year. The results also showed that 7 % of males engaged in sex with another person four or more times per week for at least 1 year. With regard to masturbation, 5 % of men and 11 % of women reported to have never masturbated. Thirty-seven percent of men reported masturbating "sometimes," whereas 28 % reported masturbating one or more times per week. Almost 2 % of men reported masturbating on a daily basis for that particular year. In a more recent study, Pinkerton, Bogart, Cecil, and Abramson (2002) reported that undergraduate males ($n=223$) masturbated an average of 12 times per month.

Långström and Hanson (2006) analyzed data obtained from the 1996 national survey of sexuality and health in a large Swedish community sample ($n=2{,}450$). Several sexual outlets were examined, including masturbation and number of sexual partners, and behavioral infrequency was identified using an integer cut-point near the 90th percentile. A high rate of masturbation (defined as 15 times or more per month for men and five times or more per month for women) identified just over 10 % of the sample for each gender. In terms of number of sexual partners, a rate of three or more per year for men and two or more per year for women identified 10 % of men and 12.3 % of women.

There are several problems with purely behavioral definitions of hypersexual disorder. First, there is dissention among researchers regarding the pathological classification of frequent orgasms, suggesting that this endeavor is simply an attempt to classify conventional behavior as disordered (e.g., Giles, 2006). Interestingly, recent data have shown that a greater proportion of individuals may meet the criterion of seven or more orgasms per week than what has been suggested in previous survey studies (Winters, 2010). As such, a significant number of individuals may exhibit a relatively high sexual drive with numerous sexual outlets; however, a *diagnosis* of hypersexuality would not be warranted if their fantasies and/or behaviors do not result in some form of distress or significant impairment in functioning.

In addition, the number of orgasms in a given week is a relatively simplistic indicator of disordered behavior and fails to differentiate among the various ways in which sexual activity is expressed. In fact, both Långström and Hanson (2006) and Laumann et al. (1994), revealed that high rates of sexual activity with a partner (e.g., sexual intercourse) were associated with positive emotional states, whereas high rates of impersonal sexual activity (e.g., masturbation) were more likely associated with negative emotional states, suggesting that type of sexual outlet may be an important factor to consider in sexuality research.

Another problem pertains to the applicability of this criterion to women (Hyde, Delamater, & Byers, 2004), as many women experience difficulty in achieving orgasm, especially during intercourse (Laumann et al., 1994). Although frequent orgasms might indicate the presence of hypersexuality, they are clearly insufficient as a means of measuring or determining hypersexual disorder, as many individuals undoubtedly have frequent sexual activity without experiencing adverse consequences and some might be unable to experience orgasm but still engage in behavior consistent with hypersexual disorder. Additional features of hypersexual disorder, such as the role of negative emotional states (e.g., guilt, shame) and the importance of emotion regulation have been subsumed within various conceptual perspectives.

Conceptual Models of Hypersexual Disorder

Theoretical models are developed to provide heuristic utility for complex behaviors and are intended to explain etiological mechanisms that assist in the formulation of effective treatment. There are several pathophysiological models of hypersexuality that have emphasized the role of neurobiological mechanisms (Bancroft, Graham, Janssen, & Sanders, 2009; Kafka, 2003) or other motivational states related to behavioral addictions (Carnes, 1991), compulsivity (Coleman, 1992), and impulsivity (Schwartz & Abramowitz, 2003).

Neurobiological Models

With regard to neurobiological models, Bancroft and colleagues (Bancroft et al., 2009; Bancroft & Janssen, 2000) proposed a dual-control model of sexual response based on the interaction between principles of sexual excitation and sexual inhibition. In their description of the model, Bancroft and colleagues suggest that most brain functions involve elements of excitatory and inhibitory processes and that the interaction between these mechanisms determines species-specific patterns of sexual behavior. A central tenet of the dual-control model is that individuals vary in their propensity toward sexual excitation (e.g., sexual arousal in the presence of an attractive person) and sexual inhibition (e.g., sexual response becomes reduced when sexual activity is potentially dangerous). It is hypothesized that individuals who demonstrate a low propensity for sexual excitation and/or a high disposition for sexual inhibition are more likely to exhibit problems with sexual arousal and desire (i.e., sexual dysfunctions), whereas, individuals who have a high propensity for excitation and/or a low tendency toward inhibition are more likely to engage in behaviors that are analogous to hypersexuality.

The dual-control model has undergone extensive theoretical development and has received a fair amount of empirical support (Bancroft, 1999; Bancroft & Vukadinovic, 2004),

particularly with regard to sexual risk-taking. Indeed, several studies have shown that a high propensity for sexual excitation and and/or a low propensity for sexual inhibition, as measured by the sexual excitation and sexual inhibition scales, predicted the number of casual sexual partners and was associated with high-risk sexual activity (Bancroft et al., 2004; Carpenter, Janseen, Graham, Vorst, & Wicherts, 2008).

Excitatory and inhibitory mechanisms in the brain are presumed to be adaptive in both animals and humans, and the balance is considered a fundamental feature of neurophysiology. Studies with humans as well as nonhuman primates and rodents have provided support for the excitatory and inhibitory systems within the central nervous system (e.g., Bancroft, 1999). The limbic system, including neuropeptides, steroids, and monoamines, plays a central role in the organization of sexual behavior that includes specific excitatory and inhibitory processes (Bradford, 2000; Kafka, 2003). In a related neurobiological model of sexual dysregulation, Kafka (2003) emphasized the importance of the monoamines, particularly dopamine and serotonin, in the elicitation of the features characteristic of hypersexual disorder (i.e., recurrent and intense sexual urges and behaviors). In general, studies have shown that enhanced dopaminergic neurotransmission is correlated with sexual excitation and that enhanced serotonergic neurotransmission has been associated with sexual inhibition (Kafka, 2003; Maes et al., 2001; Paredes, Contreras, & Agmo, 2000).

In addition to the two neurobiological models indicated above, hypersexual behavior has been conceptualized as an addiction, an obsessive-compulsive disorder, and an impulse-control disorder (Kingston, 2009; also see Kingston & Firestone, 2008 for a review). Although each model contains similar features, such as the criterion for clinical significance (Spitzer & Wakefield, 1999) and the importance placed on disinhibited sexual behavior, the underlying motivational mechanism related to emotion regulation is the fundamental feature distinguishing among these three theoretical models.

Conceptual models of hypersexuality typically emphasize features of compulsivity and/or impulsivity as "driving" motivational states underlying sexual behavior. Although the terms compulsivity and impulsivity are often used interchangeably throughout the literature, these driving mechanisms are fundamentally different (Hollander & Rosen, 2002), such that the former describes individuals who are typically hypervigilant and who demonstrate a desire to avoid harm and reduce anxiety, whereas the latter characterizes individuals who are risk seekers and who are predominantly interested in increasing positive states (e.g., sexual pleasure) (Claes, Vandereycken, & Vertommen, 2002). The distinction between impulsivity and compulsivity has been empirically supported, and several studies have shown positive associations between trait impulsivity and positive emotional states (Abramowitz & Berenbaum, 2007; Claes et al., 2002). Obsessive-compulsive symptoms, conversely, have been associated with negative emotional triggers precipitating the criterion behavior (Ferrão, Almeida, Bedin, Rosa, & Busnello, 2006).

Sexual Addiction

Orford (1978) was one of the first researchers to suggest that hypersexuality was a behavioral syndrome that was characteristic of an addiction. The contemporary formulation of excessive sexual behavior as a behavioral manifestation of addiction, however, is most often attributed to Carnes (1983) book *Out of the Shadows: Understanding Sexual Addiction*. According to Carnes, sexual addiction was characterized as a pathological relationship with a mood altering experience.

The term "addiction" has been conceptualized as a progression from a state which is positive and rewarding, often associated with impulsivity, toward egodystonic experiences of compulsivity, associated with preoccupation, compulsive intoxication, and symptoms of withdrawal (Koob, 2006). Addictive states incorporate elements of physiological dependence on a particular substance that is characterized by tolerance (i.e., the need to use greater amounts of a substance to obtain the desired effect) and/or symptoms of withdrawal (e.g., insomnia) upon removal of the substance. Moreover, psychological dependence, which describes intense craving, compulsive behavior directed toward obtaining the substance, and loss of control, has been emphasized (Lubman, Yücel, & Pantelis, 2004).

Although the traditional notion of addiction has been utilized with substances (e.g., alcohol), there has been a movement in the research community toward the perspective of an overarching structure or underlying addictive process among several disorders (Peele, 1998; Potenza, 2006). According to this broad conceptualization of addiction, any behaviors used to regulate emotional states and that satisfy criteria for addiction (including associated features of tolerance and withdrawal) are potential behavioral manifestations of addiction. Schmitz (2005) and Joranby, Pineda, and Gold (2005) reported similar phenomenological characteristics between substance use disorders and other behavioral disorders, such as compulsive buying, pathological gambling, and eating disorders. With regard to hypersexual disorder, similarities between neurological substrates of addiction (e.g., dopaminergic dysregulation) and sexual appetitive behavior have been identified to support the conceptualization of excessive sexual behavior as a sexual addiction (Keane, 2004).

The movement toward categorizing behaviors, including sexual behavior, under a singular model of addiction has been challenged (Coleman, 1992; Keane, 2004), given the tendency for expansive models to oversimplify complex phenomena and to obscure key differences between disorders.

Although identifying commonalities across chemical and nonchemical addictions promotes heuristic utility, it neglects to elucidate key features among disorders and, therefore, results in decreased clinical utility.

Coleman (1990) argued that the expansive model of addiction failed to adequately differentiate between impulsivity and compulsivity and that each term was often used interchangeably in the literature. As described earlier, the defining characteristics of compulsivity and impulsivity are different and confusing; these terms have important treatment implications, especially when interventions that are designed for behavioral motivations associated with impulsivity are inappropriately applied to behaviors guided by compulsivity (Kingston & Firestone, 2008). Such criticisms have led to the formulation of hypersexual disorder as either a compulsive or impulsive-based disorder.

Compulsive/Impulsive Sexual Behavior

Coleman (1987, 1990, 1992) has been one of the primary advocates for conceptualizing hypersexual disorder as an obsessive-compulsive disorder, based on the shared phenomenological features between the two syndromes. In terms of these features, obsessions are intrusive, repeatedly experienced, and associated with anxiety and/or tension (Black, Kehrberg, Flumerfelt, & Schlosser, 1997). Moreover, the behaviors evident in both disorders are enacted to reduce feelings of anxiety and are often followed by feelings of distress (Coleman, 1992; Raymond, Coleman, & Miner, 2003).

Several studies have supported the predominant features of the sexual compulsivity model, such that individuals repeatedly experience intrusive thoughts that are associated with anxiety and that sexual behaviors are acted upon in order to reduce negative emotional states. Black et al. (1997), for example, reported that 42 % of individuals ($n=36$) exhibiting hypersexuality reported intrusive and repetitive sexual fantasies that were experienced as extremely distressful in nature. They also found that the majority of participants engaged in repetitive sexual behavior, which was initially resisted, and subsequent to the sexual behavior was followed by negative self-evaluation. Moreover, participants reported engaging in sexual behavior in response to specific negative emotional states (e.g., anxiety). Raymond et al. (2003) reported similar results, such that a significant proportion of individuals exhibiting hypersexuality attempted to resist sexual thoughts and urges and that behavioral action (e.g., sexual behavior) was intended to provide temporary relief from anxiety and tension.

The studies described above show important similarities between hypersexuality and obsessive-compulsive disorder and indicate some support for the compulsivity-based conceptualization (Claes et al., 2002).

However, there has also been contrasting evidence with regard to the predominant symptomatology exhibited by individuals with hypersexuality leading to the adoption of an impulsivity-based conceptualization. As indicated earlier, impulsive disorders are characterized by the failure to resist an impulse, drive, or temptation to commit an act that is harmful to oneself or others (APA, 2000). According to this conceptualization, there is often an increased sense of arousal prior to the behavior, a sense of gratification or relief during the behavior, and, for some, feelings of guilt following the act. In support of this conceptualization, Schwartz and Abramowitz (2003) examined a small sample ($n=12$) of patients referred to a clinic for "sexual obsessions." Results indicated that the sexual thoughts reported by patients exhibiting features of hypersexual disorder were predominantly associated with high levels of sexual arousal and low levels of fear and/or anxiety. Despite the small sample, Schwartz and Abramowitz concluded that the compulsivity model was insufficient and that impulsivity was, perhaps, a more accurate characteristic of individuals with hypersexual disorder.

Summary of Conceptual Models

Conceptual models of hypersexual disorder have focused on important neurological mechanisms as well as diverse motivational states driving behavior. With regard to motivational mechanisms, compulsivity and impulsivity have been essential constructs in the development of the sexual addiction, sexual compulsivity, and sexual impulsivity models.

Current data, in my opinion, do not currently support the sexual addiction, sexual compulsivity, or sexual impulsivity conceptualizations. In fact, several studies have explored motivational mechanisms of hypersexuality, and results have been largely inconsistent with regard to the primary mechanisms driving behavior. As indicated earlier, Black et al. (1997) found that negative emotional states (e.g., depression) were predominant reasons for some individuals engaging in sexual activity and that prior urges were distressful and unwanted, whereas, in contrast, Schwartz and Abramowitz (2003) reported that individuals with hypersexual disorder deliberately acted on their sexual urges to promote or achieve sexual gratification and that such behavior was associated with positive emotional states.

In addition to comparisons *across* samples, such contradictions in motivational states have been indicated *within* samples. Raymond et al. (2003) reported that one third of their participants described their thoughts to be intrusive and that 87 % attempted to resist such urges; supporting the compulsivity-based conceptualization. However, mean scores on the impulsivity subscale of the Minnesota Personality Questionnaire (Tellegen, 1992) were actually

indicative of higher levels of impulsivity when compared to normative samples.

Further support for the interrelationship between compulsivity and impulsivity has been demonstrated in other behavioral disorders. In a recent review, Grant and Potenza (2006) described several conditions, traditionally considered impulsive (i.e., pathological gambling, trichotillomania, kleptomania) and demonstrated that features associated with compulsivity were evident at varying points in the behavioral progression. Similarly, Matsunaga et al. (2005) investigated the existence of impulsive features among 153 Japanese adult patients diagnosed with OCD. Results indicated that a significant proportion of the sample (29 %) presented with impulsive traits in addition to compulsive ones. These results suggest that both impulsive and compulsive traits can be evident among individuals with hypersexuality and that a model focused predominantly on just one type of motivational drive is insufficient.

Clearly, an adequate conceptualization of hypersexual disorder must allow for the inclusion of both impulsive and/or compulsive features. The obsessive-compulsive and impulse-control disorder models negate the inclusion of diverse motivational states guiding behavior. Interestingly, substance addiction models have incorporated impulsivity and compulsivity as essential constructs, which interact with one another typically in a sequential fashion. Koob (2006), in his model of drug addiction, described addictive behavior as a progressive state from impulsivity (i.e., using the substance for pleasure) to compulsivity (i.e., using the substance to escape from negative emotional states). Additionally, Goodman (1993) stated that the function of excessive sexual behavior was both to produce pleasure and provide escape from pain, which, again, highlighted the divergent motivations underlying excessive sexual behavior.

Despite the potential utility of the addiction model as a conceptual model for hypersexuality, several problems remain, including, for example, the widespread and ambiguous use of the term "addiction" (see Kingston & Firestone, 2008 for a more detailed and critical review of the sexual addiction model). In addition, the progression from impulsivity to compulsivity, as described in some addiction models, may be evident among individuals exhibiting hypersexual disorder. Alternatively, there is also the possibility that the progression is reversed; that is, individuals may engage in sexual behaviors to regulate negative mood and then, due to principles of reinforcement, engage in such activities to increase pleasure and positive mood states.

Given the problematic application of current conceptual models to the heterogeneous presentation of hypersexuality, a consistent diagnostic and conceptual framework is needed. Kafka (2007, 2010) has proposed an alternative model of hypersexual disorder that is focused on culturally normative sexual outlets. This model of hypersexual disorder is based on current nosological nomenclature and includes criteria that are supported by previous theoretical and empirical research.

Table 1 DSM-5 proposed criteria[a] for hypersexual disorder

A. Over a period of at least 6 months, recurrent and intense sexual fantasies, sexual urges, and sexual behavior in association with four or more of the following five criteria:
A.1 Excessive time is consumed by sexual fantasies and urges, and by planning for and engaging in sexual behavior.
A.2 Repetitively engaging in these sexual fantasies, urges, and behavior in response to dysphoric mood states (e.g., anxiety, depression, boredom, and irritability).
A.3 Repetitively engaging in sexual fantasies, urges, and behavior in response to stressful life events.
A.4 Repetitive but unsuccessful efforts to control or significantly reduce these sexual fantasies, urges, and behavior.
A.5 Repetitively engaging in sexual behavior while disregarding the risk for physical or emotional harm to self or others.
B. There is clinically significant personal distress or impairment in social, occupational, or other important areas of functioning associated with the frequency and intensity of these sexual fantasies, urges, and behavior.
C. These sexual fantasies, urges, and behaviors are not due to direct physiological effects of exogenous substances (e.g., drugs of abuse or medications), a co-occurring general medical condition, or to manic episodes.
D. The person is at least 18 years of age.
Specify if masturbation, pornography, sexual behavior with consenting adults, cybersex, telephone sex, and strip clubs Source: http://www.dsm5.org

DSM-5 Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition

[a]DSM proposed criteria were rejected and will not appear in the upcoming DSM5 text

An operational and criterion-based definition of hypersexual disorder has been proposed (Kafka, 2010) that includes four criteria (see Table 1). These criteria include non-paraphilic recurrent and intense sexual fantasies, urges, and behaviors that result in adverse consequences and clinically significant distress or impairment in important areas of functioning. These symptoms must persist for at least 6 months and are independent of drug use, a general medical condition, or a manic episode. Following the diagnosis, an evaluator would specify the type of normative sexual behavior (e.g., masturbation, use of pornography, sexual behavior with consenting adults, etc.). Kafka as well as others (Briken, Habermann, Berner, & Hill, 2007; Kingston, 2009; Kingston & Firestone, 2008) have highlighted the importance of comorbidity, particularly between hypersexual disorder and the paraphilias.

One of the central advantages of Kafka's model of hypersexual disorder is that it is not entirely bound to current explanatory theories with predetermined etiological mechanisms underlying the behavior (i.e., models based on addiction, compulsivity, and impulsivity). However, these criteria

are somewhat biased toward features of compulsivity. Nevertheless, Kafka's model encourages evaluators to assess for a diversity of motivational mechanisms and other features important for the development of effective interventions.

Another advantage is the implication for nosological assessment. Currently, the DSM-5 does not include a formal diagnosis of hypersexual disorder and attempts at providing an operational definition were rejected.

Despite some recent evidence showing hypersexual disorder to have good reliability and validity (Reid et al., 2012), several researchers have expressed caution about defining this construct as a disorder in current nosology (Winters, 2010; Winters, Christoff, & Gorzalka, 2010). Winters and colleagues correctly identified that there is a significant lack of independent empirical evidence supporting the inclusion of this disorder in current nosology. Additionally, as discussed previously, the pathophysiology of the syndrome is unclear, and the fact that several of the proposed sub-criteria indicated earlier emphasize the compulsive aspects of the behavior may be inappropriate for many individuals.

Winters (2010) has also noted that the distinction between volitional impairment and sexual desire/drive is not entirely clear, and recent data have shown that behaviors associated with hypersexual disorder (e.g., protracted promiscuity) may simply be reflecting elevated levels of sexual drive (Winters et al., 2010). The fact that hypersexual disorder may simply reflect high sexual drive, without an orthogonal construct related to sexual dyscontrol, is inconsistent with previous conceptual models and is problematic for the inclusion of the putative syndrome in current nosology. Of note, hypersexual disorder was ultimately rejected for inclusion in the DSM5 and will not appear anywhere in the upcoming text (www.dsm5.org).

Psychological Tests, Questionnaires, and Inventories

Valid methods of assessing hypersexual disorder are needed in order to further our understanding of this syndrome. Importantly, the veracity of self-reported symptoms will likely depend on the context of the assessment. Non-forensic evaluators will encounter individuals who are relatively concerned about their excessive sexual thoughts or behaviors and, as such, may be motivated to disclose relevant aspects of their sexual behaviors. However, there is some evidence showing that questions related to sexuality and sexual dysfunction result in reduced disclosure among non-forensic populations (Meston, Heiman, Trapnell, & Paulhus, 1998). In contrast, forensic evaluators assess individuals who are, more often than not, reluctant to disclose at least some aspects of their sexual behaviors (Mills & Kroner, 2005). There are a variety of self-report and psychological inventories designed specifically to assess recurrent and intense sexual fantasies and behaviors, particularly for the paraphilias [e.g., the Sex Inventory; (Thorne, 1966), the Aggressive Sexual Behavior Inventory (Mosher & Anderson, 1986), the Coercive Sexual Fantasies Questionnaire (Greendlinger & Byrne, 1987), and the Clarke Sex History Questionnaire (Langevin, Handy, Paitich, & Russon, 1985)]. Several of these instruments (e.g., the Clarke Sex History Questionnaire) contain validity scales that detect impression management.

Unfortunately, far less attention has been directed toward psychological inventories for hypersexual disorder. Table 2 lists some of the more common screening tools and inventories that may be potentially useful in the assessment of normophilic hypersexual disorder. Among these instruments, the Sexual Addiction Screening Test (SAST), the Sexual Compulsivity Scale (SCS), and the Compulsive Sexual Behavior Inventory (CSBI) have received a fair amount of empirical attention. Unfortunately, these scales are generally transparent and, thus, are vulnerable to self-reporting biases. Many evaluators and researchers have utilized measures of social desirability (e.g., *The Balanced Inventory of Desirable Responding*; Paulhus, 1984) as a control variable. However, recent meta-analyses have indicated that social desirability may be an important aspect of personality (Li & Bagger, 2006), which has led some (see Mills & Kroner, 2006) to suggest that partialling out social desirable responding may distort the true relationship between the independent variable and the outcome measure.

The Sexual Addiction Screening Test (SAST; Carnes, 1991) is likely the most widely used screening tool to assess the presence of hypersexual disorder. The measure can be scored continuously or dichotomously. Weiss (2004) indicated that a score of 14 or greater is characteristics of sexual addiction, whereas others (e.g., Carnes, 1989; Marshall, Marshall, Moulden, & Serran, 2008) have stated that a score of 13 accurately reflects hypersexuality, given the significant association with self-reported sexual addiction. Initial psychometric evaluations on the SAST produced good internal consistency (alpha = .85 to .95) and discriminant validity (Carnes, 1989). A recent investigation has shown that the SAST measures a single underlying construct with good reliability and validity (Nelson & Oehlert, 2008); these results have been used with sexual offending populations (Marshall et al., 2008).

The Sexual Compulsivity Scale (SCS) (Kalichman et al., 1994) is a 10-item Likert-type self-report measure. Respondents are asked to endorse the extent to which they agree with a series of statements reflecting hypersexuality and preoccupation with sexual behaviors. Specific items were derived from a self-help guide for problematic sexual behaviors (e.g., my sexual appetite has gotten in the way of my relationships). The SCS scale has demonstrated good internal consistency (alpha = .84 to .89) and construct validity

Table 2 Some potentially useful measures in the assessment of hypersexual disorder

Test (source)	Description
Compulsive Sexual Behavior Inventory (Coleman, Miner, Ohlerking, & Raymond, 2001)	The CSBI is a 28-item self-report measure of hypersexual disorder that includes items related to historical experiences of abuse, volitional impairment, and using sex to cope with negative emotional states.
Garos Sexual Behavior Index (Garos & Stock, 1998)	The GSBI is a 72-item Likert-type self-report measure that assesses the cognitive, affective, and behavioral dimensions of hypersexual disorder. The measure includes four subscales: discordance, sexual obsession, values, and sexual adequacy.
Hypersexual Behavior Inventory (Reid & Garos, 2007)	The HBI is a 19-item self-report measure that examines the use of sex to cope with emotional distress, volitional impairment, and associated negative consequences resulting from sexual behavior.
Internet Sex Screening Test (Delmonico, 1999)	The ISST has undergone several revisions and now includes 117 items with eight subscales (e.g., online and offline sexual compulsivity). Items were adapted from the SAST.
MIDSA (Knight & Cerce, 1999)	The MIDSA is a computerized self-report inventory that includes over 4,000 items resulting in 55 scales, including 3 sexualization scales: Sexual Compulsivity (9 items related to an inability to control sexual urges); Sexual Preoccupation (7 items measuring how often a person thinks about sex); and Hypersexuality (5 items measuring sexual drive).
Sexual Addiction Screening Test (Carnes, 1991)	The SAST is a 25-item self-report measure that requires individuals to respond, in a yes/no fashion, as to whether a statement is characteristic of them. Scores of at least 13 have been suggested to reflect hypersexual disorder.
Sexual Compulsivity Scale (Kalichman & Rompa, 1995)	The SCS is a 10-item Likert-type self-report measure. Participants are asked to endorse the extent to which they agree to a series of statements reflecting hypersexuality and preoccupation with sexual behavior.
Sexual Dependency Inventory-Revised (Carnes & Delmonico, 1996)	The SDI-R includes 179 items in which individuals rate the frequency and power of the statement in their fantasy or actual life. A series of factor analyses produced 10 subscales based on distinct categories of hypersexual disorder (e.g., anonymous sex, fantasy sex, seductive role-playing).
Sexual Inhibition/Sexual Excitation Scales (Janssen, Vorst, Finn, & Bancroft, 2002)	The SIS and SES scales are based on the dual-control model of male sexual response which reflects individual differences in propensities for sexual excitation and sexual inhibition. Questions reflect situations that are either sexually exciting or threatening, and individuals describe their typical sexual response. Factor analyses identified a single excitation factor and two inhibition factors based on threat of performance and threat of performance consequences.
Sexual Outlet Inventory (Kafka, 1991)	The SOI is a clinician administered scale that includes 10 items measuring the frequency of sexual fantasies, urges, and behaviors, and is based on the construct of total sexual outlet.
Sexual Sensation Seeking Scale (Kalichman et al., 1994)	The SSS scale is an 11-item likert-type self-report measure. Respondents indicate the extent to which each statement is characteristic of them.

MIDSA The Multidimensional Inventory of Development, Sex, and Aggression

(Kalichman & Rompa, 2001) and has been used widely for assessing sexual risk-taking among individuals with HIV.

The Compulsive Sexual Behavior Inventory (CSBI) (Coleman et al., 2001) is a 28-item self-report measure of hypersexual disorder that includes items related to historical experiences of abuse, volitional impairment, and using sex to cope with negative emotional states. The initial validation study (Coleman et al., 2001) was conducted with 1,026 Latino men who had reported having had sexual contact with other men. Results of the initial validation study suggested a two-factor structure: behavioral dyscontrol and interpersonal violence. The measure also demonstrated good reliability and validity in the developmental sample as well as in two more recent investigations (Lee, Ritchey, Forbey, & Gaither, 2009; Miner, Coleman, Center, Ross, & Rosser, 2007).

The Hypersexual Behavior Inventory-19 (HBI-19) (Reid & Garos, 2007) is a three-factor, 19-item, self-report measure that assesses features of hypersexuality according to the proposed criteria for hypersexual disorder reported earlier. Items are rated along a 5-point Likert-type scale, yielding a total score ranging from 19 to 95. A score of 53 or higher is considered to be clinically significant. The HBI demonstrated convergent validity with other measures of hypersexuality and related constructs. Internal consistency was high in the initial validation sample ($\alpha = .89$ to .95) and in a subsequent field trial ($\alpha = .96$) (Reid et al., 2012).

In addition to the inventories listed above, there are several screening measures which have been developed specifically for online problematic sexual behavior, although most lack validation (e.g., Young, 2006). One exception is the Internet Sex Screening Test (Delmonico, 1999), which has undergone several revisions and now contains 117 items with eight subscales highlighting varying facets of online sexual behavior. One subtest relates to online sexual compulsivity and

examines indicators of hypersexual disorder (e.g., repeated efforts to stop the sexual behavior), whereas another subtest pertains to offline sexual compulsivity, which utilizes items adapted from the SAST. There is limited information regarding the psychometric properties of the most recent version of the Internet Sex Screening Test, but earlier versions have shown low to moderate internal consistency (alpha's = .51 to .86) (Delmonico & Griffen, 2008).

Hypersexual Disorder Among Sexual Offending Populations

Prevalence

There are few empirical investigations examining the prevalence of hypersexual disorder among sexual offenders. Initially, Carnes (1989) suggested that approximately 50 % of sexual offenders would exhibit hypersexual features, although he provided no empirical data supporting these figures. Subsequent studies, however, have supported Carnes' claims of elevated rates of hypersexual disorder or features among samples of sexual offenders. For example, Blanchard (1990) administered self-report measures to offenders and, along with detailed file review, found that 55 % of his sample of sexual offenders ($n = 107$) met criteria for sexual addiction, although his criteria were not clear and the reliability of his diagnosis was not reported.

More recently, Marshall and colleagues (Marshall et al., 2008, 2009, 2009; Marshall & Marshall, 2006) have examined the prevalence of hypersexual disorder in samples of incarcerated sexual offenders, and they have compared these rates with socio-economically matched community controls. Hypersexual disorder was determined using a clinical cutoff score on the SAST (Carnes, 1989). Results were generally consistent with data reported by Carnes and Blanchard, such that approximately 44 % of sexual offenders were considered to be hypersexual, whereas only 18 % of the socio-economically matched community controls met the criterion.

Several more recent studies employing strict, objective criteria have reported lower rates of hypersexuality among sexual offending populations than the rates reported earlier. Kingston and Bradford (2013) examined the behavioral criterion of hypersexual disorder (i.e., self-reported Total Sexual Outlet) among 553 adult male sexual offenders. Approximately 12 % of the sample, based on their self-report, met the clinical cutoff for problematic hypersexuality (Total Sexual Outlet ≥ 7). Briken (2012) examined a representative sample of 244 adult male sexual offenders with child victims and reported that only 9 % met the diagnostic criteria for Hypersexual Disorder, as defined using the proposed DSM-5 criteria (www.dsm5.org).

Hypersexual Disorder and Sexual Aggression

Features of hypersexual disorder (e.g., sexual self-regulation problems, the drive for impersonal sex, and compulsive masturbation) are essential components among several multifactorial theories and developmental models of sexually coercive behavior (Malamuth, 2003; Ward, Polaschek, & Beech, 2006). The confluence model (Malamuth, 2003), for example, was constructed from research demonstrating that sexual aggressors possess several key characteristics that are present both developmentally and at the time of aggression. These characteristics have been empirically reduced into two main clusters of characteristics or paths labeled hostile masculinity and impersonal sex. Of relevance to this review, the impersonal sex path is characterized by a noncommittal, game-playing orientation toward sexual activity and reflects individual differences in the willingness to engage in such acts without closeness or commitment (Malamuth, 2003). Knight and Sims-Knight (2003, 2004) have also emphasized the role of hypersexuality in adult and juvenile sexual offenders, although emphasis is placed on sexual drive, sexual preoccupation, and sexual deviance rather than promiscuity and a preference for impersonal sex, as these former variables differentiated sexually coercive and noncoercive males.

A number of investigations utilizing self-report among college males have shown that sexually coercive males report higher levels of sexual behaviors and fantasies, including number of sexual partners, when compared to noncoercive males (Abbey, McAuslan, & Ross, 1998; Malamuth, 2003; Malamuth, Linz, Heavey, Barnes, & Acker, 1995). With regard to forensic samples, Gebhard, Gagnon, Pomeroy, and Christenson (1965) found that sexual offenders as a group were categorized by more extensive sexual experiences, such as number of sexual partners (compared to non-offending men). Similarly, Knight and Sims-Knight (2003, 2004) have reported that sexual drive and sexual preoccupation discriminated sexually coercive males from noncoercive males and that such features of hypersexuality were correlated with pornography use, offense planning, and self-reported hostility toward women (Knight, 1999; Knight & Sims-Knight, 2004). More recently, Lussier, Leclerc, Cale, and Proulx (2007) examined the developmental antecedents to sexual offending in 553 adult male sexual offenders and found elements of impersonal sex, sexual compulsivity, and sexual preoccupation (e.g., all identified features associated with hypersexuality) to be important predictors of sexual coercion.

Hanson and Harris (2000) identified sexual preoccupation (generally defined as recurrent sexual thoughts and/or behaviors directed toward numerous casual or impersonal sexual encounters) as one of the most important dynamic risk factors for sexual offending. This finding was subsequently

replicated by Hanson, Harris, Scott, and Helmus (2007). In one of the most recent and comprehensive meta-analyses of adult male sexual offenders, Hanson and Morton-Bourgon (2005) again found that sexual preoccupation was significantly associated with sexual recidivism (d=.39) and any violent recidivism (d=.28). Most recently, Kingston and Bradford (2013) found that the behavioral criterion of hypersexual disorder was significantly associated with sexual recidivism (ROC=.65; 95 % CI=.58 to .71) and violent (including sexual) recidivism (ROC=.67; 95 % CI=.61 to .72). Given the relatively consistent relationship between sexual preoccupation and sexual aggression, it is not surprising that elements of hypersexuality have been included as risk indicators in commonly used personality and actuarial measures for sexual offenders (Hanson & Harris, 2000; Hare, 1991; Prentky, Harris, Frizzel, & Righthand, 2000).

Treatment of Hypersexual Disorder

Hypersexual behaviors can manifest as repetitive sexual fantasies, urges, and behaviors that are directed toward culturally sanctioned sexual activities (e.g., masturbation, sex with several consenting adults over time) or fantasies or behaviors that are defined as paraphilic, that is, directed toward nonhuman objects, the suffering or humiliation of oneself or one's partner, or children/nonconsenting partners (Kingston et al., 2007, 2010; Kingston & Yates, 2008). Treating sexual preoccupation involving paraphilic sexual outlets has been widely discussed in the literature (e.g., Laws & O'Donohue, 2008). Unfortunately, far less attention has been directed toward treating excessive sexual behaviors that are culturally normative in both forensic and non-forensic populations. The aforementioned theoretical conceptualizations of hypersexual disorder have been used in developing specific interventions and overarching treatment models, which included pharmacological treatment, supportive group psychotherapies, and more structured cognitive-behavioral therapies (Kafka, 2007).

Pharmacological Treatment

The association between neurophysiological systems and sexual dysregulation, as emphasized in the two neurobiological models reviewed earlier, has been used to support a pharmacological approach to treating hypersexual disorder. Unfortunately, few well-controlled studies have been conducted evaluating pharmacological interventions for the treatment of hypersexual disorder.

Although several studies have investigated the utility of psychotropic interventions with the paraphilias (e.g., Bradford, 2000), far less attention has been directed toward non-paraphilic sexual behaviors. However, there have been case reports (e.g., Grant & Won-Kim, 2001) and some small, open-label trials supporting the utility of Selective Serotonin Reuptake Inhibitors (SSRIs) (Guay, 2009; Kafka, 2007). Kafka (1991, 2007) reported results from open-label trials of sertraline or fluoxetine in very small samples (n=10–12). Improved symptoms of hypersexuality, including total sexual outlet, were evident, and individuals were generally able to maintain conventional sexual interests and behaviors. In addition to the SSRIs, several other pharmacological agents have been identified as possible treatment options for hypersexual disorder, all of which have been reported in case reports or case series. Recently, Guay (2009), in his review of the pharmacological interventions for paraphilic and non-paraphilic sexual behaviors, found that most interventions targeted either serotonin or testosterone. However, several reports were identified that described the use of mood stabilizers, neuroleptics, opioid antagonists, anticonvulsants/anxiolytics, and antiandrogens in the treatment of non-paraphilic hypersexual disorder. Guay identified various methodological limitations in these studies, including sampling biases and insufficient sample sizes.

Psychological Treatment

Various psychotherapeutic approaches have been used for the treatment of hypersexual disorder, although there are very limited data addressing efficacy of any particular treatment approach. Psychological treatment is typically provided in a residential treatment setting that includes both individual and group therapy modalities. Therapeutic programs are relatively integrative, without strict adherence to any one particular theoretical orientation, and, as such, elements of cognitive-behavioral therapy, relapse prevention techniques, experiential therapy, and support groups based on the 12-step recovery model are often utilized.

Psychological interventions typically include psychoeducation that is provided in the early phases of treatment and provides the individual with information regarding hypersexuality, healthy sexuality, and relationship functioning (Edwards & Colmean, 2004). Treatment programs based on cognitive-behavioral theory emphasize the role of and interrelationships between cognition, affect, and behavior. As such, the identification and modification of cognitive distortions that support and rationalize hypersexual behavior is crucial, and underlying core beliefs about the self and others (e.g., defectiveness/shame) are modified. Relapse prevention strategies are also used, which help the individual to recognize and anticipate high-risk situations associated with previous hypersexual behaviors and to implement effective coping strategies and problem-solving techniques.

In addition to the specific interventions that are used in both individualized and group formats, most treatment programs encourage enrollment in self-help support groups. Carnes (1989) has been one of the predominant advocates for a group psychotherapy model based on the 12-step approach for substance-based addictions.

12-step programs are nonsectarian spiritual programs emphasizing the role of a higher spiritual being and the acknowledged loss of personal control over the addictive substance (or behavior). While such programs designed for hypersexual disorder closely adhere to the principles outlined for substance-based addictions, there is one fundamental difference with regard to the degree of abstinence, such that abstinence is not a stated goal of the program, although celibacy contracts are often recommended while an individual addresses initial treatment targets (Carnes, 1989).

As indicated earlier, there are few well-designed outcome studies regarding treatment efficacy for hypersexual disorder. Quadland (1985) conducted one of the earlier outcome investigations of an outpatient psychotherapeutic group of 30 gay or bisexual men exhibiting features characteristic of protracted "promiscuity." The average course of therapy was 20 weeks, and interventions focused on developing insight and changing problematic sexual behaviors. Results indicated self-reported reductions in the number of different sexual partners, the percent of "one-night stands," and the percent who engaged in sex in public settings.

Wan, Finlayson, and Rowles (2000) reported treatment outcomes for 59 men and women who participated in a 28-day residential treatment program for hypersexuality. Most participants were treated between 1995 and 1998, and follow-up data were gathered via a structured telephone interview. Treatment consisted of psychoeducation, group psychotherapy, and 12-step support meetings. Results indicated that 71 % of individuals subsequently self-reported engaging in at least some of their sexual behaviors that were previously described as problematic.

Klontz, Garos, and Klontz (2005) reported treatment outcome data for 38 male and female self-reported "sexual addicts" who attended a residential treatment program. Treatment was described as an integrated experiential and cognitive-behavioral approach and primarily involved 32 h of intensive psychotherapy, along with additional time devoted to psychoeducation and mindfulness training. A variety of more specific interventions were also noted, including psychodrama, role-playing exercises, as well as art and music therapy. Treatment efficacy was assessed using the Global Measure of Symptom Severity (Garos & Stock, 1998) and the Brief Symptom Inventory (Derogatis, 1993). Results indicated a significant self-reported decrease in psychological distress, sexual obsessions, sexual preoccupation, and difficulty controlling sexual impulses. These changes were stable at the 6-month follow-up period.

Finally, there have been some theoretical concerns identified with twelve-step programs, and several researchers have criticized the utility of the 12-step approach for both substance-based addictions and other "behavioral" addictions. In particular, Coleman (1990) and Keane (2004) have suggested that problems identified within the 12-step treatment approach for hypersexual disorder are indicative of the inappropriate adaptation of the addiction model to out-of-control sexual behavior. With regard to the adapted 12-step approach for sexual behaviors, one predominant concern pertained to the utilization of celibacy contracts in the initial phases of treatment. In addition to being viewed as restrictive and moralistic, the focus on abstinence has been considered problematic and not consistent with positive approaches to healthy sexuality. More specifically, requiring individuals to refrain from sexual activity may reinforce negative and maladaptive attitudes toward sexuality (e.g., sex is inherently bad).

Another predominant concern with the 12-step approach pertains to the notion of rejecting personal control. This perspective is diametrically opposed to empirically validated cognitive-behavioral treatment, in general, and specific models of rehabilitation, in particular. It is important to note, however, that existing investigations have found support groups to be effective for substance dependence (e.g., Ståhlbrandt, Johnsson, & Berglund, 2007) and hypersexuality (e.g., Carnes, 1991). Unfortunately, serious methodological concerns, such as biased samples, have been identified in such studies (Kafka, 2007). Additional concerns evident in the outcome literature include the use of self-report measures, the lack of standardized assessment tools of symptomatology, the relatively short follow-up periods, as well as the lack of control groups.

Psychological treatment of hypersexual disorder should emphasize individualized case conceptualization, which is conducted in collaboration with the individual, reflecting therapeutic changes as they occur. Case conceptualization explores important developmental processes associated with hypersexuality, in addition to identifying affective, behavioral, cognitive, and contextual factors that culminate in unwanted sexual behavior. This process highlights important targets for treatment, such as core beliefs surrounding shame and guilt, emotional and sexual self-regulation problems, insecure attachment formation, previous trauma, and couple/family dysfunction.

Case conceptualization should also focus on the underlying motivational mechanisms that drive sexual behavior. In this review, the importance of differentiating compulsivity and impulsivity among individuals exhibiting hypersexual disorder has been emphasized, which underscores several implications for treatment. As indicated earlier, relapse prevention techniques are useful in identifying high-risk situations and developing comprehensive coping plans.

However, such techniques may be more suitable for individuals with demonstrable skills deficits with behavioral regulation (i.e., compulsive behavior), whereas individuals guided by sensation-seeking and/or behaviors that are ego-syntonic may benefit more from interventions that target underlying core schema and effective emotion management, rather than specific skill deficits.

In addition, impulsivity is a trait associated with decreased treatment efficacy, which is most likely due to the difficulty in motivating such individuals to stop pleasurable activity (Moeller & Dougherty, 2002; Oldham, Hollander, & Skodol, 1996). Maccallum, Blaszczynski, Ladouceur, and Nower (2007) provided support for the negative association between impulsivity and treatment success in an examination of 60 pathological gamblers attending treatment. Results indicated that lower levels of impulsivity were associated with better treatment response in addition to a nonsignificant trend toward treatment completion when compared to individuals with higher levels of impulsivity. As such, individuals with impulsive sexual behaviors would benefit substantially from intensive motivational interviewing techniques in order to facilitate both treatment completion and successful treatment outcomes, whereas individuals guided by compulsivity may benefit less from this approach.

Conclusions and Future Directions

Problematic and excessive sexual behavior has been variously defined throughout the literature (Kingston & Firestone, 2008). Despite such descriptive diversity, hypersexual disorder has been characterized by volitional impairment over excessive sexual fantasies, urges, and/or behaviors, which are accompanied by adverse consequences and/or personal distress. It has been predominantly studied in noncriminal populations, although the relevance to forensic samples has been emphasized (Kingston, 2009; Kingston & Bradford, 2013; Marshall & Marshall, 2006).

Unfortunately, definitions of hypersexuality have been unsystematically applied without any concrete understanding of the underlying theoretical tenets of the putative conceptual model (Kingston & Firestone, 2008; Winters, 2010). Classification systems are intended to elucidate etiological mechanisms and symptom profile and facilitate effective treatment. Unfortunately, several contradictory explanatory models have been utilized to explain hypersexuality, and clinicians and researchers have typically adopted one descriptive model that is unidimensional (i.e., focused on a particular motivational mechanism underlying the behavior) and have applied it to all individuals presenting with such behavior. This approach clearly contrasts with recent data indicating a more complex relationship among compulsive and impulsive traits.

In this chapter, I have supported an atheoretical and criterion-based perspective for hypersexual disorder (APA, 2010; Kafka, 2010), as it allows for the assessment of varied motivational drive states important for the design and implementation of effective treatment. Kafka has provided criteria for individuals exhibiting disinhibited sexual behavior with accompanying distress surrounding culturally normative sexual outlets, although such criteria are biased toward features of compulsivity. In addition, some researchers (e.g., Winters, 2010) have suggested that incorporating Kafka's criteria in current nosology may be premature, as the pathophysiology of the putative syndrome is not entirely clear.

In addition to the problems with conceptualization and diagnosis, there has been limited progress made with regard to the assessment and treatment of hypersexual disorder. The review provided herein indicated the predominant assessment measures that have at least some empirical support for assessing hypersexual disorder; although, future research is needed with regard to validating these measures across samples, particularly among cybersex users and sexually aggressive populations.

Finally, various pharmacological and psychotherapeutic approaches have been applied to the treatment of hypersexual disorder, although there are virtually no well-controlled studies addressing efficacy of any particular treatment approach. There is some evidence that SSRIs are associated with reduced symptoms of hypersexuality, including total sexual outlet, without associated reductions in conventional sexual interests and behaviors. Additionally, several outcome studies (e.g., Klontz et al., 2005) have identified the utility of residential treatment programs that utilize an integrative treatment approach. Unfortunately, these studies have suffered from several methodological limitations, such as lack of control groups and the use of self-report inventories and measures that have not been validated.

In this review, I have emphasized the importance of a comprehensive and individualized case conceptualization that explores important developmental processes associated with hypersexuality, as well as associated affective, behavioral, cognitive, and contextual factors related to the behavior. An individualized case conceptualization will also identify client-specific relevant treatment targets, such as core beliefs or schema, self-regulation problems, insecure attachment, and previous trauma. Importantly, a functional assessment of whether the sexual behavior is guided by impulsivity or compulsivity informs whether interventions should involve motivational enhancement or the recognition of high-risk situations and the facilitation of skill development.

Unfortunately, there are few well-designed outcome studies regarding the treatment of hypersexual disorder and, as such, it is unclear as to the most appropriate therapeutic modality. However, current evidence in related areas suggests

that cognitive-behavioral approaches may be useful (Kingston & Firestone, 2008). Given the importance of self-regulatory failure and the heterogeneity of the motivational mechanisms underlying the behavior, treatment approaches that are flexible and account for impulsive and/or compulsive processes are likely to be more successful than rigid/manualized-based treatment programs.

The evidence reviewed above justifies a refinement in the classification of hypersexuality for future editions of the DSM. Specifically, individuals who experience disinhibited sexual urges, fantasies, and/or behaviors involving culturally normative aspects of sexual expression should be accounted for in future nosological systems, and the evidence supports an atheoretical and criterion-based approach to conceptualization and diagnosis (Kafka, 2010). Given that accurate conceptualization and adequate diagnosis of psychological disorders informs effective treatment, a consistent approach to classification will promote future research into effective assessment and treatment of individuals presenting with hypersexual disorder.

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