REVIEW



Problematic sexual excesses

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Practice points

- Clinical characteristics
 - Frequent or abhorrent sexual behaviors that are dangerous for the patient, family, employer or society.
 - Usually (at least 80%) are older young adults or middle-aged males and are often sent by their wives.
- Etiology
 - A broad range of interacting developmental, social and psychological factors that layer upon each other.
 May also be associated with brain disease.
 - Potential etiology includes developmental trauma, relationship or vocational disappointment, private rejection of monogamy or discovery of pleasures of relationshipless sex.
- Neurobiology
 - Pathologies of the frontal cortex and its connections to limbic structures.
- Assessment
 - Clarify the circumstances that caused the patient to seek assistance and invite the patient's account of their sexual behaviors.
 - Elaborate by reviewing omissions concerning orientation, gender identity, masturbation, types of pornography use, purchasing or selling sex, other sexual partners, safe sex practices and activities that are criminal (e.g., coercion, sex with minors, exhibitionism or voyeurism).
 - Note psychiatric comorbidities, particularly depression, substance abuse or bipolar disorder for subsequent, more detailed historical and symptomatic review.
 - Consider the use of a questionnaire for pre-/post-treatment or research purposes.
- Treatment
 - Treatment is based on the clinician's perception of the sources of the problem, the capacities of the patient and the therapist's preferred style of working (e.g., individual, group or community involvement).
 - Treatment is often long term and multimodal with psychotropic medication.
- Treatment summary/recommendations
 - Clinicians often employ 12-step programs, but should remain wary of any one-size-fits-all approach.

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SUMMARY Known since ancient times, sexual excess has been referred to as 'sexual addiction' for three decades. DSM-5 has proposed a new category of 'hypersexual disorder' to bring together disturbing situations of masturbation, pornography use, strip club attendance, multiple affairs, internet procurement of partners, prostitution use, unprotected sex with multiple partners and other sexually arousing behaviors. The conditions under which patients come for assessment differ between single and married, heterosexual and homosexual, paraphilic and nonparaphilic, and sex criminals and law-abiding patients. Treatment depends on apparent causes, comorbidities and the patient's capacities. While questions have been raised about the validity of hypersexual disorder, the numerous

requests for assistance from patients should remind the field of psychiatry that utility also

An individual's sexuality consists of mental events, arousal experiences and a range of behaviors. Individuals, families and society collude to keep them private. Health professionals' knowledge about sexuality is scattered among numerous specialties. Few providers function as though they have an integrated perspective defined by Levine's first principle of clinical sexuality – all sexual behavior, solitary and partnered, normal and abnormal, legal and illegal, moral and immoral, is created by the interaction of biology, psychology, interpersonal relationships and culture [1]. As the clinical patterns of sexual excess are considered, a number of limitations should be kept in mind:

drives the employment of a diagnosis.

- There are no reliable and rigorously derived prevalence data;
- Frequency of sexual behavior is not alone an indicator of a significant problem;
- The definition of clinical problems vary with historical era, region of the world and within any single culture;
- Tolerance for sexual behaviors is known to vary greatly between heterosexual and homosexual communities;
- Expert opinion, the lowest level on the evidence-based medicine hierarchy, is the basis for many of the unreferenced statements that follow.

Sexual excess is an old problem

In a review of the evolution of the concept of nymphomania over two centuries, Groneman documented what numerous scholars and luminaries, such as Freud and Kinsey, believed about the sexual excesses of both genders [2]. In the 19th century, health professionals used the labels 'moral insanity', 'satyriasis' and 'nymphomania' for their case reports about people who seemed to have lost control over their sexual behaviors. For three decades, 'sexual addiction' has served the same purpose. Carnes suggested the term in 1983 well before the explosive growth of internet technologies [3]. The internet offers possibilities for devotion to sexual pleasures through ready access to pornography and prostitution services, chatting with people who have similar sexual interests and concerns and playing erotic games. These opportunities illustrate the alluring power of sexual stimulation that requires no courtship.

From countertransference to monogamy

Some mental health professionals may find it difficult to remain calm and objective about these patients. This may reflect a discomfort with discussing sexual issues in general, but more often it is this group of patients in particular. Many professionals do not want to be involved with their care. This may be based on private disapproval because some of the behaviors involve partner betrayals that risk negative medical, psychological and familial consequences [4]. The behaviors appear to them to be sordid and abhorrent.

There is also the professional problem regarding the nature of sexual excess. Should these patterns be viewed as a standalone behavioral disorder, a symptom of an underlying psychiatric problem, a choice reflecting personal sensibilities or the medicalization of imprudence [5]? This confusion is reflected in the historic difficulty in finding one name for the numerous ways that sexual expression can seem to be problematically excessive in either sex [6]. Consider this list: Don Juanism, erotic obsession, erotomania, hedonism, hyperphilia, hypersexuality, loss of control of sexual behavior, love addiction, moral insanity, nonparaphilic compulsivity, nymphomania, paraphilia-related disorder, persistent genital arousal disorder, problematic hypersexuality, promiscuity, satyriasis, sexual compulsivity, sexual excess, sexual dependence,

sexual impulsivity and sexual obsession. What these have in common is the connotation of a violation of social, legal or developmental norms.

Heterosexual convention expects adults to manage their sexual behavior within certain limits. These expectations form largely unwritten rules that protect and support the autonomy of the individual and the institution of marriage (preserving the dignity of the partner and shielding children from sexual abuse and family breakup). Rules apply to unmarried individuals as well, but considerably more leeway is given to single men and women than to committed individuals, particularly because of the availability of contraceptives and the clarification of safe sex practices. Individuals either adopt or modify their cultural conventions. Homosexual conventions are more fluid and liberal. Nonetheless, heterosexual, gay, lesbian or transgender couples explicitly or implicitly define the boundaries for masturbation, pornography use, strip club attendance, massage parlors and sexual involvement with other partners. Since such rules may be based on intuitive private processes that are shaped by individual, ethnic, religious, national and subcultural sensibilities, many professionals are wary of any diagnosis that declares the sexual behaviors of others to be pathological, except when it involves a crime [7].

Monogamy, which is not a universally endorsed way of life, is currently an important expectation in western cultures. Monogamy was not always an organizing principle for a man's behavior in the western world. In ancient times, men commonly involved themselves with wives, concubines and prostitutes. This began to change under the influence of Martin Luther in 1639 [8]. Today, public pronouncements about monogamy suggest that it is normal, expected and a shared value system of the majority of citizens of the USA and UK [9]. This is because the arrangement increases the likelihood of maintaining the couple's mental, physical, social and economic health. It tends to preserve the structure of family in order to facilitate children's emotional development. It also tends to maintain the continuity of relationships between the couple and their parents, siblings, extended family and friends. Multiple partners increase the risk of sexually transmitted diseases. Monogamous behavior, therefore, is often equated with health or normality, and nonmonogamy with mental or emotional illness. Freud, respecting the virtues of monogamy, also

pointed out its sexual frustrations and neurotic symptom burden [10]. Countless works of fiction have elaborated on this idea.

Hypersexual disorder

In 2010, a DSM-5 panel proposed the diagnosis 'hypersexual disorder' and invited comments [11]. Many assailed its lack of precision, hidden moral judgments and risk that it would be misused to pathologize people with unconventional values and behaviors [7]. Others saw progress in ending 30 years of unproductive arguments as to whether these patients had an addictive, compulsive or an impulsive disorder [4]. The proposal raised hopes that paraphilic patients could be excluded and that the criteria could be used regardless of patients' orientation.

Hypersexual disorder attempted to codify what has been observed for three decades. Sexual excesses are destructive to somebody the patient, the spouse, lover, family, employer or society [12]. The behaviors may occur at a high frequency or occupy a large amount of time. They can be expensive in economic, psychologic and social terms. They may persist despite negative consequences. The patient may not be able to stop the behavior after stating that goal. Most of the behaviors are secret from partners. Several questionnaires have been developed to quantify the concept of excessive sexual behavior over the years [13,14]. The Hypersexual Behavior Inventory [15], a recently developed measure, most closely reflects the DSM-5-proposed criteria for hypersexual disorder.

Diagnostic criteria

The diagnostic criteria for hypersexual disorder are:

Recurrent and intense sexual fantasies, sexual urges and sexual behavior occur over a period of at least 6 months, in association with four or more of the following five criteria: excessive time consumed by sexual fantasies and urges, and by planning for and engaging in sexual behavior; repetitively engaging in these sexual fantasies, urges and behavior in response to dysphoric mood states (e.g., anxiety, depression, boredom or irritability); repetitively engaging in sexual fantasies, urges and behavior in response to stressful life events; repetitive but unsuccessful efforts to control or significantly reduce these sexual fantasies, urges and behavior;

repetitively engaging in sexual behavior while disregarding the risk for physical or emotional harm to self or others;

- 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.
- The sexual fantasies, urges and behavior are not due to direct physiological effects of exogenous substances (e.g., drugs of abuse or medications) or to manic episodes;
- Age of at least 18 years.

Some of the questions about validity involve how clinicians are to interpret 'intense', 'repetitively' and 'excessively', and how they are expected to know when it is unhealthy to have sex because of some dysphoria or stress [7,16]. Selfreport questionnaires rely on patients to subjectively determine whether their sexual fantasies, urges and behaviors are excessive or in response to dysphoric mood states, stress or substances of abuse. The subjective nature of this assessment may undermine the validity of the symptom criteria.

Utility may be more vital than validity

Belief in the term 'sexual addiction' is firmly rooted in the lay public's mind and has seeming clarity for professionals and institutions that provide treatment for it. The concept is useful - in other words, it has utility [17]. Even those who express concerns about its content validity think that many of these individuals have a problem that is deserving of psychiatric attention. The major concern is the avoidance of inappropriate, ineffective or destructive therapeutic interventions. Disease labels have several uses. They provide the sick role for the patient (i.e., a temporary respite from blame due to having an illness), generate hope for the patient and family that a treatment will help, create work for professionals and stimulate research. There has been an increase in papers on hypersexuality in recent years [18].

Comorbidities

Nonsexual diagnostic issues

Authors agree that the majority of patients have significant psychiatric comorbidities [4,19–22]. The most common comorbidities are past or current substance abuse, a current mood or anxiety disorder, attention deficit disorder with executive dysfunction, strong narcissistic personality traits in mixed personality disorders, developmental disability and a marriage in crisis. Given this range, it is not surprising that case series do not show any consistent findings on the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) [23] and that tests of executive function fail to demonstrate any particular finding [18]. When thinking about comorbidity, selection bias should be considered. The setting - community mental health setting serving the uninsured, a private clinic with patients who prefer not to use their insurance, a university hospital's clinic that takes all who request help or a residential treatment center - may skew the comorbidities somewhat.

Sexual dysfunction diagnostic issues

The sexual functional characteristics of these patients are frequently initially overlooked. The most commonly missed pattern is a situational form of hypoactive sexual desire disorder (i.e., the patient has no desire for his or her partner). The complaint may be arousal problems or the inability to attain orgasm with the partner, but in some situations there has not been sex with the partner for years and a dysfunction symptom is present with everyone else. Questionnaires focus on urges, behaviors and motives for sexual activities rather than desire for a partner, arousal with partners and orgasmic attainment with partners [24].

Assessment

The clinical assessment should begin with attention to the therapeutic alliance. Although there are many ways of accomplishing this, I prefer to ask the patient to tell me about themselves. I often do this by warmly asking, "Who are you?" After 5 min or so of listening to what they consider relevant about their life, I ask them to tell me about the problem, including the circumstances that brought them to me. Depending on how articulate they are, I may simply listen or probe with, "Tell me more." Along the way, I ask specific questions about their gender identity, orientation, mental and behavioral involvement with paraphilias and sexual function with their designated partner and other consorts. All the while, I am experiencing their style [25].

At the initial assessment, it is usually vital to ask about specific sexual behaviors, preferences, locations of activities and fantasies. Do not quickly veer off into the assessment of the mentioned or apparent comorbidities under the assumption that if the comorbidity is properly treated the sexual excess will dissipate. While some of the comorbidities are typically apparent in the first meeting, their assessment can wait until a subsequent meeting – the sexual excess should take precedence. Questionnaires may be helpful in quantifying the degree of the problem but are no substitute for the above. The patient whose score is slightly below the cut-off for a diagnosis may still require intervention. Clinicians should anticipate that some people are offended by an impersonal treatment of a highly private matter.

There is one overarching purpose to the assessment and the subsequent treatment process: to find out what is going on with this patient.

Etiology

Regardless of the setting, when an initial evaluation is complete, clinicians are faced with four etiological questions:

- Is the sexual excess a symptom of an underlying treatable disorder such as hypomania, substance abuse or obsessive-compulsive disorder? When the answer is 'yes', the sexual excess typically continues.
- Is the sexual excess a symptom of an underlying untreatable condition such as mental retardation, antisocial personality disorder, dementia or a devitalized marriage? The psychiatrist's treatment plan must be modified to honor such realities.
- Is this a problem unto itself with no causal relationship to the comorbidities? What then is its source? Is it a personal choice, or a differing sexual value system from the partner, dominant society or the referring physician?
- Are the sexual excesses and the comorbidities the consequences of a developmental process? This implies that the treatment should define and try to ameliorate the effects of such experiences or relationships, even if the patient is initially unaware of the trauma or its consequences.

What is not a sexual excess syndrome?

Most married men are referred for sexual addiction after a partner discovers a sexual behavior that upsets her. Her distress brings the patient for evaluation.

Case 1

While her schizophrenic mother was slowly dying of pancreatic cancer, an exhausted college professor discovered her quiet husband looking at adult heterosexual pornography. Shocked by this discovery, she threatened to divorce him for his infidelity. At her next weekly psychotherapy session, her therapist suggested that her husband was likely a sexual addict who needed help. In fact, she discovered his second episode of masturbating using computer pornography in 2 months. They had had a mutually satisfying sexual relationship for 38 years, which had recently become less frequent because of the mother's physical deterioration. He had no other extradyadic sexual behaviors or interests. After having one session with the wife after her mother's death, her diagnosis of sexual addiction was abandoned and the threat of separation dissipated.

Frightened, enraged and confused partners also send men in for sexual addiction after they discover an extramarital involvement or a series of sexual relationships with others. Sometimes labeled as a chronic adulterer, womanizer, philanderer, slut or whore, these patients are often mislabeled as hypersexual.

Case 2

A 53-year-old restaurateur who periodically engaged in sexual relationships with waitresses during the first 17 years of his 27-year marriage was discovered by his wife to be emailing a former waitress who moved out of town. He and the former employee had never had a physical relationship. The emails had become personal but not sexual. The husband had not been using pornography, strip clubs or online sexual chatting, and so on. The distraught wife brought him a bible and asked him to swear on Jesus' name that he had never been unfaithful. He confessed to his two previous longstanding sexual liaisons. She was horrified and reached out to their three daughters for emotional support when she evicted her husband from their house. The wife's therapist suggested that he was a sexual addict. I suggested to them that they needed assistance understanding the meaning to each of them of the past affairs. Then they could define the conditions under which the marriage could go forward. The wife was relieved that he was not a sex addict, calmed down, permitted him back into the house and told the daughters that they were working on this now private matter.

Discoveries of the partner's secret conventional heterosexual life

A crisis occurs in a relationship when a secret sexual pattern is revealed. The pattern need not be extremely frequent or preoccupying to get labeled as sexual addiction. Both of these disparate circumstances have led some therapists to think of the patients as addicts.

Case 3

A happily married stockbroker in his late 30s and father of three children was discovered by his wife to have purchased 'sensual massages' monthly for years along with his more frequent standard massages. His satisfying twice-weekly marital sexual life was also secretly supplemented by masturbation to pornography several times per week. Perhaps four-times a year, he visited a strip club with customers or male cousins. He considered himself faithful because he never engaged in intercourse. He viewed his sensual massages as a variant of masturbation. His wife used to tell him that he always thought of himself first and always found a way to do what he wanted. Not being a particularly insightful person, in individual psychotherapy, the patient began to understand her viewpoint and was chastened by her profound distress. He began to refer to himself as immature and self-centered and committed himself to growing up. He and his wife began having sex four-times a week. Masturbation ceased and he invested himself in understanding the sources of the waves of distress his wife felt for months after her discovery of his secret life.

Case 4

Case 4 involves an 80-year-old, twice-married, wealthy man who had a 60-year history of prostitute use up to four-times a month. With each of his wives, he quickly lost sexual interest shortly after marriage. Now married for 32 years, he failed to improve in therapy directed at his sexual aversion for his wife. Although he announced that his use of prostitutes was over, he continued to see them. Upset by his parents' disinterest in him in his preteen years, he had vowed to never allow himself to be dependent on a woman again for the rest of his life.

Uncovering secret paraphilic lives

All case series of sexual addicts, whether single or married, contain individuals with paraphilic fantasies and behaviors. The percentages vary between 8 and 33% [26], but more importantly,

they range from the bizarre to the subtle, from the driven to the occasional, and from wellknown forms, such as sadomasochism, to the rarely seen ones, such as necrophilia. Many paraphilics have a high frequency of orgasmic attainment only during periods of emotional decompensations, while others are chronically so [27]. Those with high masturbatory rates, which is a subgroup of hypersexual disorder, are often found to be paraphilic [28]. The criteria for hypersexual disorder do not exclude paraphilia or other well-established psychiatric disorders, such as a developmental disorder with low IQ or dementia. But the paraphilia, which is typically not qualitatively changeable, should receive individual attention even if the individual meets criteria for hypersexual disorder. Paraphilia often causes severe relationship problems for the patient. When physicians inquire about the sexual lives of chronic psychiatric patients, particularly those with impoverished object relationships, they will often discover paraphilic and/or sexual excess patterns because orgasm is a means of self-soothing. The sexual adjustment of the chronically mentally ill, however, remains a understudied topic.

The problem of the alternative concepts of masculinity

Some men of all ages believe in 'adult entertainment', socialize in strip clubs and woo customers by buying them evenings of the same. They love this environment; they think that most men in their line of work also similarly enjoy these nights out. Pornography is part of this formula. Some men consider sex with numerous partners, including prostitutes, to be exactly what 'real men' have been doing from time immemorial [29]. While men in any subculture may prefer monogamy, in some homosexual communities, multiple partners, frequent sex and preoccupation with the next encounter are an integral part of life's pleasures. In the lesbian urban community some women, particularly when unattached, similarly seek sexual intimacies with numerous women. Regardless of orientation, alcohol or drugs are often part of the process.

Case 5

Case 5 involves a nuclear engineer who runs a successful construction business in several states. He and his crew go to strip clubs several nights a week, most weeks. He often sells his services to purchasing agents there, and he has said "I like to drink and I like strip clubs; so do most of the men I know." His episodically manic wife of 30 years is convinced he is a sex addict, a pervert and an alcoholic. He has had three charges of driving under the influence and jail time for it.

It is not uncommon for a clinician to encounter a person who emphasizes that their meeting male or female strangers via the internet or public parks, for example, for sexual activities is a marvelous recreation, a dream come true and a choice they take knowing the disease risks. One patient may scoff at the idea that they have a problem. The next one may be grateful for the concern.

Many cases are well described as sexual addiction

Many patients presenting with the loss of control over their sexual behaviors readily fulfill the proposed criteria for hypersexual disorder. The questions 'what is wrong with them?' and 'what can be done to help them?' are not simple to answer.

Case 6

Now aged 60 years, this former LSD, marijuana and cocaine user in his 20s, and alcoholic in his 30s, was treated for bipolar I disorder in his 50s. He inherited US\$1,000,000, at which point his highly successful career became passé. Unemployed and not certain that he wished to work, he became depressed and unable to attend to the recommendation that he undergo treatment for hepatitis C. He began entertaining himself with pornography and attending strip clubs. He lost interest in his wife sexually because of her complaints about him. When she decided to divorce, he had great sexual desire for her. As she persisted, his spending on commercial sexual activities escalated dramatically. During and after the divorce, he was suicidal, and continued to rely on strip clubs, pornography and an occasional prostitute. He befriended a cocaine-addicted stripper, a grossly inadequate mother, then moved in with her. He felt addicted to her presence and lavishly supported her, including providing money for her cocaine. When he discovered that she stole \$50,000 from him, he was unable to end the relationship. In 8 years, he spent most of his fortune and is now unable to support his college-aged children. The US Internal Revenue Service (IRS) fined him heavily for not filing income taxes.

Neurobiology

One signal of the neuropathology of sexual excess comes from the observation that some dementia patients develop hypersexuality. Most of these cases are thought to result from a frontal lobe disinhibition pattern and are associated with the loss of social concern [30]. Few seem to have an increased sexual drive [31]. Increased sexual behavior in various brain injuries, disease states and medications has long been identified. The most common neurological causes appear to result from diseases in right prefrontal, orbitofrontal and anterior cingulate cortices, the areas that are activated during sexual arousal [32]. But other areas in the brain are occasionally invoked as the source of hypersexuality [33]. Neurological sources of hypersexuality appear to present as impulsive disorders, as do many syndromes among the developmentally disabled [34]. The question arises as to whether the similar brain pathologies will be found among others without obvious cognitive deterioration. One study attempted to answer this question. Diffusion tensor imaging MRI findings of eight sexually compulsive men were compared with eight normal subjects [35]. The compulsive men had ADHD and alcohol dependence, raising questions about the meaning of their findings of lower diffusivity in the superior frontal cortex.

When the concept of sexual addiction was in its ascendancy, proponents assumed that sex was a 'drug' similar to alcohol and stimulated the same brain reward centers. The sexual excess syndromes were surmised to have induced changes in the neurophysiology of the dopaminemediated mesolimbic pathways connecting the ventral tegmental area and nucleus accumbens [36]. This has not yet been confirmed.

Treatment

The treatment of hypersexuality begins with the therapeutic alliance, which is facilitated by the quality of the psychiatrist's listening and questioning. The doctor should determine exactly why the patient is seeking help at this time. The immediate treatment task is an attempt to separate the patient from the sources of sexual excitement. The therapist first tries to have the patient stop using pornography, attending strip clubs, chatting on the internet to procure partners, using prostitutes or going to bath houses. This is often not difficult because they are embarrassed and temporarily chastened by the discovery of their secret life. This alone can reduce the urges and, in combination with seeking help, provides several



months of freedom from sexual preoccupation while the underlying sources of the patient's angst are addressed. Patients are often shocked by the absence of urges. It is a poor prognostic sign when sexual secret behaviors continue.

Location

There are two options for the location of treatment: away from home in a residential treatment center or in the community. The former provides the opportunity to be separated from a disapproving and shocked family, away from work responsibilities and separated from sexual stimulation with friends who may have shared the sexually exciting venues. Residential treatment is often based on an addiction model, has a planned daily schedule, is multimodal, lasts 4-6 weeks and requires aftercare, which may be available at the same location or in the person's community. While some parts of residential care are paid for by insurance, this approach is usually for those who can afford to pay approximately \$500-1000/day. There is a paucity of outcome data to support these expensive treatment approaches.

Treatment in the community often involves individual psychotherapy and pharmacotherapy, participation in 12-step groups or other group therapies, couples therapy and individual treatment for the partner. It has the disadvantage that the community therapist may be more easily taken in by the rationalizations of the patient than a more experienced therapist. Nonetheless, community treatment, particularly in interested and experienced hands, has the potential for chronic care, the employment of multiple interventions and is considerably less expensive. Unlike lay groups, such as Sexaholics Anonymous, which posit a set of rules that all must aspire to follow, the mental health professional is far more likely to doubt that there is one best treatment approach for this range of problems [37].

Pharmacotherapy

Medications are often employed to treat comorbidities. When they are used to diminish sexual thoughts, however, they are typically employed in this order: selective serotonin-reuptake inhibitors, serotonin- and norepinephrine-reuptake inhibitors, gonadotropin-releasing factor inhibitors, progesterone and then naltrexone [38]. While there is considerable experience with such interventions, there are no placebo-controlled studies to guide decision-making [26,39].

Individual psychotherapy

The therapeutic alliance allows the problem to be considered from multiple dimensions over time. Without the patient's perception that the psychiatrist is comfortable with their information and knowledgeable about the patterns, and without willingness to deal with how this problematic state came about, individual therapy is not likely to hold much opportunity for the patient to outgrow their problematic pattern [40]. The preferred ideology of the therapist does not appear to be vital, although the elements of the therapy may differ greatly [41]. The following three patients overcame their difficulties with the assistance of a stable therapeutic alliance.

Case 7

This case involves a 30-year-old attorney who could not overcome his diffidence about asking girls out. After law school, when he separated from his friends, he failed to create a social life. Continuing his heavy dependence on marijuana, he relied more heavily on the internet for pornography each year. As he began to feel like more of a failure, he explored scenes with progressively younger women and teenagers. He overheard a couple having sex in a ground floor apartment and began to audiotape their frequent nocturnal activities. This led to his arrest. A search of his hard drive revealed thousands of pornographic images including many of children. He was imprisoned for 1 year. His probation included group therapies for sex offenders and drug addiction, and monthly individual psychotherapy. This combination enabled him to free himself from his previous problems. During his first intimate 6 months with a woman who is now his fiancé, he was unable to ejaculate. This has now been resolved for over 2 years.

Case 8

This case involves a 47-year-old happily married man who lost his keyman job when he placed a camera under a desk in the hopes of recording images of a woman's covered perineum. Long fascinated by the panties of older women, he was never able to consummate his marriage. He was an 'alpha male' all of his life, and he would never grant any of his many female partners' requests for intercourse. Individual therapy enabled him to uncover the fact that he and his sister were incest victims of their parents and extended family. He reconstituted his career in a different field and ceased pursuing his voyeuristic activities but was unable to overcome his lack of interest in intercourse. He was able to have a few orgasms by direct penile stimulation with his wife's hand, but his preferred activity was holding one another as they fell asleep.

Case 9

This case involves a 51-year-old lawyer, who liked the best of everything. He found that his life changed after being a client in an exclusive foreign house of prostitution. He spent \$2000 in one night surrounded by beautiful women in a luxurious, quiet and discreet setting with fine food and alcohol. The experience led to a new active exploration of similar ones in the various places. After approximately 12 experiences over 2 years and a relative constant preoccupation, his wife commented on his sexual disinterest and new enthusiasm for being away. She pressed him into a confession. He told me, "I'm addicted to this. I love this. I can't do this anymore and expect to be married. My wife is a wonderful person; our family is great."

Explanation for chronicity

Any stimulation that creates a lustful sense of arousal can serve as a defense against dysphoria and a distraction from issues in the patient's life that they are unable master. Identifying what the patient is defending against may be difficult, but it usually begins with the most obvious - unemployment, a disappointing marriage or boredom - but often moves beyond to more subtle matters such as the individual traits, values and developmental experiences that have caused the patient persistent distress. The patients that are most clearly dependent on sexual distractions have much to work through. Developing new coping capacities takes a considerable length of time. The therapy process has to assist changing how he or she approaches inner experiences and nonsexual behaviors. Residential treatment often provides a good beginning. Patients may remain in therapy for several years, slowly benefiting from membership in a group or an alliance with a therapist. They gradually grow in awareness of themselves and others and take on more responsibility for themselves [42]. Few patients declare themselves completely free of all vestiges of maladaptive behaviors.

Research seeking to evaluate the impact of therapy needs to objectify the parameters of improvement prior to undertaking the project. Ideally, this includes clarifying when the post-treatment evaluations are to be done, providing a valid measurement of ego strength and defining the sample in terms of age, orientation, marital status and relevant demographic parameters [43]. Despite 30 years of clinical treatment, such data have yet to be generated. Clinicians should not hold themselves entirely responsible for these outcomes since the patients' character, background, capacities and social circumstances seem to be key variables.

A PubMed search revealed two outcome studies for self-identified problematic internet use. A 6-month follow-up of 68 men and 36 women (89% with at least a college degree) treated with cognitive—behavioral therapy for various internet-induced addictions found that caucasian educated men did best [41]. However, the middle-aged sample contained many individuals whose 'addiction' did not involve sex (shopping, chat room conversations and gambling were common). A controlled study of teenage boys found that cognitive—behavioral therapy improved time management skills, but that both the treated and the untreated groups improved equally in their use of pornography [44].

Conclusion

The sexual excesses, their meanings, underlying causes and therapeutic approaches are quite varied. This variability is a major concern when codifying a new single diagnosis. DSM-5's hypersexual disorder focuses on the dimension patients have in common - high frequency of specific problematic sexual behaviors - and will likely lead to a creation of a cut-off score to separate mild and severe cases [45]. An alternate approach is to consider sexual excess to be a layered symptom complex that should cause the physician to seek its causes. Most cases will involve the evaluative processes of psychiatrists and other mental health professionals, but others are best delineated by neurology. Since etiological and therapeutic research has yet to inform work in this area, patients have to rely upon the clinician's interests, skills and clinical experience in understanding the problem.

Future perspective

Clinicians can be hopeful that the new interest in this area stimulated by the growth of sexual opportunities via the internet will continue to generate new research. As awareness of how many life processes can be negatively influenced by sexual excess grows, greater involvement from psychiatry, psychology and neurology is likely **REVIEW** Levine

to fill in some of the glaring deficiencies in the diagnostic criteria, epidemiology, natural history and therapeutic effectiveness.

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References

Papers of special note have been highlighted as:

- of interest
- of considerable interest
- 1 Levine S. The first principle of clinical sexuality. J. Sex. Med. 4, 853–854 (2007).
- 2 Groneman C. *Nymphomania: A History*. WW Norton, NY, USA (2000).
- 3 Carnes P. Out of the Shadows. Understanding Sexual Addiction. Hazelden, MN, USA (2001).
- Classic book in the field of sex as another form of drug addiction. It is widely read by patients and often recommended to patients and their spouses.
- 4 Levine S. What is sexual addiction? J. Sex Marital Ther. 3 (3), 261–275 (2010).
- Contains an elaborate discussion of the limitations of the metaphors of addiction, compulsion and impulsion traditionally used to describe sexual excess syndrome. It provides a descriptive dynamics analysis of 30 consecutive patients referred for sex addiction demonstrating the diversity of circumstances that others call 'sexual addiction'. It uses a heterosexual sample.
- 5 Dodge BM. Sexual compulsivity among heterosexual college students. *J. Sex Res.* 4(4), 343–350 (2004).
- 6 Turner M. Female sexual compulsivity: a new syndrome. *Psychiatr. Clin. N. Am.* 3(4), 713–727 (2008).
- 7 Moser C. Hypersexual disorder: just more muddled thinking. *Arch. Sex. Behav.* 40, 227–229; author reply 231–232 (2011).
- Moser is a consistent critic of the classification of paraphilia as a mental disorder and similarly fears that the diagnosis of hypersexual disorder will do more harm than good. He is quite concerned about the rights of sexual minorities not to be pathologized.
- 8 Squires S. I Don't: A Contrarian View of Marriage. MacMillan, NY, USA (2008).
- An anthropologist sheds light on the history and function of monogamy. It is vital to develop a historical perspective on current diagnostic issues.

- 9 Barlow A, Duncan S, James G, Park A. Just a piece of paper: Marriage and co-habitation. In: *British Social Attitudes (18th Report)*. Park A, Curtis J, Thompson C, Jarvis C, Bromley C, Stratford N (Eds). Sage, UK, 29–58 (2001).
- Freud S. Civilization and its discontents. In: *The Complete Psychological Works of Sigmund Freud (Volumne XXI)*. Hogarth Press, UK, 64–145 (1930).
- Kafka M. Hypersexual disorder: a proposed diagnosis for DSM-5. *Arch. Sexual Behav.* 39, 377–400 (2010).
- Summarizes the justifications for the creation of the 'hypersexual disorder' diagnosis, which may not actually become an official diagnosis. The reasons for this are not found in the article, however.
- Goodman A. What is in a name? Terminology for designating a syndrome driven sexual behavior. Sex. Addict. Comp. 8, 191–213 (2001).
- Goodman analyzes professional language with erudition. His observations have been much repeated in the literature.
- 13 Kalichman SC, Rompa D. The Sexual Compulsivity Scale: further development and use with HIV-positive persons. J. Pers. Assess. 76(3), 379–395 (2001).
- Kalichman and Rompa's psychometric instrument is now often used by those who feel that a questionnaire objectifies and standardizes the approach to sexual excess.
- Miner MH, Coleman E, Center B, Ross M, Rosser BRS. The Compulsive Sexual Behaviors Inventory: psychometric properties. *Arch. Sexual Behav.* 36, 579–587 (2007).
- The development of this inventory is an attempt to improve upon the Sexual Compulsivity Scale referenced in [13].
 No one questionnaire for any mental circumstance seems to capture the entire phenomena; they are better at describing the surface than the dynamic causes.
- 15 Reid RC, Garos S, Carpenter BN. Reliability, validity, and psychometric development of the hypersexual behavioral inventory in an outpatient sample of men. *Sex. Addict. Comp.* 18, 30–51 (2011).

interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties.

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- This questionnaire has been developed in accordance with the DSM-5-proposed criteria for hypersexual disorder.
- 16 Kafka MK. Response to Moser's (2010) critique of hypersexual disorder for DSM-5. *Arch. Sexual Behav.* 40, 231–232 (2011).
- The politics of the diagnosis debate continues between two articulate professionals who have very different concepts of what constitutes validity.
- 17 Kendell RJ. Distinguishing between the validity and the utility of psychiatric diagnosis. *Am. J. Psychiat.* 160(1), 4–12 (2003).
- Classic contribution that can be helpfully read in relation to all psychiatric nosology. This concept is often overlooked or misunderstood.
- 18 Reid RC, Garos S, Carpenter BN, Coleman E. A surprising finding related to executive control in a patient sample of hypersexual men *J. Sexual Med.* 8, 2227–2236 (2011).
- 19 Raymond NC, Coleman E, Miner MH. Psychiatric comorbidity and compulsive/ impulsive traits in compulsive sexual behavior. *Compr. Psychiatry* 44(5), 370–380 (2003).
- 20 Kafka MP, Hennen J. A DSM-IV axis I comorbidity study of males (n = 120) with paraphilias and paraphilia-related disorders. *Sexual Abuse J. Res. Treat.* 14(4), 349–366 (2002).
- 21 Reid RC, Carpenter, BN, Gilliland R, Karim R. Problems of self-concept in a patient sample of hypersexual men with attentiondeficit disorder. *J. Addict. Med.* 5(2), 134–140 (2011).
- 22 Black DW, Kehrberg LL, Flumerfelt DL, Schosser S. Characteristics of 36 subjects reporting compulsive sexual behavior. *Am. J. Psychiat.* 154(11), 1632–1638 (1997).
- 23 Reid RC. Exploring relationships of psychopathology in hypersexual patients using the MMPI-2. *J. Sex Marital Ther.* 35(4), 294–310 (2009).
- Raises the issue of why men with this syndrome do not appear to have a common mental state.

Problematic sexual excesses **REVIEW**

- 24 Hook JN, Hook JP, Davis DE, Worthington EL, Penberthy JK. Measuring sexual addiction and compulsivity: a critical review of the instruments. *J. Sex Marit. Ther.* 36(3), 227–260 (2010).
- 25 Risen CB. Listening to sexual stories. In: Handbook of Clinical Sexuality for Mental Health Professionals. Levine SB, Risen CB, Althof SE (Eds). Routledge, NY, USA, 3–20 (2010).
- 26 Kaplan MS, Krueger RB. Diagnosis, assessment, and treatment of hypersexuality. J. Sex Res. 47, 181–198 (2010).
- By far the most comprehensive review of multiple aspects of the sexual excesses. An excellent place for those looking for an extensive bibliography. It is written from a purely objective disorder perspective without case histories. It elaborates on the studies that support the subcategories of hypersexual disorder. It is, of necessity, a long article.
- 27 Stoller R. *Perversion: The Erotic Form of Hatred.* Pantheon, NY, USA (1975).
- 28 Langstrom N, Hanson RK. High rates of sexual behavior in the general population: correlates and predictors. *Arch. Sex Behav.* 35(1), 37–52 (2006).
- 29 Kipnis L. *Against Love: A Polemic.* Pantheon, NY, USA (2003).
- 30 Mendez MF, Shapira JS. Internet pornography and frontotemporal dementia. J. Neuropsychiatry Clin. Neurosci. 23, E3 (2011).
- 31 Baird AW. Neurological control of human sexual behavior: insights from brain lesions. J. Neurol. Neurosurg. Psychiat. 78, 1042–1049 (2007).

- Helpful reminder of the biological sources of some cases of sexual dyscontrol. Before there was hypersexual disorder, there was problematic sexual behaviors within medical settings and within the personal spheres of those with brain lesions.
- 32 Redoute JS. Brain processing of visual sexual stimuli in human males. *Hum. Brain Mapp.* 11, 162–177 (2000).
- 33 Mendez MO. Hypersexuality after right pallidotomy for Parkinson's disease. J. Neuropsychiat. Clin. Neurosci. 16, 37–40 (2004).
- 34 Fedoroff J, Richards L. Sexual disorders and intellectual disabilities. In: *Handbook of Clinical Sexuality for Mental Health Professionals.* Levine SB, Risen CB, Altof SE (Eds). Routlege, NY, USA, 451–468 (2010).
- Provides an important reminder that the developmentally disabled have a variety of sexual problems, including hypersexuality, which require medical/social/psychological attention. The authors are particularly skilled in demonstrating how to assist those with significant cognitive limitations.
- 35 Miner MH, Raymond N, Mueller BA, Lloyd M, Lim KO. Preliminary investigation of the impulsive and neuroanatomical characteristics of compulsive sexual behavior. *Psychiatr. Res.* 174, 146–151 (2009).
- 36 Bartels A, Zeki ST. The neural correlates of maternal and romantic love. *Neuroimage* 21(3), 1155–1166 (2004).
- The neural correlates of maternal and romantic love are exactly the same as those described for drug addiction and those proposed for sex addiction.

- 37 Klein M. Sex addiction: a dangerous clinical concept. SIECUS Report 31(5), 8–11 (2003).
- 38 Saleh FM, Berlin FS. Sex hormones, neurotransmitters, and psychopharmacological treatment. J. Child Sex. Abuse 12, 233–253 (2003).
- 39 Krueger RB, Kaplan MS. Behavioral and psychopharmacological treatment of paraphilia and hypersexual disorder. J. Psychiatr. Pract. 8, 21–32 (2002).
- 40 Marcus DI. Men who lose control of their sexual behavior. In: *Handbook of Clinical Sexuality for Mental Health Professionals.* Levine SB, Risen CB, Althof SE (Eds). Routledge, NY, USA (2010).
- 41 Young K. Cognitive behavior therapy with internet addicts: treatment outcomes and implications. *Cyberpsychol. Behav.* 10(5), 671–679 (2007).
- 42 Schwartz M. Developmental psychopathological perspectives on sexually compulsive behavior. *Psychiatr. Clin. N. Am.* 31(4), 567–586 (2008).
- 43 Sandfort TG, de Keizer M. Sexual problems in gay men: an overview of empirical research. Ann. Rev. Sex Res. 12, 93–120 (2001).
- 44 Du Y, Jiang W, Vance A. Longer term effect of randomized, controlled group cognitive behavioural therapy for internet addiction in adolescent students in Shanghai. *Aust. NZ J. Psychiat.* 44(2), 129–134 (2010).
- 45 Walters GD, Knight RA, Långström N. Is hypersexuality dimensional? Evidence for the DSM-5 from general population and clinical samples. *Arch. Sex Behav.* 40(6), 1309–1321 (2011).