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Measuring Sexual Addiction and Compulsivity: A Critical Review of Instruments

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Research has proliferated on sexual addiction in recent years, and this has led to an increase in the instruments created to measure this construct. The authors review 17 instruments that have been created to assess sexual addiction, including self-report rating scales, self-report checklists, and clinician rating scales measuring symptoms of sexual addiction, as well as self-report rating scales measuring consequences associated with sexual addiction. For each instrument, the authors describe its structure, conceptual basis, and samples studied. They also evaluate the evidence for the reliability and validity of each instrument. The instruments vary widely in their psychometric properties. Many have been created recently, and others have only been studied in specific populations. For each group of instruments, the authors make recommendations for researchers and clinicians.

Sexual addiction (Carnes, 1983), *compulsive sexual behavior* (Coleman, 1991), *sexual compulsivity* (Kalichman & Rompa, 1995), and *sexual impulsivity* (Barth & Kinder, 1987) are all terms that describe a psychological disorder that is defined by a person's inability to control his or her sexual behavior.

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There has been some debate about how to label this problem (Bancroft & Vukadinovic, 2004; Gold & Heffner, 1998). The two dominant models for describing this disorder are sexual compulsivity and sexual addiction. Proponents of the sexual compulsivity model (e.g., Coleman, 1990) have argued that uncontrolled sexual behavior is associated with an underlying obsessive-compulsive disorder in which anxiety is relieved by participation in compulsive behaviors that are sexual in nature. Proponents of the sexual addiction model (e.g., Goodman, 2001) point to the similarities between the clinical characteristics of sexual addiction and the DSM-IVR criteria for substance use disorders (Vesga-Lopez, Schmidt, & Blanco, 2007), and argue for the clinical utility of using an addiction model to treat sexual addiction (Schneider & Irons, 2001). None of the above terms is listed in the Diagnostic and Statistical Manual of Disorders, Fourth Edition, Text Revision (DSM-IV-R; American Psychiatric Association, 2000). For ease of reading, in this present article, we refer to this disorder as *sexual addiction*, although we acknowledge the field has not come to a consensus about the best label to use.

Most descriptions of sexual addiction include several components (Vesga-Lopez et al., 2007), which might eventually serve as identifying characteristics in future versions of the Diagnostic and Statistical Manual of Disorders (DSM). First, an individual experiences persistent, intense, sexually arousing fantasies, urges, or behaviors that cause clinically significant distress or impairment in at least one important area of functioning. Second, the symptoms are present for at least 6 months. Third, the condition is not due to another medical condition or better explained by another Axis I or II disorder. It is important to note that no form of sexual behavior in itself constitutes sexual addiction. Whether a pattern of sexual behavior qualifies as sexual addiction is determined not by the type of behavior, its object, its frequency, or its social acceptability, but by the relation between this behavior pattern and an individual's life. The key features that distinguish sexual addiction from other patterns of sexual behavior are the following: (a) the individual is not reliably able to control the sexual behavior and (b) the sexual behavior has significant harmful consequences and continues despite these consequences (Goodman, 1998).

Assessment of sexual addiction, then, should include these features and be able to distinguish sexual addiction from other types of sexual behavior. Instruments created to measure sexual addiction have generally included three types of information: objective sexual addiction symptoms, subjective sexual addiction symptoms, and consequences associated with sexual addiction. *Objective sexual addiction symptoms* refer to observable phenomena. These are usually tangible sexual activities that are often present in sexual addiction (e.g., actual behaviors such as time spent engaging in sexual activity or number of orgasms per week). *Subjective sexual addiction symptoms* refer symptoms or conditions that are perceived by the client (i.e., one's own perspective of his or her problematic sexual thoughts, feelings, behaviors,

and ability to control them). *Consequences associated with sexual addiction* refer to negative outcomes that are theoretically associated with sexual addiction (e.g., relationship, work, health problems).

Interest in studying sexual addiction has increased among researchers and clinicians in the past decade. For example, a literature search on PsychINFO using the terms *sexual addiction*, *compulsive sexual behavior*, *sexual compulsivity*, and *sexual impulsivity* through 1999 revealed 311 articles. This number has increased to 773 as of January 2009, doubling within just 1 decade. Furthermore, the first peer-reviewed journal committed to the study of sexual addiction was started in 1994 (i.e., Sexual Addiction and Compulsivity) and has now recently published its 15th volume. Research has proliferated examining the defining characteristics, the correlates, and the effective treatments of sexual addiction.

The increased professional interest in sexual addiction has led to a corresponding increase in instruments to measure this construct. As of January 2009, we found 17 instruments that were created to measure aspects of sexual addiction. Although there are numerous instruments available to measure this construct, many have serious limitations. Some instruments have been created and tested only on specific samples. Others are relatively new and have little evidence supporting their reliability and validity.

The purpose of this article is to provide a critical review of instruments designed to measure sexual addiction. We have divided the instruments into their four types: self-report rating scales of sexual addiction symptoms, self-report checklists of sexual addiction symptoms, clinician rating scales of sexual addiction symptoms, and self-report measures of the consequences associated with sexual addiction. For each type of assessment, we briefly describe the most significant findings, including (a) conceptual basis and structure (e.g., type of information, number of items, subscales, and response format), (b) types of samples studied, (c) evidence for reliability, and (d) evidence for validity. We summarize psychometric evidence for all instruments in Table 1. On the basis of our review of the instruments, we conclude each section with suggestions for researchers and clinicians.

SELF-REPORT RATINGS SCALES OF SEXUAL ADDICTION SYMPTOMS

Self-report rating scales of sexual addiction symptoms have items that assess one's experience of problematic sexual thoughts, feelings, and behaviors. Most self-report rating scales assess one's subjective experience of symptoms rather than objective symptoms. Respondents rate each item on a Likert-type rating scale. Scores for each item are usually summed to form a total score. Some instruments have two or more subscales assessing different aspects of sexual addiction.

TABLE 1. Sexual Addiction and Compulsivity Measures: Summary Data

Measure	Source and Type of Information	Subscales/ Scoring	Samples Studied	Reliability			Validity			
				Internal Consistency	Temporal Stability	Interrater Reliability	Factor Evidence	Convergent	Discriminant	Criterion Related
Self-Report—Rating Scale of Sexual Addiction Symptoms										
Sexual Addiction Scale of the Disorders Screening Inventory (Carter & Ruiz, 1996; 5 items)	Self-report, subjective	Total score	Psychotherapy, male	$\alpha = .83$ (1 sample)	None reported	Not available	None reported	None reported	Few correlations with other subscales of DSI.	The sexual addiction group scored higher on the Sexual Addiction Scale than did the comparison group.
Compulsive Sexual Behavior Inventory (Coleman et al., 2001; 28 items)	Self-report, subjective	3 scale scores + total score: control, abuse, violence	Psychotherapy, community, college students, male and female, gay and heterosexual	Total score: αs ranged from .67 to .87 Subscale αs ranged from .88 to .96 (6 samples)	$r = .86$ (7–10 days)	Not available	Yes (3 factors); cross-validated	Correlated with the Compulsive Sexual Behavior Consequences Scale, Cognitive and Behavioral Outcomes of Sexual Behavior Scale, Sexual Symptom Assessment Scale, Yale-Brown Obsessive Compulsive Scale-Compulsive Sexual Behavior Internalized homophobia	None reported	Correlated with risky sexual behaviors and number of sex partners The pedophilia group and sexual addiction group scored lower on control than did the comparison group.

Sexual Dependency Inventory-Revised (Delmonico et al., 1998; 179 items)	Self-report, subjective	10 scale scores + 2 composite scores + total score: fantasy, seductive role playing; voyeurism, exhibitionism, paying for sex, trading sex, pain exchange, intrusive sex, exploitive sex, anonymous sex	Psychotherapy, community, sex offenders, mostly heterosexual	Total score: $\alpha = .99$ Subscale: αs ranged from .90 to .99 (1 sample)	Total score: $r = .89$ Subscale: rs ranged from .67 to .98 (1 week)	Not available	None reported	Correlated with: the Sexual Addiction Screening Test	None reported	The sexual addiction group and sex offender group scored higher on the Sexual Dependency Inventory-Revised than did the comparison group.
Perceived Sexual Control Scale (Exner et al., 1992; 20 items)	Self-report, subjective	2 scale scores + total score: control of sex drive, control of risk behavior	Community, college students, mostly gay/bisexual men	Total score αs ranged from .85 to .88 Subscale αs ranged from .81 to .82 (2 samples)	None reported	Not available	Yes (2 factors); not cross-validated	Correlated with the Sexual Compulsivity Scale, sensation seeking, and self-esteem	Unrelated to Big 5 personality variables	Correlated with number of sex partners, number of sexual encounters, and using drugs during sex
Garos Sexual Behavior Index (Garos & Stock, 1998; 70 items)	Self-report, subjective	4 scale scores: discordance, sexual obsession, permissiveness, sexual stimulation	Psychotherapy, community, college students, inmates, sex offenders, mostly heterosexual, men and women	Discordance: $\alpha = .82$ Sexual obsession: $\alpha = .80$ Permissiveness: $\alpha = .70$ Sexual stimulation: $\alpha = .72$ (1 sample)	Discordance: $r = .33$ Sexual obsession: $r = .79$ Permissiveness: $r = .91$ Sexual stimulation: $r = .89$ (18 days)	Not available	Yes (4 factors); not cross-validated	Discordance correlated with the Sexual Addiction Screening Test and depression. Sexual Obsession correlated with the Sexual Addiction Screening Test	None reported	The sexual addiction group scored higher on discordance and sexual obsession than did the comparison group. The sex offender group scored higher on discordance, sexual obsession, and permissiveness than did the non–sex offender group.

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TABLE 1. Sexual Addiction and Compulsivity Measures: Summary Data (*Continued*)

Measure	Source and Type of Information	Subscales/ Scoring	Samples Studied	Reliability			Validity			
				Internal Consistency	Temporal Stability	Interrater Reliability	Factor Evidence	Convergent	Discriminant	Criterion Related
Sexual Compulsivity Scale (Kalichman et al., 1994; 10 items)	Self-report, subjective	Total score	Community, college students, HIV, men and women, heterosexual and gay	αs ranged from .59 to .92 (30 samples)	$r = .95$ (2 weeks) r ranged from .64 to .80 (3 months)	Not available	Yes (2 factors); not cross-validated	Correlated with Perceived Sexual Control Scale, depression, anxiety, sexual sensation seeking, low self-esteem, loneliness, and neuroticism	No correlation with ethnicity, education, income, and age	Correlated with number of sex partners, frequency of masturbation, viewing erotica, using sexual toys, unsafe sex practices, having multiple sexually transmitted infections, drug use before sex, time online for sexual activity, identifying as a barebacker, and less HIV disclosure People in exclusive sexual relationship scored lower on the Sexual Compulsivity Scale than people not in an exclusive relationship.

Sex Addicts Anonymous Questionnaire (Mercer, 1998; 16 items)	Self-report, subjective	Total score	Psychotherapy, sex offenders, college students, mostly male	None reported	None reported	Not available	None reported	None reported	None reported	Sexual addiction group and sex offender group scored higher on the Sex Addicts Anonymous Questionnaire than did the comparison group.
Sexual Symptom Assessment Scale (Raymond et al., 2007; 12 items)	Self-report, objective, subjective	Total score	Psychotherapy, mostly male	$\alpha = .92$ (1 sample)	$r = .94$ (1 week)	Not available	None reported	Correlated with the Compulsive Sexual Behavior Inventory-Control and therapist rating of sexual addiction symptoms	Not correlated with therapist rating of overall pathology	None reported
Self-Report—Checklist of Sexual Addiction Symptoms										
Sexual Addiction Screening Test (Carnes, 1989; 25 items)	Self-report, subjective	Total score	Psychotherapy, community, sex offenders, college students, veterans, physicians, mostly male, mostly heterosexual	αs ranged from .89 to .95 (4 samples)	None reported	Not available	Yes (1 factor); cross-validated	Correlated with the Sexual Dependency Inventory-Revised, Garos Sexual Behavior Index: discordance, sexual obsession, the Internet Sex Screening Test, depression, anxiety, alcohol dependence, drug dependence, boundary violations, and insecure attachment	Not correlated with social desirability or IQ	The sexual addiction group scored higher on the Sexual Addiction Screening Test than did the comparison group.

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TABLE 1. Sexual Addiction and Compulsivity Measures: Summary Data (*Continued*)

Measure	Source and Type of Information	Subscales/ Scoring	Samples Studied	Reliability			Validity			
				Internal Consistency	Temporal Stability	Interrater Reliability	Factor Evidence	Convergent	Discriminant	Criterion Related
Sexual Addiction Screening Test-Women (Carnes & O'Hara, 2000; 25 items)	Self-report, subjective	Total score	College students, female, mostly heterosexual	None reported	None reported	Not available	None reported	None reported	None reported	None reported
Sexual Addiction Screening Test-Gay Men (Carnes & Weiss, 2002; 25 items)	Self-report, subjective	Total score	Community, male, gay	None reported	None reported	Not available	None reported	None reported	None reported	None reported
Internet Sex Screening Test (Delmonico & Miller, 2003; 25 items)	Self-report, subjective	Total score	Community, male and female, heterosexual and gay	Total score: α = .78 Subscale: αs ranged from .51 to .86 (2 samples)	None reported	Not available	Yes (5 factors); not cross-validated	Correlated with the Sexual Addiction Screening Test, boredom proneness, and low social connectedness	None reported	Correlated with number of house spent online and number of hours spent online in sexual activity
Clinician Rating Scale—Sexual Addiction Symptoms										
Sexual Outlet Inventory (Kafka, 1991; 6 items)	Clinician rating, objective	Total sexual output: conventional, unconventional Time per day: conventional, unconventional	Psychotherapy, men	Not available	None reported	None reported	None reported	None reported	None reported	Psychotherapy clients with a sexual addiction reported high total sexual output and sensitive to change with treatment

Diagnostic Interview for Sexual Compulsivity (Morgenstern et al., 2009; 6 sections)	Clinician rating, objective, subjective	Presence or absence of sexual addiction on the basis of diagnostic criteria	Community, gay/bisexual men	Not available	None reported	Domain *r*s ranged from .66 to .99	Yes (1 factor); not cross-validated	Correlated with the Yale-Brown Obsessive Compulsive Scale-Compulsive Sexual Behavior	None reported	None reported
Yale-Brown Obsessive Compulsive Scale-Compulsive Sexual Behavior (Morgenstern et al., 2004; 10 items)	Clinician rating, objective, subjective	Total score	Community, gay/bisexual men	αs ranged from .80 to .91 (2 samples)	None reported	Not available	Yes (1 factor); not cross-validated	Correlated with the Compulsive Sexual Behavior Consequences Scale, Sexual Compulsivity Scale, and Compulsive Sexual Behavior Inventory-Control	None reported	None reported
Self-Report—Consequences Associated With Sexual Addiction										
Cognitive and Behavioral Outcomes of Sexual Behavior Scale (McBride et al., 2007; 36 items)	Self-report, consequences	2 subscale scores + total score: cognitive, behavioral	College students	Cognitive: α = .89 Subscale: αs ranged from .75 to .95 Behavioral: α = .75 (1 sample)	None reported	Not available	Yes (6 factors); Not cross-validated	Correlated with Compulsive Sexual Behavior Inventory	None reported	None reported
Compulsive Sexual Behavior Consequences Scale (Muench et al., 2007; 21 items)	Self-report, consequences	Total score	Community, gay/bisexual men	αs ranged from .86 to .89 (1 sample)	r = .70 (3 months)	Not available	None reported	Correlated with Compulsive Sexual Behavior Inventory-Control and the Yale-Brown Obsessive Compulsive Scale-Compulsive Sexual Behavior	None reported	None reported

There are several advantages tousing self-report rating scales to measure sexual addiction symptoms. Self-report measures are generally quick and easy to use in research and practice. Also, we are often interested in a person's perspective of his or her experiences with sexuality. However, there are also drawbacks to self-report measures. First, sexual addiction is a problem that can be embarrassing and shaming, and thus respondents may give socially desirable ratings. Second, some clients may over-report symptoms because having the label of sexual addiction might absolve them of responsibility for their actions. Third, respondents may misunderstand questions and answer inaccurately. We review eight measures that use rating scales to assess the degree of sexual addiction symptoms.

Sexual Addiction Scale of the Disorders Screening Inventory

Description. The Sexual Addiction Scale (SAS) of the Disorders Screening Inventory (DSI; Carter & Ruiz, 1996) is a five-item scale that yields a total score measuring sexual addiction. *Addiction* is defined as an adaptive relation with a mood-altering substance, behavior, or experience characterized by five factors: compulsion, control loss, consequences, codependent response, and covertness (Carter, 1989). Each item corresponds to one of the aforementioned factors. Sample items include "I use sexual activities or fantasies to escape from worries, trouble or stress" and "My desire for certain sexual activity is causing me problems with a significant relationship, my physical wellness, or my self-esteem." Respondents rate each item on a 5-point Likert-type scale from 0 (*never*) to 4 (*all the time* [*1–2 times per day*]). Total scores range from 0 to 20, with higher scores indicating higher sexual addiction. According to test creators, scores from 0 to 5 indicate a low probability of addiction, scores from 6 to 11 indicate a moderate probability of addiction, and scores from 12 to 20 indicate a high probability of addiction.

Samples studied. The DSI has been evaluated in one sample of male psychotherapy clients.

Reliability. Internal consistency (alpha) for the total score was .83 (Carter & Ruiz, 1996). Temporal stability for the SAS has not been reported.

Validity. There is evidence for discriminant validity of the SAS. There were few significant correlations between the SAS and the other scales of the DSI that measure other psychological disorders (Carter & Ruiz, 1996). Also, there is evidence for the criterion-related validity of the SAS. Psychotherapy clients who self-identified as having a sexual addiction scored higher on the SAS than did psychotherapy clients who did not self-identify as having a sexual addiction (Carter & Ruiz).

Summary. The SAS is a brief, face-valid measure of sexual addiction that is theoretically based. There is initial evidence for the internal consistency of the scale, and it was able to discriminate between participants who self-identified with an sexual addiction from those who did not. However, the SAS

has several psychometric weaknesses. First, the psychometric properties of this scale have been evaluated in only one study of predominantly male psychotherapy clients. It is uncertain how this scale would perform with participants in a different sample (e.g., women, community members). Second, the evidence for the validity of the SAS is sparse. The only real validity criterion has been a self-label of sexual addiction. Other criteria such as trouble with legal authorities, frequency of contact with prostitutes or with illegal or harmful sexual conduct have not been used to adduce evidence for criterion-related validity. Third, the endpoints of the scale may be problematic. The highest rating of sexual addiction symptoms is "all the time (1–2 times per day)." This scale may not be able to discriminate among people with very severe cases of sexual addiction, whose symptoms are present more than once or twice per day.

Compulsive Sexual Behavior Inventory

Description. The Compulsive Sexual Behavior Inventory (CSBI; Coleman, Miner, Ohlerking, & Raymond, 2001) is a 28-item scale that yields a total score and three subscale scores. *Sexual addiction* is defined as a disorder in which the individual experiences intense sexually arousing fantasies, urges, and associated sexual behaviors that are intrusive, driven, and repetitive (Coleman et al.). The three factors of the CSBI are (a) *control*, which measures the ability to control sexual behavior; (b) *abuse*, which measures past history of abuse, and (c) *violence*, which measures the experience of sexual violence. Sample items include "How often have you had trouble controlling your sexual urges?" (control); "Were you sexually abused as a child?" (abuse); and "Have you ever hit, kicked, punched, slapped, thrown, choked, restrained, or beaten any of your sexual partners?" (violence). Respondents rate each item on a 5-point Likert-type scale ranging from 1 (*very frequently*) to 5 (*never*). Total scores range from 28 to 140, with higher scores indicating lower sexual addiction. Three different versions of this scale have been used. In one study, the abuse subscale was dropped because the authors determined that the subscale referred to past behavior and was not as relevant to studying sexual addiction (CSBI-22; Miner, Coleman, Center, Ross, & Rosser, 2007). Also, several studies have only included the control subscale as their measure of sexual addiction (CSBI-control; Muench et al., 2007; O'Dell, Rosser, Miner, & Jacoby, 2008; Raymond, Lloyd, Miner, & Kim, 2007; Wainberg et al., 2006).

Samples studied. The CSBI has been evaluated in psychotherapy clients, community members, and college students. It has been evaluated with heterosexual men, heterosexual women, and gay men.

Reliability. Internal consistency (alpha) was measured in five samples. Alphas for the total score ranged from .67 to .87. Alphas for the subscales

ranged from .88 to .96. The temporal stability coefficient (7–10 days) for the CSBI-22 was .86 (Miner et al., 2007).

Validity. The original scale development study of the CSBI found three factors (Coleman et al. [2001] and this three-factor structure of the CSBI has been replicated on an independent sample (McBride, Reece, & Sanders, 2007). Also, the study that did not use the abuse subscale found that a two-factor structure fit the data well (Miner et al., 2007). The CSBI has evidence of convergent validity and was related to other measures of sexual addiction (Morgenstern et al., 2004; Raymond et al., 2007), consequences associated with sexual addiction (McBride et al.; Muench et al., 2007), and internalized homophobia (Dew & Chaney, 2005). The CSBI also has evidence of criterion-related validity and was related to risky sexual practices (Bockting, Miner, & Rosser, 2007; Dew & Chaney; McBride et al.; Miner et al.; O'Dell et al., 2008) and number of sex partners (Dew & Chaney; Miner et al.). Also, participants who self-identified with pedophilia and sexual addiction scored lower on the CSBI (indicating higher sexual addiction) than did comparison participants (Coleman et al.).

Summary. The CSBI is a brief, face-valid measure of sexual addiction that has been used in several research studies. It has substantial psychometric support. The CSBI is one of the only questionnaires that has subscales associated with past abuse and that connects violence with sex. The authors of the scale argue that past abuse and connecting violence and sex are important markers for people who have sexual addiction. It is debatable, however, whether these subscales constitute the core features of sexual addiction, and some researchers have dropped these subscales and used only the control subscale. For most researchers and clinicians, failure to control sexual behavior is the core of the disorder.

Sexual Dependency Inventory-Revised

Description. The Sexual Dependency Inventory-Revised (SDI-R; Delmonico, Bubenzer, & West, 1998) is a 179-item scale that yields a total score, 2 composite scores, and 10 subscale scores. The instrument measures 10 distinct sexual addiction categories: fantasy, seductive role playing, voyeurism, exhibitionism, paying for sex, trading sex, pain exchange, intrusive sex, exploitive sex, and anonymous sex (Delmonico et al.). Respondents answer two questions for each item. First, respondents report how often they experience each sexual addiction thought, behavior, feeling, or fantasy. Respondents rate each item on a 6-point Likert-type scale ranging from 0 (*never*) to 5 (*very often*). Second, respondents indicate the power of each sexual addiction thought, feeling, behavior, or fantasy. Respondents rate each item on a 6-point Likert-type scale ranging from 0 (*no power*) to 5 (*very high power*). Higher scores indicate higher sexual addiction.

Samples studied. The SDI-R has been evaluated in psychotherapy clients, community members, and sex offenders. It has been evaluated with mostly heterosexual participants.

Reliability. Internal consistency (alpha) for the total score was .99 for both power and frequency (Delmonico et al., 1998). Alphas for the individual subscales ranged from .90 to .99. The temporal stability coefficient (1 week) for the total score SDI-R was .92 for frequency and .89 for power (Delmonico et al.). The temporal stability coefficients for the individual subscales ranged from .67 to .98 (Delmonico et al.).

Validity. The SDI-R has evidence for convergent validity, and it was related to another measure of sexual addiction (Delmonico et al., 1998). The SDI-R also has evidence of criterion-related validity. Participants who self-reported as a sex offender or who self-reported as having problems with sexual addiction scored higher on the SDI-R than did participants from a comparison condition (Delmonico et al.).

Summary. At 179 items, each rated twice, the SDI-R is one of the longer and more in-depth measures of sexual addiction. As such, it may be a useful tool to obtain more detailed information about the nature of one's experiences with sexual addiction. The description of the frequency of each of 10 sets of behaviors is unique and particularly useful. The rating of the power of each temptation is similar to shorter measures of control. This instrument also has shown initial evidence of reliability and validity. However, although the instrument gives a detailed picture of sexual addiction, the SDI-R is lengthy and may be difficult to use in research and clinical settings. Also, the reliability and validity of the SDI-R have not been replicated in diverse settings.

Perceived Sexual Control Scale

Description. The Perceived Sexual Control Scale (PSCS; Exner, Meyer-Bahlburg, & Ehrhardt, 1992) is a 20-item scale that yields a total score as well as two subscale scores. The PSCS measures problems with *sexual self-control*, defined as a pattern of behavior marked by the individual's perception of being unable to control his or her sexual behavior (Exner et al.). The two factors of the PSCS are (a) control of sex drive and (b) control of risk behavior. Sample items include "My sex drive controls my life" (control of sex drive) and "I forget about safe sex when I'm with a new partner" (control of risk behavior). Respondents rate each item on a 5-point Likert-type scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). Higher scores indicate greater perceived control over sexual behavior (i.e., lower sexual addiction).

Samples studied. The PSCS has been evaluated in community members and college students. It has been evaluated with mostly gay men.

Reliability. Internal consistency (alpha) was measured in two samples. Alphas for the total score ranged from .85 to .88, and alphas for the subscales ranged from .81 to .82. Temporal stability for the PSCS has not been reported.

Validity. The original scale development study of the PSCS found two factors (Exner et al., 1992), but this factor structure has not yet been replicated on an independent sample. The PSCS has evidence of convergent validity and was related to another measure of sexual addiction, sexual sensation seeking, and self-esteem (Kalichman et al., 1994). The PSCS has evidence of discriminant validity, and it was unrelated to any of the Big 5 personality variables (Shafer, 2001). The PSCS also has evidence of criterion-related validity, and it was related to number of sex partners, number of sexual encounters, drug use during sex (Exner et al.), and risky sexual behavior (Kalichman et al.).

Summary. The PSCS is a brief, face-valid measure of perceived control over sexual behavior. There is evidence supporting the estimated internal consistency and the validity. The instrument has been studied mainly in populations of gay men. Also, some of the items of the PSCS are double-barreled (e.g., "Sex is important to me, but it doesn't rule my life"; "I've tried to cut down on casual sex, but I just can't do it"), making these items difficult for respondents to interpret.

Garos Sexual Behavior Index

Description. The Garos Sexual Behavior Index (GSBI; Garos & Stock, 1998b) is a 70-item scale that yields four subscale scores that measure constructs associated with disorders of sexual frequency and control (Garos & Stock, 1998a). The measure consists of 35 core items and 35 masking items. The four factors of the GSBI are (a) *discordance*, which measures the extent to which a person feels conflicted about his or her sexual desires, as well as the subsequent shame felt from acting on those desires; (b) *sexual obsession*, which measures the degree of preoccupation a person has with sex and sexual stimuli; (c) *permissiveness*, which measures general values about sexual issues; and (d) *sexual stimulation*, which measures how comfortable a person is with his or her feelings of sexual stimulation and arousal. Sample items include "I feel uncomfortable when a relationship becomes sexual" (discordance); "Regardless of how busy I am, there is always time for sex" (sexual obsession); "Extramarital sex is sometimes justified" (permissiveness); and "I enjoy experiencing my sexual feelings" (sexual stimulation). Respondents rate each item on a 5-point Likert-type scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). Lower subscale scores indicate higher endorsement of discordance, sexual obsession, permissiveness, and sexual stimulation.

Samples studied. The GSBI has been evaluated in psychotherapy clients, community members, college students, inmates, and sex offenders. It has been evaluated in both male and female participants. Samples have been mostly heterosexual.

Reliability. Internal consistency (alpha) for the subscales was .82 for discordance, .72 for sexual obsession, .70 for permissiveness, and .80 for sexual stimulation (Garos & Stock, 1998b) in a mostly heterosexual sample. The temporal stability coefficients (18 days) for the subscales were .33 for discordance, .79 for sexual obsession, .91 for permissiveness, and .89 for sexual stimulation (Garos & Stock).

Validity. The original scale development study of the GSBI found four factors (Garos & Stock, 1998b), but this factor structure has not yet been replicated on an independent sample. The GSBI has some evidence for convergent validity. The discordance and sexual obsession subscales were related to another measure of sexual addiction in both men and women (Garos & Stock, 1998a). The other two subscales showed conflicting results. The permissiveness subscale was related to another measure of sexual addiction in women but not in men, and the sexual stimulation subscale was related to another measure of sexual addiction in men but not in women (Garos & Stock, 1998b). The discordance subscale was also related to depression in both men and women (Garos & Stock, 1998a). The sexual obsession subscale was related to depression in men but not in women, and the other two subscales were not related to depression (Garos & Stock, 1998a). The GSBI also has evidence of criterion-related validity. Participants who self-identified as sex addicts scored higher on the discordance and sexual obsession subscales than did participants who did not self-identify as sex addicts (Garos & Stock, 1998a). Also, sex offenders scored higher on the discordance, sexual obsession, and permissiveness subscales than did those who were not sex offenders (Garos, Bleckley, Beggan, & Frizzell, 2004). Furthermore, in an outcome evaluation of an sexual addiction treatment study, scores on the discordance and sexual obsession subscales were sensitive to change and decreased over time (Klontz, Garos, & Klontz, 2005).

Summary. The GSBI is one of the more lengthy measures of sexual addiction, and it offers more information than most of the other scales reviewed in this article. The downside of this is that it is time consuming. There is limited evidence for its psychometric strength. There also are no norms to unambiguously interpret the meaning of the scores. The GSBI is a broad measure of sexual problems, and it appears from the evidence for validity that the discordance and sexual obsession subscales are most closely aligned with our definition of *sexual addiction*. Although the original scale development study surveyed a large number of individuals from several settings (i.e., psychotherapy, community, college students), there are little data for using this scale for gay men and lesbians.

Sexual Compulsivity Scale

Description. The Sexual Compulsivity Scale (SCS; Kalichman et al., 1994) is a 10-item scale that yields a total score measuring sexual addiction. *Sexual addiction* is defined as an insistent, repetitive, intrusive, and unwanted urge to perform specific acts often in a ritualized or routine fashion (Kalichman & Rompa, 1995). Sample items include "My desires to have sex have disrupted my daily life" and "I have to struggle to control my sexual thoughts and behavior." Respondents rate each item on a 4-point Likert-type scale ranging from 1 (*not at all like me*) to 4 (*very much like me*). Total scores range from 10 to 40, with higher scores indicating higher sexual addiction. A cutoff score of 24 or higher has been used to indicate problems with sexual addiction (Benotsch, Kalichman, & Kelley, 1999; Cooper, Delmonico, & Burg, 2000; Parsons, Bimbi, & Halkitis, 2001), which roughly corresponds with the upper 20% of scores.

Samples studied. The SCS has been evaluated in community members, college students, and people with HIV. It has been evaluated with heterosexual men and women as well as with gay men and lesbians.

Reliability. Internal consistency (alpha) was measured in 30 samples. Alphas ranged from .59 to .92. Only one sample reported an alpha of less than .70. The temporal stability coefficient was .95 for 2 weeks and ranged from .64 to .80 for 3 months.

Validity. Although the original scale development study of the SCS did not comment on factor structure (Kalichman et al., 1994), a recent study that examined the psychometric properties of the scale reported two factors, one that represented a social disruptiveness dimension and one that represented a personal discomfort dimension (Kalichman & Cain, 2004). However, 3 of the 10 items had moderate loadings on both factors. In a subsequent study that attempted to replicate this factor structure on an independent sample (McBride et al., 2008), some items had low factor loadings and four items loaded more strongly on the opposite factor. Thus, the two-factor structure has not been replicated.

The SCS has evidence of convergent validity, and it was related to other measures of sexual addiction (Kalichman et al., 1994), depression (Benotsch, Kalichman, & Pinkerton, 2001; Kalichman & Rompa, 2001; Semple, Zians, Grant, & Patterson, 2006), anxiety (Benotsch et al.; Kalichman & Rompa), sexual sensation seeking (Cooper et al., 2000; Gaither & Sellbom, 2003; Hendershot, Stoner, George, & Norris, 2007; Kalichman & Rompa; Kalichman et al., 1994; Parsons et al., 2001), low self-esteem (Benotsch et al., 1999; Kalichman et al.; Semple et al.), loneliness (Kalichman et al.), and neuroticism (Reid, Carpenter, Spackman, & Willes, 2008). The SCS also has evidence of discriminant validity, and it was unrelated to ethnicity (Benotsch et al., 1999; Benotsch et al., 2001; O'Leary, Fisher, Purcell, Spikes, & Gomez, 2007; Semple et al.), level of education or income (Benotsch et al., 1999; Benotsch

et al., 2001; Semple et al.), and age (Missildine, Feldstein, Punzalan, & Parsons, 2005). The SCS also has evidence of criterion-related validity, and it was related to risky sexual practices (Benotsch et al., 1999; Benotsch et al., 2001; Dodge, Reece, Cole, & Sandfort, 2004; Israel, Romeis, & Spitz, 2005; Kalichman & Rompa; McBride et al., 2008; Parsons et al.; Reece, 2003; Reece & Dodge, 2004; Reece, Plate, & Daughtry, 2001; Semple et al.), number of sex partners (Benotsch et al., 2001; Hendershot et al.; Parsons et al.), frequency of masturbation (Kalichman & Rompa), using sexual toys (Reece & Dodge), viewing erotica (Lawyer, 2008), having multiple sexually transmitted infections (Kalichman & Cain, 2004), using drugs before sex (Benotsch et al., 1999; Kalichman & Cain, 2004; Semple et al.), time spent online for sexual activity (Daneback, Ross, & Mansson, 2006), identifying as a barebacker (Parsons & Bimbi, 2007), and less disclosure of HIV-positive status (Reece). Furthermore, participants who reported being in an exclusive sexual relationship scored lower on the SCS than did participants who did not (Dodge et al., 2004).

Summary. The SCS is a brief, face-valid measure of sexual addiction. Because of strong evidence of construct and criterion-related validity and its convenient length (10 items), the SCS is by far the most widely used measure in research, as indexed by the number of studies that have included this measure. Although this measure has been used primarily with gay and bisexual men, it has begun to be used in other populations as well. A two-factor structure is doubtful. All research studies have used the total score (or mean score) as their measure of sexual addiction.

Sex Addicts Anonymous Questionnaire

Description. The Sex Addicts Anonymous Questionnaire (SAAQ; Mercer, 1998) is a 16-item scale that yields a total score measuring sexual addiction. *Sexual addiction* is defined as the inability to control sexual activities in spite of negative and destructive consequences (Martin, 1989). Sample items include "I keep secrets about my sexual or romantic activities from those important to me" and "I find that romantic or sexual fantasies interfere with my relationships." Respondents rate each item on a 3-point Likert-type scale ranging from 0 (*never*) to 2 (*often*). Total scores range from 0 to 32, with higher scores indicating higher sexual addiction.

Samples studied. The SAAQ has been evaluated in psychotherapy clients, sex offenders, and college students. It has been evaluated with mostly male participants.

Reliability. Internal consistency and temporal stability for the SAAQ have not been reported.

Validity. There is evidence for the criterion-related validity of the SAAQ. Psychotherapy clients who self-identified as having an sexual addiction and

a group of participants in a sex offender recovery program scored higher on the SAAQ than did a comparison group of college students (Mercer, 1998).

Summary. The SAAQ is a brief measure of sexual addiction that is derived from a questionnaire used to help people determine whether the may be appropriate candidates for a Sex Addicts Anonymous 12-step group. Thus, this measure is based on a questionnaire that is widely used. However, the SAAQ has substantial psychometric weaknesses. Norms do not exist.

Sexual Symptom Assessment Scale

Description. The Sexual Symptom Assessment Scale (SSAS; Raymond et al., 2007) is a 12-item scale that yields a total score measuring sexual addiction. *Sexual addiction* is defined as a clinical syndrome involving excessive sexual thoughts, sexual urges, or sexual activities that cause distress or impairment (Raymond et al.). The SSAS is unique in that it measures both subjective and objective symptoms of sexual addiction. Sample items include "If you had urges to engage in problematic sexual behaviors during the past WEEK, on average, how strong were your urges?" and "During the past WEEK, approximately how much total time did you spend engaging in problematic sexual behaviors?" Respondents rate each item on a 5-point Likert-type scale ranging from 0 to 4 (anchors vary depending on the question). Total scores range from 0 to 48, with higher scores indicating higher sexual addiction.

Samples studied. The SSAS has been evaluated in one sample of male psychotherapy clients.

Reliability. Internal consistency (alpha) was .92 in a sample of male psychotherapy clients (Raymond et al., 2007). The temporal stability coefficient (1 week) for the SSAS was .94 (Raymond et al.).

Validity. The SSAS has evidence of convergent validity, and it was related to another measure of sexual addiction and a therapist rating of sexual addiction symptoms (Raymond et al., 2007). The SSAS also has evidence of discriminant validity, and it was unrelated to a therapist rating of general psychopathology (Raymond et al.).

Summary. The SSAS is a brief, face-valid measure of sexual addiction. There is initial evidence for the reliability and validity of this measure, but it is limited to a single study using only men. The SSAS may be able to detect change in sexual addiction symptoms over time because each question asks about symptoms in a specified time period (past week). The SSAS is also the first measure that asks about subjective sexual addiction symptoms (i.e., how the participant feel about his or her sexual thoughts, urges, or behavior) as well as objective sexual addiction symptoms (i.e., actual time spent engaging in sexual thoughts, urges, or behavior). However, it may be problematic to include both subjective and objective ratings of sexual addiction behavior into one total score.

Suggestions for Researchers and Clinicians. For the researcher or clinician who wants a brief rating scale of sexual addiction symptoms, we recommend the SCS and control subscale of the CSBI. Both have strong psychometric support in a wide range of samples. Both are easy and fast to administer and score.

We cautiously recommend the SSAS for additional study. It includes both subjective and objective items and it assesses the level of sexual addiction symptoms within the past week, making it ideal to measure changes in sexual addiction symptoms over time.

The SDI-R and GSBI are more extensive measures of sexual addiction, and they offer additional information not found in the other measures. However, both are probably too long to use in most research or clinical settings. The other sexual addiction rating scales (i.e., SAS, PSCS, SAAQ) are older measures that have not been widely used among researchers and have limited psychometric support.

SELF-REPORT CHECKLISTS OF SEXUAL ADDICTION SYMPTOMS

Similar to the rating scales previously reviewed, self-report checklists of sexual addiction symptoms have several items that assess a person's experience of problematic sexual thoughts, feelings, and behaviors. All the self-report checklists assess subjective sexual addiction symptoms rather than objective sexual addiction symptoms. Participants indicate the presence or absence of each item by checking "yes" or "no." The main advantage to checklists is that they can be completed quickly. If the researcher or clinician wants to assess a wide variety of symptoms, checklists can be time efficient. Also, checklists can be helpful for potential clients to begin exploring sexual addiction. For example, a checklist might be included on a Web site, and the prospective client can then inquire further if desired. However, there are drawbacks to checklists. The main disadvantage of checklist measures of sexual addiction is that they provide less-nuanced information because the participant cannot indicate his or her degree of agreement with specific items; he or she can only answer "yes" or "no." Checklists also may have less statistical variance than rating scales. We review four measures that use a yes–no checklist to assess the presence of various sexual addiction symptoms, all of which are based on Patrick Carnes's (1989) Sexual Addiction Screening Test (SAST).

Sexual Addiction Screening Test

Description. The SAST is a 25-item scale that yields a total score that measures sexual addiction symptoms. *Sexual addiction* is defined as a pathological relationship with a mood-altering experience (Carnes, 1983). Sample items include "Do you often find yourself preoccupied with sexual thoughts?"

and "Has your sexual behavior ever created problems for you or your family?" Respondents answer "yes" or "no" to each item, and the affirmative items are summed to create a total score. Total scores range from 0 to 25, with higher scores indicating higher sexual addiction. Scores of 13 or higher suggest the presence of a sexual addiction (Carnes, 1989). Carnes found that this cutoff score best differentiated between people who self-identified as a sex addict and people who did not.

Samples studied. The SAST has been evaluated in psychotherapy clients, community members, sex offenders, college students, veterans, and physicians. Samples have been mostly male and heterosexual.

Reliability. Internal consistency (alpha) was measured in four samples. Alphas for the total score ranged from .85 to .95. Temporal stability for the SAST has not been reported.

Validity. The original scale development study of the SAST found one factor (Carnes, 1989), and this one-factor structure of the SAST has been replicated in two independent samples (Marshall & Marshall, 1996; Nelson & Oehlert, 2008). The SAST has evidence for convergent validity, and it was related to other measures of sexual addiction (Delmonico et al., 1998; Delmonico & Miller, 2003; Garos & Stock, 1998b), depression, anxiety, alcohol/drug dependence (Nelson & Oehlert), boundary violations (Swiggart, Feurer, Samenow, Delmonico, & Spickard, 2008), and insecure attachment (Zapf, Greiner, & Carroll, 2008). The SAST has evidence for discriminant validity, and it was unrelated to social desirability and intelligence (Nelson & Oehlert). The SAST also has evidence for criterion-related validity, and it was related to visiting a prostitute at a young age (Gordon-Lamoureuz, 2008). Furthermore, participants who identified as having a sexual addiction scored higher on the SAST than did those who did not (Carnes, 1989).

Summary. The SAST is a brief, face-valid measure of sexual addiction that is widely used in clinical practice. The SAST has strong psychometric support. It is intended for use in heterosexual male participants, and thus, it is limited in scope. Modifications to the SAST have been made for women and gay men (see subsequent sections).

Sexual Addiction Screening Test—Women

Description. The Sexual Addiction Screening Test—Women (WSAST; Carnes & O'Hara, 2000) is a 25-item scale that is based on the SAST. It yields a total score that measures sexual addiction symptoms. *Sexual addiction* is defined as a pathological relation with a mood-altering experience (Carnes, 1989). Sample items include "Do you often find yourself preoccupied with sexual thoughts or romantic daydreams?" and "Have you ever participated in sexual activity in exchange for money or gifts?" Respondents answer "yes" or "no" to each item, and the affirmative items are summed to create a total score. Total scores range from 0 to 25, with higher scores indicating higher

sexual addiction. Scores of six or higher suggest the presence of a sexual addiction (Seegers, 2003). No basis was given for this cutoff score.

Samples studied. The WSAST has been evaluated in a sample of mostly heterosexual female college students.

Reliability. Internal consistency and temporal stability for the WSAST have not been reported. However, the WSAST is very similar to the SAST, so some evidence for the reliability can be adduced from the reliability information from that scale.

Validity. There is no evidence for the convergent, discriminant, or criterion-related validity of the WSAST. In one study that compared men taking the SAST with women taking the WSAST, more women than men were identified as sexually addicted (Seegers, 2003), which is a discrepancy from previous research. This is likely due to the lower threshold for labeling a sexual addiction.

Summary. The WSAST is a modification of the SAST for use with women, and at present is psychometrically questionable. More data are needed to provide justification for its usefulness.

Sexual Addiction Screening Test—Gay Men

Description. The Sexual Addiction Screening Test—Gay Men (GSAST; Carnes & Weiss, 2002) is a 25-item scale that is based on the SAST. It yields a total score that measures sexual addiction symptoms. sexual addiction is defined as a pathological relationship with a mood-altering experience (Carnes, 1989). Sample items include "Do you often find yourself preoccupied with sexual thoughts?" and "Has your use of phone sex lines, computer sex lines, etc. exceeded your ability to pay for these services?" Respondents answer "yes" or "no" to each item, and the affirmative items are summed to create a total score. Total scores range from 0 to 25, with higher scores indicating higher sexual addiction. Scores of six or higher suggest the presence of a sexual addiction (Chaney & Dew, 2003). No basis was given for this cutoff score.

Samples studied. The GSAST has been evaluated in a sample of gay male community members.

Reliability. Internal consistency and temporal stability for the GSAST have not been reported. However, the GSAST is similar to the SAST, so some evidence for the reliability can be adduced from the reliability information from that scale.

Validity. There is no evidence for the convergent, discriminant, or criterion-related validity of the GSAST. This measure has been used in one qualitative research study (Chaney & Dew, 2003).

Summary. The GSAST is a modification of the SAST for use with gay men, and at present, it is psychometrically questionable. More data are needed to provide justification for its usefulness.

Internet Sex Screening Test

Description. The Internet Sex Screening Test (ISST; Delmonico & Miller, 2003) is a 25-item scale that yields a total score measuring problematic online sexual behavior, as well as five subscale scores. The five factors of the ISST are (a) online sexual compulsivity, (b) online sexual behavior—social, (c) online sexual behavior—isolated, (d) online sexual spending, and (e) interest in online sexual behavior. Sample items include "Internet sex has sometimes interfered with certain aspects of my life" and "I have participated in sexually related chats." Respondents answer "yes" or "no" to each item, and the affirmative items are summed to create a total score. Total scores range from 0 to 25, with higher scores indicating higher sexual addiction.

Samples studied. The ISST has been evaluated in samples of community members. It has been evaluated in heterosexual men, heterosexual women, and gay men.

Reliability. Internal consistency (alpha) for the total score was .78 in a community sample of mostly gay and bisexual men (Chaney & Blalock, 2006). Alphas for the subscales ranged from .51 to .86 (Delmonico & Miller, 2003). Temporal stability for the ISST has not been reported.

Validity. The original scale development study of the ISST found five factors (Delmonico & Miller, 2003). This factor structure has not been replicated on an independent sample. The ISST has evidence of convergent validity, and it was related to another measure of sexual addiction (Delmonico & Miller), boredom proneness, and low social connectedness (Chaney & Blalock, 2006). The ISST also has evidence of criterion-related validity, and it was related to number of hours spent online engaging in sexual activity (Chaney & Blalock).

Summary. The ISST is the only measure of sexual addiction that is specifically tailored to assess problematic online sexual behavior. It has limited evidence supporting its reliability and validity, and subscale scores may not be reliably interpretable. Other research has used the total score of the ISST in analyses. Although empirical research using the ISST is limited, it has been used in samples of both heterosexual men and women, as well as in gay men.

Suggestions for Researchers and Clinicians. As a general rule, we recommend that researchers use rating scales rather than any of the four checklists reviewed. Rating scales provide more nuanced information than do checklists, and some of the ratings scales are just as brief as the above checklists. We also do not recommend the checklists for clinicians who want to assess change in sexual addiction symptoms over time. The checklists seem best used by clinicians who would like a brief initial assessment to check for problems associated with sexual addiction. For heterosexual men, the SAST has evidence supporting its use. At present, we cannot recommend either the WSAST or GSAST. The ISST is the only measure of sexual addiction that

is focused entirely on Internet sexual addiction. If Internet sexual addiction is the presenting problem, the ISST may be a helpful check for sexual addiction symptoms in that context.

CLINICIAN RATING SCALES OF SEXUAL ADDICTION SYMPTOMS

Clinician rating scales assess symptoms of sexual addiction but are generally administered by a trained professional. Clinician rating scales more often included questions assessing objective symptoms of sexual addiction than did the self-report measures. There are several advantages to clinician rating scales. First, a trained clinician may be able to assess sexual addiction symptoms with less bias. Problems such as social desirability may not be as problematic with clinician-administered measures as with rating scales, although no research has simultaneously evaluated clinician assessment with a self-report scale against objective criteria for sexual addiction (e.g., use of prostitutes, trouble with the law). Second, clinicians are able to use their clinical judgment and can explain items that are confusing to participants. This may lead to more accurate results and less measurement error. Third, using a clinician rating scale can also be a helpful tool for clinicians to establish rapport with their clients. The main drawback of clinician rating scales, compared with self-report measures, is that they are more time and labor intensive in both research and practice. Also, it is possible that people may feel uncomfortable discussing sensitive information about their sexuality with a clinician. Overall, we believe that clinician rating scales are valuable measures, and they provide accurate information about sexual addiction symptoms. However, we acknowledge that using clinician rating scales is not feasible in many research or clinical settings. We subsequently review three clinician rating scales that have been developed to measure sexual addiction.

Sexual Outlet Inventory

Description. The Sexual Outlet Inventory (SOI; Kafka, 1991) is a six-item scale that is administered by a clinician. It documents the incidence and frequency of sexual fantasies, urges, and activities during a designated week. Sexual behaviors are divided into two categories: conventional and unconventional. Conventional sexual behaviors refer to sex within the context of a mutually consenting relationship. Unconventional sexual behaviors refer to paraphilias and nonparaphilic sexual addictions (e.g., compulsive masturbation, ego-dystonic promiscuity, anonymous sex). Clinicians rate total sexual output (i.e., sum of all sexual behaviors leading to orgasm, Kinsey, Pomeroy, & Martin, 1948) of both conventional and unconventional sexual behaviors in the past week. Clinicians also record the average time per day spent in conventional and unconventional fantasies, urges, and activities. Men who

report a weekly total sexual output of seven or more sustained for at least 6 months indicate hypersexual desire (Kafka, 1997).

Samples studied. The SOI has been evaluated in samples of male psychotherapy clients.

Reliability. Internal consistency, temporal stability, and interrater reliability for the SOI have not been reported.

Validity. The SOI had some evidence of criterion-related validity. Psychotherapy clients seeking treatment for paraphilias and nonpariphilic sexual addiction reported high levels of total sexual output (Kafka, 1997; Kafka & Prentky, 1992a). Also, the SOI was sensitive to change in two treatment study of sexual addiction (Kafka, 1994; Kafka & Prentky, 1992b). Furthermore, in these treatment studies, unconventional total sexual output decreased, whereas conventional total sexual output was not affected.

Summary. The SOI is a brief, face-valid measure of sexual addiction. It is an objective measure of actual behaviors rather than subjective sexual addiction symptoms, such as a person's feelings of control over their sexual behavior. The SOI does not have much psychometric support, and it has also only been used in samples of men, so it is uncertain how this measure would perform in a different population.

Diagnostic Interview for Sexual Compulsivity

Description. The Diagnostic Interview for Sexual Compulsivity (DISC; Morgenstern et al., 2009) is a semistructured interview that assesses symptoms of sexual addiction. *Sexual addiction* is defined as a disorder characterized by sexual fantasies and behaviors that increase in frequency and intensity, and interfere with personal, interpersonal, or vocational interests (Morgenstern et al.). The DISC is based on the Structured Clinical Interview for the DSM-IV (SCID) substance abuse and dependence modules. The DISC has six sections that assess (a) the period of time bothered, (b) seven problem behaviors, (c) abuse and dependence criteria, (d) presence of distress or interference, (e) age of onset, and (f) course of the problem. Clinicians rate items assessing abuse and dependence criteria on a 4-point Likert-type scale ranging from 0 (*absent or false*) to 3 (*threshold or true*).

Samples studied. The DISC has been evaluated in a sample of gay and bisexual male community members.

Reliability. Interrater reliability for the DISC domains ranged from .66 to .99 (Morgenstern et al., 2009). Temporal stability for the DISC has not been reported.

Validity. The original scale development study of the DISC found moderate support for a one factor model (Morgenstern et al., 2009), providing some evidence that the adapted dependence items represented a unitary construct. This finding has not been replicated on an independent sample.

The DISC has evidence of convergent validity, and was related to another measure of sexual addiction (Morgenstern et al.).

Summary. The DISC represents the first empirical study evaluating a diagnostic interview for sexual addiction symptoms. This represents an important step in establishing diagnostic criteria for sexual addiction. The DISC had initial evidence for reliability and validity, although this evidence was limited to one sample of gay and bisexual men. It is uncertain how this interview would perform in a different sample. This instrument is unique in that it does not provide a continuous measure of the degree of sexual addiction symptoms; rather, the purpose of the instrument is to establish whether a person meets diagnostic criteria for sexual addiction. These criteria are adapted from the DSM-IV criteria for substance abuse and dependence.

Yale-Brown Obsessive Compulsive Scale—Compulsive Sexual Behavior

Description. The Yale-Brown Obsessive Compulsive Scale— Compulsive Sexual Behavior (YBOCS—CSB; Morgenstern et al., 2004) is a 10-item clinician administered scale that yields a total score measuring sexual addiction. Sexual Addiction is defined as a disorder characterized by sexual fantasies and behaviors that increase in frequency and intensity, and interfere with personal, interpersonal, or vocational interests (Morgenstern et al.). It was adapted from the Yale Brown Obsessive Compulsive Scale. Sample items include "How much of your time is occupied by urges/thoughts related to sex and/or sex-related activities?" and "How much control do you have over urges/thoughts about sex?" Clinicians rate each item on a 5-point Likert-type scale ranging from 0 to 4 (anchors vary depending on the question). Total scores range from 0 to 40, with higher scores indicating higher sexual addiction.

Samples studied. The YBOCS—CSB has been evaluated in samples of gay and bisexual male community members.

Reliability. Internal consistency (alpha) was measured in two samples. Alphas for the total score ranged from .80 to .91. Temporal stability and interrater reliability for the YBOCS—CSB have not been reported.

Validity. The original scale development study of the YBOCS—CSB found one factor (Morgenstern et al., 2004), but this has not been replicated on an independent sample. The YBOCS—CSB has evidence for convergent validity, and was related to other measures of sexual addiction and consequences associated with sexual addiction (Morgenstern et al.; Muench et al., 2007). The YBOCS—CSB was also sensitive to change over time in a treatment study of sexual addiction (Wainberg et al., 2006).

Summary. The YBOCS—CSB is a brief, face-valid measure of sexual addiction. It has limited initial evidence for internal consistency and validity. The measure has only been used in samples of gay and bisexual men, so it is uncertain how this scale would perform in a different type of sample. The YBOCS—CSB asks about subjective sexual addiction symptoms as well as objective sexual addiction symptoms. Similar to the SSAS, it may be problematic to have both subjective and objective ratings of sexual addiction behavior subsumed into one total score.

Suggestions for Researchers and Clinicians. We believe that the clinician rating scales of sexual addiction offer several advantages over self-report measures, and we encourage researchers and clinicians to use these measures when feasible. The SOI is a fast and easy measure of objective sexual addiction symptoms. We believe objective measures of sexual addiction are important, yet probably should be used in conjunction with subjective measures of sexual addiction. One drawback of the SOI is that although it has been used in several studies, there is little reported evidence supporting the reliability and validity of this scale.

The development of the DISC represents a major step in developing a set of diagnostic criteria representing sexual addiction. It may be useful for a researcher or clinician who wishes to evaluate the presence of sexual addiction based on a set of specific criteria. The YBOCS—CSB is similar to the SSAS in that it assesses both objective and subjective symptoms of sexual addiction. All three clinician rating scales of sexual addiction have been evaluated in limited types of samples, so we recommend using caution when administering these scales in different types of samples.

SELF-REPORT INSTRUMENTS MEASURING CONSEQUENCES OF SEXUAL ADDICTION

Consequences associated with sexual addiction refer to negative outcomes that are theoretically associated with sexual addiction. The presence or absence of consequences cannot alone determine whether a person has a sexual addiction. For example, one might experience certain consequences, such as sexually transmitted infections and family problems without having sexual addiction. Also, one might have sexual addiction and not yet be experiencing many consequences from his or her behavior. They do, however, provide interesting information about the negative outcomes associated with sexual addiction. In addition, if one is experiencing many severe negative consequences yet persists in sexual addiction behaviors, this may indicate that the individual is strongly addicted. In clinical settings, assessing the consequences can be therapeutic for clients, helping them become aware of how destructive their behaviors can be. We review two self-report rating

scales that assess the extent to which people have experienced negative consequences that are theoretically associated with sexual addiction.

Cognitive and Behavioral Outcomes of Sexual Behavior Scale

Description. The Cognitive and Behavioral Outcomes of Sexual Behavior Scale (CBOSB; McBride et al., 2007) consists of two scales that measure consequences associated with sexual addiction. The cognitive outcomes scale has 20 items, and the behavioral outcomes scale has 16 items. Both scales yield a total score and six subscale scores. The six factors are (a) legal/occupational, (b) psychological/spiritual, (c) social, (d) physical (pain/injury), (e) physical (disease/pregnancy), and (f) financial. Sample items include "might have placed me at risk for being arrested" and "might have placed me or one of my sex partners at risk for a sexually transmitted infection." The cognitive outcomes scale measures the extent to which participants worried that the things they had done sexually in the past year had resulted in a specific outcome. Respondents rate each item on a 4-point Likert-type scale ranging from 1 (*never*) to 4 (*always*). Total scores range from 20 to 80, with higher scores indicating higher worry about consequences associated with sexual addiction. The behavioral outcomes scale measures whether participants had experienced specific outcomes resulting from their sexual activities over the past year. Respondents answered "yes" or "no" to each item. Total scores range from 0 to 16, with higher scores indicating more consequences associated with sexual addiction.

Samples studied. The CBOSB has been evaluated in a sample of college students.

Reliability. Internal consistency (alpha) for the total scores was .89 for the cognitive outcomes scale and .75 for the behavior outcomes scale (McBride et al., 2007). Alphas for the subscales of the cognitive outcomes scale ranged from .75 to .95 (McBride et al.). Temporal stability for the CBOSB has not been reported.

Validity. The original scale development study of CBOSB found six factors for the cognitive outcomes scale (McBride et al., 2007). This six-factor structure has not been replicated on an independent sample. The CBOSB has evidence for convergent validity. Both the cognitive and behavioral outcomes scales were related to another measure of sexual addiction (McBride et al.).

Summary. The CBOSB has limited initial evidence supporting its reliability and validity. The scale has been used only in one sample of college students, so it is uncertain how this scale would perform in a different type of sample.

Compulsive Sexual Behavior Consequences Scale

Description. The Compulsive Sexual Behavior Consequences Scale (CSBCS; Muench et al., 2007) is a 21-item scale that yields a total score measuring

consequences associated with compulsive sexual behavior. It was adapted from the Inventory of Drug Use Consequences (Tonigan & Miller, 2002). There are two versions of the measure, one that assesses lifetime consequences and one that assesses consequences occurring within the past 90 days. Sample items include "physical health been harmed" and "felt depressed or anxious." Respondents rate each item on a 5-point Likert-type scale ranging from 0 (*never*) to 4 (*always*). Total scores range from 0 to 84, with higher scores indicating more consequences associated with sexual addiction.

Samples studied. The CSBCS has been evaluated in one sample of gay and bisexual male community members.

Reliability. Internal consistency (alpha) for the total score ranged from .86 to .89 (Muench et al., 2007). Temporal stability for the CSBCS has not been reported.

Validity. The CSBCS has evidence for convergent validity and was related to other measures of sexual addiction (Muench et al., 2007). The CSBCS was also sensitive to change in a treatment study of sexual addiction (Muench et al.).

Summary. The CSBCS has limited initial evidence supporting its reliability and validity. The scale has been used only in one sample of gay and bisexual men, so it is uncertain how this scale would perform in a different type of sample.

Suggestions for Researchers and Clinicians. Both of the aforementioned two measures of the consequences associated with sexual addiction show initial evidence of reliability and validity, but have been evaluated in only one type of sample. The CBOSB assesses worry associated with consequences, so a researcher or clinician should use that scale if he or she is interested in evaluating the amount of worry participants have. If a researcher or clinician simply wants to assess the experience of behavioral consequences, we recommend the CSBCS because it allows participants to indicate the degree of consequences experienced rather than simply indicating the presence or absence of consequences.

DISCUSSION

There are several existing measures of sexual addiction, and each has individual strengths and weaknesses. This provides a challenge for researchers and clinicians when deciding which instrument to use. It is apparent from the review that the instruments vary in terms of structure, conceptual basis, samples studied, evidence for reliability, and evidence for validity. On the basis of the present review, we offer several recommendations for researchers and clinicians when choosing a measure of sexual addiction, including (a) psychometric evidence, (b) type and format of scale, and (c) type of information.

Psychometric Evidence

As one can see in the present review, the instruments used to measure sexual addiction vary widely in their evidence for reliability and validity. Several instruments have been created recently and have little evidence supporting their reliability and validity. Also, some instruments have been evaluated only in specific types of samples (e.g., gay men, college students). Researchers and clinicians are encouraged to only use instruments that have evidence for reliability and validity in the specific population of interest. This is especially important in clinical work, where the use of these instruments may guide assessment and treatment decisions. We acknowledge that this is sometimes difficult, especially in a field that is relatively new.

Scale Type and Format

For the researcher and clinician, we believe there are several advantages of clinician rating scales over self-report measures. These include a less biased assessment of sexual addiction symptoms, the ability to use clinical judgment and clarify questions if necessary, the opportunity to build rapport, and the potential to advance the study of sexual addiction through the SCID-like DISC protocol. However, for most purposes we acknowledge that the majority of researchers and clinicians will select self-report measures. They are simply easier and less expensive to administer and score.

For researchers, we recommend using rating scales over checklists, because they allow participants to indicate the degree to which they are experiencing symptoms of sexual addiction, rather than forcing participants to say "yes" or "no". For clinicians, we still recommend using rating scales, although we acknowledge that if the purpose of the assessment is to simply check for the existence of problematic sexual thoughts, feelings, or behaviors, the self-report checklists are probably adequate.

Type of Information

There were three types of information gathered in the instruments in the review: objective sexual addiction symptoms, subjective sexual addiction symptoms, and consequences associated with sexual addiction. Most of the instruments in the present review assessed subjective sexual addiction symptoms. We believe that it is important to assess subjective sexual addiction symptoms because these most closely align with our definition of sexual addiction (i.e., the individual experiences persistent, intense, sexually arousing fantasies, urges, or behaviors that (a) are not reliably able to be controlled and (b) cause clinically significant distress or impairment). It is most important to understand the individual's perception of his or her sexual behavior. However, we believe that it is important to supplement information about subjective sexual addiction symptoms with measures of objective sexual addiction symptoms. Measures of objective sexual addiction symptoms allow

researchers and clinicians to obtain an independent and perhaps more impartial view of one's sexual behaviors. This is important because perceptions of sexual addiction do not always align with actual behaviors. Some recent measures include both subjective and objective sexual addiction questions. We are encouraged by the incorporation of both types of information, but offer caution when interpreting a total score that includes both subjective and objective symptoms of sexual addiction. Measures of the consequences associated with sexual addiction can qualify the severity of the problem if objective and subjective symptoms persist in the face of serious consequences.

Conclusion

Sexual addiction is beginning to be recognized as a growing problem. Research on issues related to sexual addiction has proliferated in recent years. This increase in research has been accompanied by an increase in instruments used to measure sexual addiction. Although several of these instruments are promising and show initial psychometric evidence, the field is hampered by weak theory that identifies precisely what sexual addiction is, what its worst symptoms and consequences are, and how to make accurate diagnoses and prognoses. Despite the conceptual flaws, several instruments are sufficient to advance the science and clinical treatment of sexual addiction. The next wave of progress will likely be ushered in with theoretical and conceptual formation of consensus among researchers and clinicians, which can inform the refinement of existing measures and development of new measures.

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*Indicates instrument used in present review.