IMPULSE-CONTROL DISORDERS MEASURES

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Part 1: Overview

INTRODUCTION

Major Domains

This chapter covers tests and instruments that are relevant to the DSM-IV category of impulse-control disorders (American Psychiatric Association 1994), which is composed of the following diagnoses: intermittent explosive disorder, trichotillomania, pathological gambling, kleptomania, pyromania, and impulse-control disorder not otherwise specified. At present there are no published tests specifically designed to measure intermittent explosive disorder and pyromania. Included in this chapter are three measures of pathological gambling (the South Oaks Gambling Screen [SOGS], the Pathological Gambling Modification of the Yale-Brown Obsessive Compulsive Scale [PG-YBOCS], and the Gambling Symptom Assessment Scale [G-SAS]), two measures of trichotillomania (the Massachusetts General Hospital [MGH] Hairpulling Scale and the Psychiatric Institute Trichotillomania Scale [PITS]), and one measure of kleptomania (the Kleptomania Symptom Assessment Scale [K-SAS]).

The remaining measure in this chapter assesses the relevant dimension of impulsivity. *Impulsivity* is generally defined as acting without thinking or as behaving recklessly without regard to consequences. Impulsivity as a dimension is measured by the Barratt Impulsiveness Scale, Version 11 (BIS-11). High trait levels of impulsivity may dispose people to behaviors associated with specific impulse-control disorders, such as pathological gambling, intermittent explosive disorder, or impulse-control disorder not otherwise specified. For example, high scores on the Motor Impulsiveness factor of the BIS-11 have been associated with a greater number of impulsive acts in prison inmates.

Organization

The measures included in this chapter are listed in Table 29–1. Because *impulsiveness* is a general concept that cuts across these disorders, the first measure presented is the BIS-11. We then describe six scales that can be used to assess specific DSM diagnoses, three for pathological gambling, two for trichotillomania, and one for kleptomania.

Relevant Measures Included Elsewhere in the Handbook

New to this edition of the handbook, Chapter 31, "Aggression Measures," contains some scales for hostility and aggression that were found in the previous edition of this chapter. These measures include the Overt Aggression Scale—Modified (OAS-M), the State-Trait Anger Expression Inventory (STAXI), and the Aggression Questionnaire (AQ), a revision of the Buss-Durkee Hostility Inventory (BDHI).

USING MEASURES IN THIS DOMAIN

Goals of Assessment

The main goals of assessment within this domain are measuring current, recent, and remote episodes of impulsivity; determining the severity of current stealing, hair pulling, or gambling; and measuring change over time. Assessment is intended to aid in determining the patient's propensity toward impulsivity as a personality trait and thus whether a patient meets the criteria for a particular impulse-control disorder. Such information can be of use in clinical evaluation, treatment planning, and evaluation of response to treatment. All of the measures are appropriate for use in research as well.

Implementation Issues

Five of the seven measures in this chapter are self-report questionnaires, although one (the SOGS) can also be administered as a semistructured interview. One measure (the PITS) is a semistructured interview, and one measure (the PG-YBOCS) is a clinician-administered scale.

Measures also have varying time frames; they can assess state or trait across the past week (e.g., the K-SAS, G-SAS, PG-YBOCS, MGH Hairpulling Scale, and PITS) or trait across lifetime (e.g., the SOGS). The BIS-11 does not specify a time frame.

Many of the measures included in this chapter have limitations in common:

- All of the measures assess traits that are generally considered socially undesirable and are thus sensitive to social desirability biases, because subjects may be tempted to underreport undesirable traits.

- Most of the instruments are self-report measures, which rely heavily on questions that ask subjects to make generalizations about relevant attitudes or behavioral patterns. According to a fairly large body of literature, highly impulsive and aggressive people have difficulties conceptualizing their own personal traits and, consequently, demonstrate poor insight into their

TABLE 29–1.   Impulse-control disorders measures

Name of measure	Disorder or construct assessed	Format
Barratt Impulsiveness Scale, Version 11 (BIS-11)◎	Impulsivity	Self-administered questionnaire; 30 items
South Oaks Gambling Screen (SOGS)◎	Pathological gambling	Interview or self-report (screening measure); 20 items
Pathological Gambling Modification of the Yale-Brown Obsessive Compulsive Scale (PG-YBOCS)◎	Pathological gambling	Clinician-administered questionnaire (outcome measure); 10 items
Gambling Symptom Assessment Scale (G-SAS)◎	Pathological gambling	Self-rated scale (outcome measure); 12 items
Massachusetts General Hospital (MGH) Hairpulling Scale◎	Trichotillomania	Self-report questionnaire; 7 items
Psychiatric Institute Trichotillomania Scale (PITS)◎	Trichotillomania	Semistructured interview; 6 items
Kleptomania Symptom Assessment Scale (K-SAS)◎	Kleptomania	Self-rated scale; 11 items

own behavior. Thus, these self-report measures may be confounded by subjects' poor insight into their own attitudes and behaviors, by desires to portray themselves favorably or to exaggerate their impairment and distress in an attempt to affect treatment, and by misunderstanding of the questions or instructions.

- Most self-report scales are aimed at subjects of normal intellect. Thus, many scales may not be appropriate for intellectually impaired subjects for whom impulsivity may be a particularly important clinical issue. Although none of the scales in this chapter are specifically designed for nonverbal or intellectually impaired subjects, those that focus primarily on assessment of concrete behavior, such as the PITS and the MGH Hairpulling Scale, may have potential clinical utility with this population.

- Of particular concern, many of the dimensional instruments appear to become less sensitive at more extreme levels, for several reasons. The oldest and most widely used measure in this domain, the BIS-11, was developed for research purposes and was, in large part, validated on university students, who differ considerably in age, level of education, and socioeconomic status from many clinical populations. Thus, this instrument does not always generalize well to clinical samples.

- Few of the scales focus on concrete behavioral manifestations of impulsive traits. Such questions are of most interest to clinicians who work with these populations and are also likely to best identify high levels of impulsive behavior. For example, many subjects may feel like stealing

something, but the frequency with which they act on this impulse determines their true levels of impulsivity.

Therefore, additional assessment of concrete impulsive behaviors would still be needed for a complete evaluation. The scales should thus be used only with great caution for predicting future impulsive behavior and only in combination with other sources of information.

Issues in Interpreting Psychometric Data

Limitations in the psychometric properties of most of these instruments hamper the interpretation of individual test scores. Few of the scales in this domain have standardized norms or cutoff scores. The SOGS is the only diagnostic measure for which a cutoff score has been determined. Similarly, most of the scales were validated on samples of limited size. Hence, it is difficult to interpret the clinical significance of individual scores.

The six scales that assess diagnostic categories are, by definition, more closely geared toward clinical phenomena than the BIS-11. They are more oriented toward assessing specific behavioral symptoms (e.g., time spent pulling hair in the past week) and   thus maintain sensitivity at high levels of clinical severity. Because both of the trichotillomania scales and the kleptomania scale are fairly new and are in the preliminary stages of validation, no standardized norms or cutoff scores are available for these scales.

Other than the SOGS, which functions as the gold standard for its domain, there is no gold standard for de-

termining the validity of any of these scales. For example, for the trichotillomania scales covered in this chapter, each scale uses its correlation with the other as the sole evidence of validity.

GUIDE TO THE SELECTION OF MEASURES

Measures Omitted From This Chapter

Instruments were selected for this chapter on the basis of their proven psychometric properties, wide use in the field, potential clinical utility, or evident promise as up-and-coming measures. In this edition, several other instruments that assess relevant impulsive behavior could not be included in this chapter because of space limitations:

- Two additional trichotillomania instruments may also be useful: the National Institute of Mental Health Trichotillomania Scale (Swedo et al. 1989) and an adaptation of the Yale-Brown Obsessive Compulsive Scale (Y-BOCS) to measure trichotillomania symptoms (Stanley et al. 1993).

- The Y-BOCS has been adapted to measure compulsive buying (Monahan et al. 1996).

- Keuthen and colleagues (2001a, 2001b) developed two scales to assess skin picking (to be considered for inclusion as an impulse-control disorder in DSM-V): 1) the Skin Picking Scale (SPS) and 2) the Skin Picking Impact Scale (SPIS). The SPS is a 6-item paper-and-pencil measure for the assessment of skin picking, modeled after the Y-BOCS. It is a valid and reliable self-report scale for the assessment of severity in medical and psychiatric patients who endorse skin picking (Keuthen et al. 2001b). The SPIS is a 10-item self-report instrument with good internal consistency, developed to assess the psychosocial consequences of repetitive skin picking (Keuthen et al. 2001a). Sensitivity and specificity analyses indicate that a scale cutoff score of 7 on the SPIS optimally discriminates individuals with self-injurious skin picking from those with non-self-injurious skin picking (Keuthen et al. 2001a).

The Anger, Irritability, and Assault Questionnaire (AIAQ), which assesses impulsive aggression, was included in the previous edition of this chapter but was omitted because it is not widely used or researched.

Considerations for Clinical Utility

All the instruments presented here may be of some use in clinical settings. For example, they can help provide a sys-

tematic assessment of baseline symptomatology and of change across treatment. In group settings, such as clinics, hospitals, and even large practices, these measures can be used to assess the impact of specific clinical factors (impulsivity) on a range of treatment variables, including treatment success, treatment compliance, rehospitalization, and therapeutic alliance. None of these instruments, however, should substitute for a thorough clinical evaluation, and most should be administered in conjunction with other measures. When possible, clinicians should use clinician-administered measures along with self-report measures. All the instruments in this chapter are especially appropriate for research purposes, for which sensitivity to variation in group means is most important.

For the purpose of measuring impulsivity as a state or trait that might cut across the diagnostic categories covered in this chapter and the entire spectrum of disorders with associated impulsive behavior (e.g., bipolar disorder, conduct disorder, borderline personality disorder, antisocial personality disorder, eating disorders, paraphilias, substance use disorders), the only scale that might be applicable is the BIS-11. Although supporting data are currently lacking, the BIS-11 also may be useful in measuring change in an individual's impulsivity over time in response to treatment. The lack of norms and standardized scores limits BIS-11's utility as a clinical assessment tool, but the scale has been shown to discriminate between impulsive and nonimpulsive groups.

Pathological Gambling

The most established measure of pathological gambling is the SOGS, which assesses recurrent and maladaptive gambling behavior that disrupts personal, family, and vocational pursuits. However, the SOGS has some limitations in that it does not correspond exactly with the DSM-IV diagnosis of pathological gambling or include frequency of gambling behaviors. While the SOGS is a self-report screening measure for pathological gambling, the PG-YBOCS is a clinician-rated outcome measure of pathological gambling. Although the PG-YBOCS is relatively new, it is one of the most widely used clinician-rated measures of pathological gambling. It was designed to measure the severity and change in severity of pathological-gambling symptoms. The G-SAS, a self-rated outcome measure, is an alternative pathological-gambling measure that can be used in clinical studies when direct contact with a clinician is not pragmatic. The G-SAS is designed to assess the change of gambling symptoms during treatment.

Trichotillomania

Although the two trichotillomania scales have limited validity and reliability data, they appear to be useful in clar-

ifying the breadth and severity of clinical features. The choice between these scales depends primarily on the intended mode of administration; the PITS is clinician administered, whereas the MGH Hairpulling Scale is a self-report measure.

Kleptomania

Although the K-SAS is a relatively new scale, its basic psychometric properties have been examined (Grant 2005; Grant and Kim 2002). The K-SAS is designed to assess the change of kleptomania symptoms during treatment and is a modified version of the G-SAS, which assesses change in urges, thoughts, and behavior associated with pathological gambling (Kim and Grant 2001a, 2001b).

CURRENT STATUS AND FUTURE RESEARCH NEEDS FOR ASSESSMENT

The instruments that assess impulse-control disorders and related dimensions are for the most part in the preliminary stages of development. In general, more scales and increased psychometric data derived from larger and more varied samples are needed. More diagnostic instruments are needed for all the impulse-control disorders, especially for pyromania and kleptomania. Both questionnaires and semistructured interviews would be useful; in both formats, items should assess concrete behavior in greater detail than do current instruments to improve sensitivity at high levels of impulsivity.

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Part 2: Measures

BARRATT IMPULSIVENESS SCALE, VERSION 11 (BIS-11)

J.H. Patton, M.S. Stanford, and E.S. Barratt

Goals

The BIS-11 (Patton et al. 1995) and its predecessors were developed to assess impulsivity. Impulsivity is conceptualized as related to the control of thoughts and behavior and is broadly defined as acting without thinking. The BIS-11 provides three subdimensional scores of impulsivity: Motor Impulsiveness, Non-planning Impulsiveness, and Attentional Impulsiveness. The three scores on these subtests combine to provide a Total Impulsivity score.

This and previous versions of the BIS were designed primarily as research instruments to aid in the measurement of impulsivity in psychiatrically healthy individuals and to explore the role of impulsivity in psychopathology.

Description

The BIS-11 is a self-administered questionnaire with 30 items scored on a 4-point scale ranging from 1 (rarely/never) to 4 (almost always/always). Sample items are

provided in Example 29–1. Possible scores range from 30 to 120. There are no standardized norms for the BIS-11, but the total score averaged 63.8 ± 10.2 in a sample of 412 undergraduates, 69.3 ± 10.3 in a sample of 164 psychiatric inpatients with substance abuse problems, 71.4 ± 12.6 in 84 general psychiatric inpatients, and 76.3 ± 11.9 in 73 male prison inmates (Patton et al. 1995). Barratt et al. (2005) suggested that a total score of ≥ 75 could indicate an impulse-control disorder, whereas a total score in the range of 70–75 could indicate pathological impulsivity.

Practical Issues

Administration time for the BIS-11 is not specified but is estimated to be 10–15 minutes. The test requires a fifth-grade reading level and is intended for individuals age 13 years and older. The test is printed in full in the article by Patton et al. (1995). Additional information about the measure can be requested from:

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>   Biomedical Studies
> Department of Psychology and Neuroscience
> One Bear Place, Box 97334
> Baylor University
> Waco, Texas 76798-7334
> Voice: 254-710-2961
> E-mail: Jim_Patton@baylor.edu

The BIS-11 is included on the CD-ROM that accompanies this handbook.

Psychometric Properties

Reliability

There is good evidence of internal consistency. The BIS-11 was derived from the 34-item BIS-10 on the basis of high item-total correlations (the correlation of each item with the total test score) and the ability of items to distinguish between subjects in the top and bottom quartile of 412 undergraduate students. Four items were removed for not meeting these criteria. Cronbach α for the 30-item BIS-11 in a large sample of undergraduates and clinical and prison populations ranged from 0.79 to 0.83.

EXAMPLE 29–1.   **Sample items from the Barratt Impulsiveness Scale, Version 11**

> 5.   I squirm at plays or lectures.
> 11.   I don't "pay attention."

Validity

Moderate correlations have been found between the BIS-11 and other measures of impulsivity-related traits. In particular, the BIS-11 is correlated with several measures of hostility and anger. In a sample of 214 university students, the BIS-11 correlated with the BDHI Total Hostility score and with six of its subscales ($r = 0.17$–0.38), and with the number of aggressive incidents in the past month ($r = 0.25$). The BIS-11 correlated with the Anger Out Scale of the STAXI ($r = 0.51$). The Anger Out Scale measures the tendency to express anger toward people and objects in the environment. With regard to related personality traits, the BIS-10 (which has a correlation of 0.98 with the BIS-11) correlated with the Eysenck Personality Questionnaire (EPQ) Psychoticism scale (Eysenck and Eysenck 1975) ($r = 0.66$), but not with the Extroversion and Neuroticism scales. The BIS-10 also correlated with Cluster A, B, and C Personality Disorder scores on the Personality Diagnostic Questionnaire—Revised (PDQ-R) ($r = 0.31$–0.47). Where the BIS-11 is correlated with anger/hostility, aggression, and other personality measures, the primary reason is related to an overlap of items. For example, an item like "I slam doors" could be related to either anger/aggression or to impulsivity.

The BIS-11 has also been shown to distinguish impulsive aggressive from nonaggressive college students, noninmate control subjects from prisoners, male college students and psychiatric patients from prisoners, and female college students from psychiatric patients. In selected studies, the BIS-11 did not distinguish impulsively from nonimpulsively aggressive inmates, or male college students from psychiatric patients.

In a study of college students, the BIS-11 and anger/hostility were both significantly related to impulsive aggression but not to premeditated aggression (Barratt et al. 1999), which is in line with Barratt's theory about the bases of impulsive aggression. Barratt considers impulsivity as a personality trait that is distinct from personality disorders (Barratt et al. 2005). The relationship between impulsivity and behaviors characterizing personality disorders is described within a three-stage model. In this model, impulsivity is defined as part of a system for controlling behaviors, which interacts with drives or impulses to in part control these behaviors (Barratt et al. 2005). In other words, the mechanisms involving drives (e.g., anger) and control rely on interacting but largely independent systems, in which the control system normally restrains a drive. However, when either the drive is too strong or the control system is too weak, impulsive acts occur.

Some studies suggest a relationship between impulsivity and reduced cognitive function. Barratt is particu-

larly interested in this relationship, as reflected in his definition of *impulsivity* as acting without thinking. In a combined sample of prison inmates and noninmate control subjects, the BIS-11 was inversely related to several cognitive measures (e.g., the Wechsler Adult Intelligence Scale [WAIS; Wechsler 1955], the Wechsler Memory Scale—Revised [WMS-R; Wechsler 1987], and the Gray Oral Reading Test [GORT; Gray 1963]) and to psychophysiological measures (e.g., evoked potentials), supporting the notion that impulsivity is related to reduced cognitive efficiency ($r = –0.52$ to $–0.21$). In other words, subjects with elevated levels of impulsivity also demonstrate decreased performance on, and lowered electrophysiological responsivity to, various cognitive tasks.

Barratt was also interested in identifying the components of impulsivity so that impulsivity can be assessed with greater precision. A factor analysis of the BIS-10 and BIS-11 produced three higher-order factors (Motor Impulsiveness, Non-planning Impulsiveness, and Attentional Impulsiveness). In a study of the BIS-10 in 72 male inmates, the Motor Impulsiveness factor, but not the other two factors, correlated with the total number of impulse-control-related behaviors and differentiated inmates with three or more impulse-control–related behaviors from those with two or fewer. The impulse-control–related behaviors that were measured were alcohol abuse, sedative dependence, other drug abuse, repeated aggression, and impulsive fire setting. Although these behaviors do not correspond exactly with the DSM-IV criteria for selected impulse-control disorders, there is some overlap (e.g., fire setting). These results also show a relationship between the trait measure of impulsivity and the presence of impulse-control disorders.

Clinical Utility

The BIS-11 is perhaps the most widely known measure of impulsivity and is easily administered and widely used. It is comparable to self-report measures of similar domains (e.g., measures of impulsive aggression) in its ability to discriminate between impulsive and nonimpulsive groups and in its evidence of various forms of validity. There are no formal norms, however, and no standardization of scores, which limit its utility as a clinical assessment tool.

The BIS-11 is subfactored into Motor Impulsiveness, Non-planning Impulsiveness, and Attentional Impulsiveness, and the test items seem relevant to these three domains (e.g., item 17, "I act on impulse"; item 1, "I plan tasks carefully"; and item 9, "I concentrate easily"; respectively). The factors also make intuitive sense and may add to a fuller assessment of impulsive behavior. Nonetheless, factor loadings have not been replicated in all countries. In general, because most studies provide validity data for the total score rather than for the factor scores, the total score is best suited to provide a general measure of impulsivity.

However, recent research has confirmed that the three subtests are related to impulsivity as measured by the Dickman and Eysenck scales (Miller et al. 2004). Also, the three subtests correlated with specific performance tests (Gorlyn et al. 2005). Further, neurobiological measures of timing and rhythm were related to the BIS-11 total score and to the Non-planning Impulsiveness subtest (Manuck et al. 2003). These studies corroborate suggestions that the subtests measure different concepts of impulsivity.

The scale items seem to be geared to a nonclinical middle-class population and have less relevance to severely impulsive populations and those of low socioeconomic status. For example, it is doubtful that most populations of low socioeconomic status frequent plays or lectures (items 5 and 28). Most questions assess general characteristics and depend on subjects' ability to accurately form abstract assessments of their own behavior (e.g., item 12, "I am a careful thinker"; and item 8, "I am self-controlled"). However, as discussed earlier, research indicates that such high-level cognitive abilities may be compromised in highly impulsive subjects. In addition, few questions on the BIS-11 tap severe or concrete manifestations of impulsivity (e.g., "I find it impossible to restrain myself from drinking alcohol"), which would be expected to differentiate highly impulsive from less impulsive groups with greater sensitivity than the more general questions included on the BIS-11. Thus, the BIS-11 may have reduced sensitivity at extreme levels of impulsivity. For example, in the initial publication of the BIS-11, mean scores of male prisoners and male college students did not differ dramatically. Nonetheless, in its sensitivity to variation at extreme levels, this instrument is comparable to, and no worse than, many similar measures of related domains. Some evidence suggests that the Motor Impulsiveness factor, compared with the other two factors, could differentiate between two groups that both consist of highly impulsive subjects, but in which one of the groups has even higher levels of impulsivity than the other group (e.g., aggressive extreme offenders and less-aggressive extreme offenders).

As proposed by Barratt et al. (2005), the BIS-11 is probably best suited for use as a research instrument in tandem with other related measures. Given the lack of established norms and the possibility of decreased sensitivity at extreme levels, it is not strongly indicated for use in individual clinical assessment and is poorly indicated for use in the prediction of future impulsive behavior. However, although supporting literature is currently lacking, the BIS-11 may be useful as a means of measuring change over time or individuals' progress in treatment.

Barratt indicates that a BIS-11 total score of ≥75 has a high probability of being related to an impulse-control disorder (Barratt et al. 2005). Scores in the range of 70–75 could suggest pathological impulsivity. These cutoff scores are based on feedback from researchers and published data from hundreds of experiments in which the BIS-11 has been used. Among nonclinical subjects, dividing subjects into two groups based on the median BIS-11 score of the sample (median split approach) more often than not produces a significant difference in a wide range of laboratory and clinical measures (e.g., errors of commission on a wide range of decision-making tasks).

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◎ SOUTH OAKS GAMBLING SCREEN (SOGS)

H.R. Lesieur and S.B. Blume

Goals

The SOGS (Lesieur and Blume 1987, 1993) was developed as a quantifiable, structured instrument to assess pathological gambling; it can be easily administered by professionals and nonprofessionals. Although the SOGS questions do not correspond exactly with either the DSM-III-R criteria (American Psychiatric Association 1987) or the DSM-IV criteria for pathological gambling, they assess the essential features of the disorder as defined in both DSM editions. Specifically, the SOGS assesses recurrent and maladaptive gambling behavior that disrupts personal, family, and vocational pursuits. Whereas DSM-III-R and DSM-IV also address the emotional components of gambling, the SOGS does not; rather, it focuses primarily on associated maladaptive social and financial behavior.

Description

The SOGS is a 20-item questionnaire that can be administered in either interview or self-report format. The measure includes 26 questions that incorporate 35 actual items; however, only 20 items are scored. The first three questions (on the type and frequency of gambling activities, maximum amount gambled in 1 day, and parental gambling history) are intended to provide background information and to help respondents define their gambling behavior. The original version (Lesieur and Blume 1987) uses primarily a yes/no format. The revision (Lesieur and Blume 1993) provides clarification of wording based on previous usage in epidemiological studies and also uses primarily a yes/no format. Questions assess the degree and breadth of consequences (social, financial, and occupational) caused by gambling losses and maladaptive compensatory behaviors, such as

borrowing or gambling further to recoup losses. The SOGS addresses gambling behavior across the lifetime. Past year (Abbott and Volberg 1991) and past 6-month (Ladouceur and Sylvain 2000) versions have been developed for research. The SOGS may also be completed by an informant to provide a cross-check of an individual's responses. Sample items are provided in Example 29–2.

Scores are obtained by summing all positive responses. Multiple-choice responses are changed into dichotomous scores, so that all positive responses are coded yes. The authors identify ≥5 as a cutoff score for probable pathological gambling, a score of 3–4 as signifying some problem, and a score of 0–2 as suggesting no problem.

The SOGS is included on the CD-ROM that accompanies this handbook.

Practical Issues

Administration time is not specified but is estimated to be 20 minutes. There is no manual for this measure, although the Lesieur and Blume (1987) article provides instructions on administration and scoring. The SOGS has been translated into more than 35 languages, including Cambodian, Dutch, French, German, Hmong, Italian, Japanese, Lao, Spanish, Swedish, Turkish, and Vietnamese. Validity studies have been conducted on Chinese (Kwan 1995), Spanish (Echeburua-Odriozola et al. 1994), and Turkish (Duvarci and Varan 2001) versions.

The items are printed in full in the original article (Lesieur and Blume 1987). The revised items are also printed in full in the later article (Lesieur and Blume 1993). The SOGS is copyrighted by the South Oaks Foundation. Individual professionals may copy and use the SOGS in their clinical work without specific permission. Organizations and institutions interested in using the SOGS should write for permission to:

> Director of Chemical Dependency and
>   Gambling Programs
> South Oaks Hospital
> 400 Sunrise Highway
> Amityville, NY 11701

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The SOGS is included on the CD-ROM that accompanies this handbook.

EXAMPLE 29–2.   Sample items from the South Oaks Gambling Screen

> 7.   Did you ever gamble more than you intended to?
>
> 14. Have you ever borrowed from someone and not paid them back as a result of your gambling?

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Psychometric Properties

Reliability and validity studies were conducted with the original 1987 version of the SOGS. Validity has been established in numerous studies (e.g., Abbott and Volberg 1991; Stinchfield 2002).

Reliability

Reliability was assessed in a sample of 749 subjects, including 213 members of Gamblers Anonymous, 384 college students, and 152 hospital employees. In the original study, the SOGS was found to be highly internally consistent; Cronbach α was 0.97. Stinchfield and Winters (2001) found that Cronbach α was 0.80 for the lifetime version of SOGS at treatment intake; a 6-month version had an α of 0.94. Welte and colleagues (2001) found a current α of 0.81 for a general-population sample when using the past-year version of the SOGS. Volberg (2002) found similar results with the past-year SOGS ($r = 0.79$) in a study of the general population.

To evaluate test-retest reliability in the original study, researchers asked the 74 inpatients and 38 outpatients at South Oaks Hospital to complete the SOGS at two time points 30 or more days apart. Of these subjects, 20 (18%) were identified as pathological gamblers. When a dichotomous classification of pathological gambling was used, the test-retest correlation was 0.71 for all patients (1.0 for outpatients and 0.61 for inpatients). Among inpatients, scores dropped between the two testings, lowering test-retest reliability for the sample as a whole. This decline was attributed to inpatients' awareness that scores were being used for treatment-planning purposes—hence, their motivation to underreport their gambling problems. Test-retest reliability has also been found to be high with the Spanish version of the SOGS (Echeburua-Odriozola et al. 1994).

Validity

Patients' self-reported SOGS scores correlated strongly with evaluations of gambling behavior by counselors and family members. A total of 297 patients admitted for drug or alcohol abuse completed the SOGS on admission to South Oaks Hospital. Counselors also independently

evaluated these patients on a 5-point scale. Patients' scores on the SOGS were highly correlated with counselors' independent assessments ($r = 0.86$). A total of 127 family members were asked to assess their relatives' gambling behavior. Family members' assessments were also correlated with patients' scores on the SOGS ($r = 0.60$).

The SOGS was assessed against the Problematic Signs Index (Lesieur and Heineman 1988), a four-factor index based on the DSM-III-R criteria for evaluating gambling-related functional impairment (family disruption, work or school problems, financial problems, and illegal behavior). In a sample of 100 inpatient adolescent and young adult substance abusers, SOGS scores correlated with the total index ($r = 0.84$) and with individual factors ($r = 0.57-0.71$).

SOGS scores were also found to correlate with scores on a self-report checklist of DSM-III-R criteria for pathological gambling in a sample of 213 members of Gamblers Anonymous, 384 college students, and 152 hospital employees ($r = 0.94$).

Concurrent validity has been examined in a wide variety of studies. It has been shown to be associated with frequency of gambling (Stinchfield 2002), an increased level of faulty gambling-related cognition (Hardoon et al. 2001), and self-exclusion from casinos (Ladouceur et al. 2000) as well as other measures.

To assess the sensitivity (ability to avoid false-negative results) and specificity (ability to avoid false-positive results) of the SOGS, researchers cross-checked the SOGS and DSM-III-R checklist scores. When a SOGS cutoff score of 5 was used, only 4 (2%) of the Gamblers Anonymous members, 18 (5%) of the college students, and 1 (1%) of the hospital employees were erroneously classified. Across the three populations, false-negative results ranged from 0.5% to 1.3% and false-positive results ranged from 0.0% to 3.4% (Lesieur and Blume 1987). More recent studies show slightly higher false-positive rates for the SOGS when using DSM-IV items as the comparison base (Shaffer and Korn 2002).

Clinical Utility

The SOGS is a comprehensive measure of an understudied disorder. The brevity of the measure makes it easy to administer and score. Well-standardized measures to assess symptom severity or treatment response in gambling are lacking, and this instrument serves as the gold standard for the assessment of pathological gambling. It is a reliable and valid measure with good sensitivity and specificity. Methodological strengths also include large sample sizes for validity and reliability studies. The SOGS was validated in a variety of populations, including substance abusers and members of Gamblers Anonymous, as well as

in nonpsychiatric control subjects. The variety of subjects distinguishes the SOGS from many other clinical measures, which are validated primarily among university undergraduates. Finally, the formal norms and cutoff scores make the SOGS a useful measure for diagnostic purposes.

One criticism of the measure is that individuals can obtain a score of 5 independent of their gambling frequency, because none of the scored questions assess frequency of gambling behavior. There are also doubts about the stringency of the cutoff score. Scores of 3–4 indicate problem gambling, the clinical significance of which may be underestimated with a cutoff score of 5. Moreover, the scale assesses lifetime gambling behavior and thus does not differentiate those with current problems from those with problems in remission. Other authors have used different time frames, including past month, past 6 months, past 12 months, and across the lifetime. The authors were concerned that 1 month may be too short; they believe that if a limited time frame is to be used, it should be at least 6 months.

When used only as a self-report measure, the SOGS may result in minimization or misrepresentation of symptoms because of patients' attempts to present themselves in a socially desirable light. Thus, the authors suggest that informants and clinicians also complete the SOGS to improve its validity. In fact, the South Oaks Leisure Activities Screen (SOLAS), a 13-item Likert-style questionnaire to be filled out by family members, was also published in the later article by Lesieur and Blume (1993). The SOLAS asks about the patients' interests in various gambling activities and can also serve as a cross-check of patients' responses to the SOGS.

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PATHOLOGICAL GAMBLING MODIFICATION OF THE YALE-BROWN OBSESSIVE COMPULSIVE SCALE (PG-YBOCS)

E. Hollander and C. DeCaria

Goals

On the basis of previous gambling research (DeCaria et al. 1998), as well as studies of obsessive-compulsive disorder (which is related phenomenologically to pathological gambling), Hollander and DeCaria of the Mount Sinai School of Medicine developed the PG-YBOCS to measure the severity and change in severity of pathological-gambling symptomatology (i.e., thoughts/urges and behaviors) in a research setting. The PG-YBOCS was modified from the original reliable and valid Yale-Brown Obsessive Compulsive Scale (YBOCS; Goodman et al. 1989a, 1989b). Although this outcome measure of pathological gambling is relatively new, it is one of the most widely used clinician-rated measures of pathological gambling.

Description

The PG-YBOCS consists of 10 clinician-administered questions that measure the severity of pathological gambling over a recent time interval (usually within the past 1 or 2 weeks). The first 5 questions assess urges and thoughts associated with pathological gambling, whereas the last 5 questions assess the behavioral component of the disorder. The basic design of the YBOCS (Goodman et al. 1989a,1989b) was retained in the PG-YBOCS, but changes were made to the wording of the scale. Both sets of questions focus on time occupied by gambling, interference due to gambling, distress associated with gambling, resistance against gambling, and degree of control over gambling. Time, interference, distress, resistance, and control are items that correspond to DSM-IV criteria for pathological gambling. Scores of 0 through 4 are assigned according to the severity of the response (0 = least severe response, 4 = most severe response). Scores for each set of questions are summed separately as well as together for a total score.

Practical Issues

Administration time is about 15 minutes. For additional information about the measure, the author can be contacted at the following address:

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The PG-YBOCS is included on the CD-ROM that accompanies this handbook.

Psychometric Properties

Reliability

Internal consistency of the PG-YBOCS, as measured using Cronbach α coefficient, was excellent (0.970). The consistency of individual items with the total score (minus that item) was good for all the items (Pallanti et al. 2005). When the subscales were examined separately, Cronbach α was high for Gambling Thoughts/Urges (0.940) and Gambling-Related Behavior (0.934).

Interrater reliability was established by looking at diagnostic agreement between three raters who previously viewed illustrative videotapes of pathological gamblers being assessed with the PG-YBOCS. Intraclass correlation coefficients (ICCs) yielded excellent interrater reliability among the three raters for the PG-YBOCS total score (ICC = 0.970), the Gambling Thoughts/Urges score (ICC = 0.936), and the Gambling-Related Behavior score (ICC = 0.943). Most individual items showed moderate correlations but all were significant. Internal consistency was high, as measured by Cronbach α coefficient (0.825). Furthermore, individual items' correlation with the total score (minus that item) was good for most items ($r = 0.47–0.76$), although correlation for two items in the Gambling Thoughts/Urges subscale was low (question 3, $r = 0.27$; question 4, $r = 0.02$), providing evidence of the lack of distress and resistance associated with gambling urges in pathological gamblers.

Validity

Convergent and discriminant validity were assessed by Pearson correlation of PG-YBOCS total change score with several scales (DeCaria et al. 1998). The pathological gambling modification of the Clinical Global Impressions Severity score (PG-CGI Severity) and the SOGS are both measures of global gambling severity. Pearson correlations between PG-YBOCS and PG-CGI Severity ($r = 0.908$, $P = 0.000$; $n = 10$) and SOGS severity ($r = 0.86, P = 0.003; n = 10$) were high, indicating convergent validity. Discriminant validity was assessed by Pearson correlation between the PG-YBOCS and the Hamilton Rating Scale for Depression (Ham-D) ($r = 0.222$, $P = 0.38; n = 10$) (DeCaria et al. 1998).

The PG-YBOCS differentiated between pathological gambling ($n = 188$) and psychiatrically healthy control subjects ($n = 149$) (Pallanti et al. 2005). The pathological gambling and control groups were significantly different regarding the total PG-YBOCS scores ($t = 42.01$, $P = 0.000; N = 337$). There were no statistically significant age- or gender-related differences between the pathological gambling group and the control group. Although pathological gambling subjects generally scored in

the "mild" to "severe" range on the PG-YBOCS, the control subjects generally scored "none."

The study by Pallanti et al. (2005) further supports the convergent validity of the PG-YBOCS, in that Pearson correlation between the total PG-YBOCS change score and the SOGS was significant ($r = 0.895, P = 0.000$; $N = 337$). Measures hypothesized not to be highly correlated with gambling displayed discriminant validity with the PG-YBOCS: the Hamilton Anxiety Rating Scale (HARS) ($r = -0.05, P = 0.974; n = 188$) and the Ham-D ($r = 0.084, P = 0.608; n = 188$). This absence of correlation confirms that the construct of the PG-YBOCS is independent from the HARS and Ham-D constructs.

Pharmacological treatment studies have used the PG-YBOCS to assess sensitivity to change (Hollander et al. 1998, 2000; Pallanti et al. 2005), with findings reflecting the utility of the PG-YBOCS as a measure of change in pathological-gambling symptom severity. In a preliminary, short-term, single-blind fluvoxamine treatment study, the Pearson correlation between the change in the total PG-YBOCS score (treatment end point–baseline) and both the CGI change score ($r = 0.778, P = 0.007$) and the Pathologic Gambling Self Report number of gambling episodes per week ($r = 0.801, P = 0.009; n = 9$) was significant (Hollander et al. 1998). Moreover, in a 16-week, randomized, double-blind, crossover design study, fluvoxamine therapy had a significant effect on gambling urges and behavior as measured by the PG-YBOCS ($F_{1,8} = 5.6, P < 0.046$) and the PG-CGI ($F_{1,8} = 14.8, P < 0.005$) improvement scores (Hollander et al. 2000). Additionally, Pallanti et al. (2005) found the Pearson correlation to be significant when they analyzed correlations between PG-YBOCS and CGI scores at the treatment end point ($r = -0.690, P = 0.000; n = 41$).

Other pharmacological treatment studies have demonstrated the utility of the PG-YBOCS as a primary outcome measure for change in pathological-gambling symptom severity (Hollander et al. 2005; Pallanti et al. 2002). In a 10-week, randomized, double-blind, placebo-controlled treatment study, pathological gambling patients who had bipolar spectrum disorders significantly improved while taking sustained-release lithium carbonate compared with placebo, as evidenced by the total PG-YBOCS score ($F_{1,28} = 18.69$, $P < 0.001$), including both the Gambling Thoughts/Urges ($F_{1,28} = 14.49, P = 0.001$) and Gambling-Related Behavior ($F_{1,28} = 8.06, P = 0.009$) subscales, as well as by the PG-CGI Severity Scale (Hollander et al. 2005). Additionally, in a 14-week treatment period, the effects of lithium and valproate treatment in two groups of pathological gamblers were assessed (Pallanti et al. 2002). The results showed significant improvement in the mean score on the PG-YBOCS ($F_{1,22} = 16.340$ for lithium; $F_{1,18} = 18.049$) for valproate, with no significant between-group differences found.

Clinical Utility

The PG-YBOCS is a widely known and used measure (in a research setting) of pathological-gambling severity and change that is easily administered. This scale may serve as an important tool for clinicians and researchers treating pathological gamblers and as a means of assessing current severity more objectively and of monitoring and assessing changes in gambling urges and behavior. The PG-YBOCS is likely best suited for use in a research setting with other baseline ratings of severity, global measures of treatment response, and measures of comorbid factors. The PG-YBOCS is subfactored into Gambling Thoughts/Urges and Gambling-Related Behavior. Scores can be factored by totaling the Gambling Thoughts/Urges score, the Gambling-Related Behavior score, and/or the overall score (i.e., the sum of the Gambling Thoughts/Urges score and the Gambling-Related Behavior score).

Although the PG-YBOCS has been adopted only in a few clinical trials and in experimental settings, its user-friendliness is such that it can be applied in the "real world." On the basis of preliminary evidence, the PG-YBOCS has been found to be a promising, reliable, valid, sensitive, and specific measure of pathological-gambling severity and change among pathological gamblers over the course of treatment. Further, indications of the validity of the PG-YBOCS come from its use in pharmacological treatment studies, which showed improvements on PG-YBOCS scores with different treatments in different samples. These results provide evidence of consistency with different treatments, and show that this simple and relatively easy-to-use instrument fits with the core dimension of the disorder. One limitation is that it has not been used with cognitive-behavioral therapy.

Other limitations include the lack of formal norms or standardization of scores, and the fact that psychometric properties are based on preliminary findings from drug treatment studies with small sample sizes, limiting its utility as a clinical assessment tool. Further studies are needed to investigate the psychometric properties of the PG-YBOCS across various demographic characteristics (e.g., age, race, occupation). Similarly, the other properties of this instrument, including its predictive utility within specific gambling populations (e.g., horse track betters, roulette players, slot players), should be examined to ensure the accuracy and utility of the measure.

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GAMBLING SYMPTOM ASSESSMENT SCALE (G-SAS)

S.W. Kim, J.E. Grant, D.E. Adson, Y.C. Shin

Goals

The G-SAS was designed to assess gambling symptom severity and change during treatment. The scale was designed primarily for those gamblers who have prominent gambling urges. Since almost all gamblers have urges to gamble, this scale can be applied to pathological gamblers in general.

Description

The G-SAS is a 12-item self-rated scale designed to assess the change of gambling symptoms during treatment and measures gambling urges, thoughts, and behavior. Each item is scored on a 5-point scale from 0 (no symptoms) to 4 (extreme symptoms). Thus, a total score ranges from 0 to 48. All items ask patients to rate the average intensity

of a symptom over the past 7 days. Items 1–4 ask about urge-to-gamble symptom severity, frequency, duration, and control (one's ability to divert or stop the urge to gamble), excluding other urges. Sample questions include "If you had unwanted urges to gamble during the past WEEK, on average, how strong were your urges?" and "During the past WEEK, how many times did you experience urges to gamble?" Items 5–7 ask for the average frequency, duration, and control of thoughts associated with gambling (excluding other thoughts). A sample question is "During the past WEEK, how often did thoughts about gambling and placing bets come up?" Item 8 asks for the duration of gambling behavior. Item 9 asks for the degree of excitement caused by an imminent gambling act. Item 10 asks about excitement caused by winning a bet. Item 11 asks about subjective distress caused by gambling. Item 12 asks about personal trouble (relationship, financial, legal, job, medical, or health) caused by gambling. The maximum score is 48. A score of 31–40 indicates severe gambling symptoms; 21–30, moderate gambling symptoms; and 8–20, mild gambling symptoms.

Practical Issues

It takes approximately 10 minutes to complete the G-SAS. It is easily scored by hand, and no training is required for administration. The G-SAS has been published in its entirety (Kim et al. 2001). For additional information about the measure, the author can be contacted at the following address:

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The G-SAS is included on the CD-ROM that accompanies this handbook.

Psychometric Properties

Reliability

The G-SAS test-retest reliability over a 1-week period showed a good correlation ($r = 0.704$; $n = 58$). For the internal consistency, Cronbach $\alpha = 0.890$ and one-factor model G-SAS item loading ranged from 0.661 to 0.811. The two-factor model showed that urge symptom item 1 (severity measure) coheres with significant gambling symptoms such as gambling-related subjective distress, interpersonal difficulty, and gambling activities (component 1). Urge frequency, thought frequency, and gambling frequency, on the other hand, belonged to an independent factor (component 2).

Validity

The G-SAS showed good convergent validity when compared with the pathological gambling modification of the PG-CGI Improvement scale: visit 3, $r = 0.0427$ (visit 3 is the first visit in which changes in symptoms are recorded); visits 4–13, $r = 0.677$–0.823 ($n = 48$ for all visits). For all visits, 2-tailed P values were < 0.01 (Kim et al. 2001).

The G-SAS has been revised on the basis of the above psychometric data. Item 6, which had the lowest factor loading, was deleted. Also, the scoring interval for each item was reduced from a 9-point scale to the current 5-point scale (0 [no symptoms] to 4 [extreme symptoms]), and two new items were added to enhance sensitivity. Because of these changes, the psychometric properties of the revised scale were examined based on the preliminary data available from an active treatment study. The revised G-SAS showed superior convergent validity when compared with the PG-CGI Improvement and Severity scales: the median correlation between the G-SAS and the PG-CGI Improvement scale over an 8-week period was 0.784 (visit 1 through visit 4; $n = 16$–18). For the G-SAS versus the PG-CGI Severity scale, the correlation coefficient was 0.812 (Kim et al. 2001).

Clinical Utility

The G-SAS was designed primarily for research studies but can be used in a clinical setting. In a clinical setting, serial administration of the G-SAS to patients will provide clinicians and patients with a clear picture of quantitative change in gambling symptoms. The G-SAS should only be used to assess changes in gambling symptom severity and not for diagnosis of pathological gambling. The process of making a diagnosis such as pathological gambling incorporates etiologic, pathophysiological, and symptomatic information, whereas the G-SAS simply assesses changes in gambling symptom severity. Gambling symptoms may occur in the context of different psychiatric diagnoses. The presence of gambling symptoms is necessary but not sufficient to arrive at a diagnosis of pathological gambling. However, if the symptoms do not change significantly in spite of an active intervention or change only minimally, the G-SAS scores might provide a clue that the diagnosis might be incorrect. The G-SAS should not be used with gamblers who do not have gambling urge symptoms.

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MASSACHUSETTS GENERAL HOSPITAL (MGH) HAIRPULLING SCALE

N.J. Keuthen, R.L. O'Sullivan, J.N. Ricciardi, D. Shera, C.R. Savage, A.S. Borgmann, M.A. Jenike, and L. Baer

Goals

The MGH Hairpulling Scale (Keuthen et al. 1995) was developed to evaluate the severity of trichotillomania, a disorder characterized by repetitive hair pulling. The measure was modeled after the Y-BOCS but differs from the Y-BOCS in that it does not include questions on obsessional ideation. This measure assesses the urge to pull hair, the actual amount of pulling, perceived control over hair pulling, and associated distress. The MGH Hairpulling Scale was designed to evaluate the baseline severity of trichotillomania and to assess change in symptom severity over time. The scale is intended for both clinical and research settings.

Description

The MGH Hairpulling Scale is a seven-item self-report questionnaire scored on a 5-point Likert scale ranging from 0 = no symptoms to 4 = severe symptoms.

The first three items of the scale assess frequency, intensity, and perceived control over hair-pulling urges. Items 4–6 assess attempts to resist hair-pulling urges and control over hair-pulling behavior. Item 7 assesses distress associated with hair-pulling behavior. Sample items are provided in Example 29–3.

The total score, which ranges from 0 to 28, is obtained by summing the answers to the seven individual questions. Higher scores indicate greater severity. Because the scale was developed relatively recently, there are no standardized scores. On the original study of 119 outpatients with trichotillomania, however, mean scores ranged from 1.72 ± 1.21 to 2.73 ± 1.15 across the seven questions.

Practical Issues

Administration time is not specified but may be estimated at about 10 minutes. The test questions are printed in full in the original journal article (Keuthen et al. 1995).

EXAMPLE 29–3.   Sample items from the Massachusetts General Hospital Hairpulling Scale

1. On an average day, how often did you feel the urge to pull your hair?

    0 = This week I felt no urges to pull my hair.

    1 = This week I felt an occasional urge to pull my hair.

    2 = This week I felt an urge to pull my hair often.

    3 = This week I felt an urge to pull my hair very often.

    4 = This week I felt near constant urges to pull my hair.

4. On an average day, how often did you actually pull your hair?

    0 = This week I did not pull my hair.

    1 = This week I pulled my hair occasionally.

    2 = This week I pulled my hair often.

    3 = This week I pulled my hair very often.

    4 = This week I pulled my hair so often it felt like I was always doing it.

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The author of the measure holds the copyright to the measure and can be contacted at the following address:

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The MGH Hairpulling Scale is included on the CD-ROM that accompanies this handbook.

Psychometric Properties

Reliability

There is good evidence of internal consistency. Cronbach α was 0.89 for 119 subjects with diagnoses of trichotillomania determined on the basis of DSM-IV criteria. Item-total correlations (correlations between individual items and the total score) ranged from 0.49 to 0.76, suggesting that all items measure a related construct.

Test-retest reliability of the MGH Hairpulling Scale was also assessed. Twenty-two patients with trichotillomania completed the scale before and after a regular scheduled treatment appointment; administrations were separated by about 1 hour. Scores from the two administrations were correlated ($r = 0.97$).

Validity

Validity data were derived from a study of 26 patients with trichotillomania who were receiving pharmacological or behavioral treatment. Although to date there has been only one study (and the sample size was small), validity data appear promising. Compared with other measures of similar domains, the MGH Hairpulling Scale yielded strong positive correlations. The MGH Hairpulling Scale was highly correlated with both the PITS ($r = 0.63$) and the CGI Severity scale ($r = 0.75$). The MGH Hairpulling Scale did not correlate with the Beck Depression Inventory (BDI) ($r = 0.30$) or the Beck Anxiety Inventory (BAI) ($r = 0.01$). These findings suggest that the MGH Hairpulling Scale measures a specific domain and cannot be considered a nonspecific measure of general psychiatric dysfunction.

Sensitivity to change was assessed in 23 patients at two different time points separated by 2–4 weeks. Change on the MGH Hairpulling Scale was inversely correlated with change on the CGI Scale ($r = -0.50$) and positively correlated with change on the PITS ($r = 0.83$) and on the CGI Severity scale ($r = 0.74$).

Clinical Utility

The MGH Hairpulling Scale is a self-report measure of an understudied disorder. The brevity of the measure makes it easy to administer and score. The development of well-standardized trichotillomania measures is in the early stages, and the authors have made promising steps toward a reliable and valid measure appropriate in a variety of settings.

One strength of the MGH Hairpulling Scale is that it was validated on patients with clinical symptoms and not on an undergraduate population. To date, however, there are no reports of the use of the MGH Hairpulling Scale in comparison groups such as psychiatrically healthy control subjects, psychiatric control subjects, or non-treatment-seeking trichotillomania patients.

Given the early state of development, there are no formal norms and no standardization of scores, which limit this scale's utility as a clinical assessment tool. Other methodological difficulties include the small sample sizes in the validity and reliability studies and the short period (only 1–2 hours) between administrations of the scale in test-retest reliability assessments.

Although the authors state that this measure was developed to assess severity of trichotillomania, there is no mention of cut points to identify what score would indicate the presence of the disorder or would differentiate mild from severe trichotillomania.

Given the prevalence of trichotillomania in children and in mentally retarded populations, as well as the inherent limitations of self-report instruments, administration of this instrument to key informants, such as parents, siblings, or spouses, might be of use. Although there are no reports regarding administration of this measure to informants, the items that focus on direct observation (e.g., frequency of pulling) may be adapted fairly easily to such a format. For items that pertain to subjects' mental state (e.g., perceived control over symptoms), informants' responses could involve inferences drawn from their observations of subjects' behavioral patterns.

The authors also note that the MGH Hairpulling Scale addresses only the behavioral aspects of trichotillomania. They note that it does not address the negative self-image and shame that are common aspects of this disorder, nor does it address frequently associated behaviors such as social avoidance and use of head coverings and hairpieces.

The MGH Hairpulling Scale is a promising scale with strong, but preliminary, reliability and validity data. This scale appears to be useful as a measure of baseline severity of trichotillomania and of sensitivity to change. Given the absence of cutoff scores and of data in nonpatient control subjects, it is not recommended as a diagnostic tool at this time.

References and Suggested Readings

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PSYCHIATRIC INSTITUTE TRICHOTILLOMANIA SCALE (PITS)

R.M. Winchell, J.S. Jones, A. Molcho, B. Parsons, B. Stanley, and M. Stanley

Goals

The PITS (Winchel et al. 1992a) was developed to assess trichotillomania. This measure assesses the number of hair-pulling sites, quantity of hair loss, time spent pulling and thinking about pulling, resistance to hair-pulling urges, distress regarding hair-pulling behavior and its consequences, and interference with daily activities. The PITS is designed to evaluate current symptom severity as well as change in symptom profile and severity over time.

Description

The PITS is a six-item semistructured interview designed to be administered by a clinician. The measure includes a seven-item hair-pulling history interview, in which the interviewer asks questions about age at onset, course of illness, sites of hair pulling, and associated maladaptive behavior. The responses from this section are not included in the final score but are used to aid scoring of six scales. These six scales—Sites, Severity, Duration, Resistance, Interference, and Distress—form the heart of the interview. Each scale includes several structured questions (e.g., "On an average day this past week, how much time would you say you spent pulling your hair or thinking about it?"). Several scales also include optional probes ("Is it closer to a few minutes or a few hours?"). The first two questions on Sites and Severity are scored on the basis of both direct clinical observation and patient report. The remaining four questions on Duration, Resistance, Interference, and Distress rely on patient report alone. Items are rated on an 8-point scale ranging from 0 = no symptoms to 7 = severe symptoms. Subjects' responses reflect their behavior during the past week. Sample items are provided in Example 29–4.

Possible scores range from 0 to 42; higher scores reflect greater severity. Neither normative data nor cutoff scores are provided.

Practical Issues

Administration time is not specified but is estimated to be approximately 20 minutes. Detailed instructions on administration and scoring are provided, and the scale is printed in full in the article by Winchel et al. (1992a).

The PITS is included on the CD-ROM that accompanies this handbook.

EXAMPLE 29–4. Sample items from the Psychiatric Institute Trichotillomania Scale

1) **SITES:**

(The score for this item should be based on both interview and direct inspection…)

From what part or parts of your body do you pull your hair? Do you ever pull hairs on your arms or legs, or other places like your torso or from pubic areas? Any other places?

(Some people pull hair from areas they find embarrassing to talk about. *Do you feel that way? If YES, which sites do you find embarrassing to discuss?*)

  0 = No sites
  1 = 1 non-scalp site
  2 = 1 scalp site
  3 = 2 non-scalp sites
  4 = 2 sites including scalp
  5 = 3 sites
  6 = 4 sites
  7 = 5 sites or more

3) **RESISTANCE:**

When the urge to pull is present, are you ever able to resist? How much of the time can you resist the urge and not pull? Some of the time? A lot of the time? (More than half the time, less than half the time?)

  0 = No urge
  1 = Always able to resist
  2 = Almost always able to resist
  3 = Able to resist ¾ of the time
  4 = Able to resist ½ to ¾ of the time
  5 = Able to resist ¼ to ½ of the time
  6 = Rarely able to resist
  7 = Never able to resist

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Psychometric Properties

Reliability

Reliability data are not yet available.

Validity

Twenty-six subjects with diagnoses of trichotillomania according to DSM-IV criteria completed the PITS and the MGH Hairpulling Scale. The PITS was strongly correlated with the MGH Hairpulling Scale ($r = 0.63$).

The PITS and the MGH Hairpulling Scale were also administered at two time points, separated by 2–4 weeks, to 22 patients receiving behavioral and pharmacological treatment for trichotillomania. Change on the PITS was significantly correlated with change on the MGH Hairpulling Scale ($r = 0.83$). It should be noted that the MGH Hairpulling Scale has not been validated on any specific measure of trichotillomania other than the PITS.

Clinical Utility

The PITS is a comprehensive interview-based measure that evaluates an understudied disorder. Few measures have been developed to assess trichotillomania, and this scale is an attempt to address this need.

The format of the instrument offers several potential advantages. The interview format is useful because the examiner is able to ensure that subjects understand the questions, and comprehensive information about the disorder can be obtained. The PITS assesses a range of associated feelings and behaviors and allows quantified observations of actual hair loss. It also provides detailed evaluation of symptom site and severity.

Although there is preliminary evidence of convergence with other similar measures, as well as evidence of sensitivity to change, the PITS is still in the preliminary stages of standardization. No reliability studies have been published, and only one study has addressed validity. Moreover, the measure used to assess criterion validity (the MGH Hairpulling Scale) is also in the early stages of validation. Finally, there are no formal norms or cutoff scores for this scale. Thus, interpretation of individual scores is difficult, as is determination of a formal diagnosis of trichotillomania.

The interview format may be difficult for some subjects, because much shame and embarrassment are associated with this disorder. Subjects may be reluctant to show hair-pulling sites to the clinician and may underreport the extent of their symptoms. Subjects may also attempt to present themselves in a socially desirable light and may not report symptoms accurately.

Given the prevalence of childhood trichotillomania and the high comorbidity of trichotillomania and mental retardation, administration of this instrument to key informants, such as parents or other caregivers, might be of use. Although there are no reports regarding administration of this measure to informants, the items that require direct observation (e.g., number of hair-pulling sites) may be adapted fairly easily to such a format. For items that pertain to subjects' mental state (e.g., distress regarding hair-pulling behavior), informants could draw inferences from their observations of subjects' behavioral patterns. Items that involve systematic observation by the interviewer (e.g., amount of hair loss) would probably best remain in the original format.

The PITS is a promising and fairly comprehensive scale designed to evaluate severity and sensitivity to change in patients with trichotillomania. However, this measure requires considerable additional evaluation.

References and Suggested Readings

O'Sullivan RL, Keuthen NJ, Hayday CF, et al: The Massachusetts General Hospital (MGH) Hairpulling Scale, II: reliability and validity. Psychother Psychosom 64:146–148, 1995

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⊚ KLEPTOMANIA SYMPTOM ASSESSMENT SCALE (K-SAS)

J.E. Grant and S.W. Kim

Goals

The K-SAS (Grant and Kim 2002) was designed to measure the thoughts, urges, and behaviors associated with compulsive stealing. The scale was constructed on the basis of the observation that the thought patterns and behaviors of patients with kleptomania are similar to those of patients with substance addictions or behaviors such as gambling. The K-SAS is a modification of the G-SAS (discussed earlier in this chapter; a 12-item self-rated scale that assesses change in urges, thoughts, and behavior associated with pathological gambling) and is designed to measure thought patterns and behaviors in people unable to control their stealing.

Description

The K-SAS is an 11-item self-rated scale designed to assess the change of kleptomania symptoms during treatment. All items ask for an average symptom based in the past 7 days. Each of the 11 items has a score of 0 to 4. Thus, a total score ranges from 0 to 44. Higher scores reflect greater symptom severity. Scores ranging from 31 to 44 reflect severe kleptomania symptoms, while scores ranging from 21 to 30 indicate moderate symptoms. In two treatment samples the mean scores ranged from 22 to 37 (Grant and Kim 2002; Grant et al. 2003).

Four questions examine urges to steal (intensity, frequency, preoccupation with urges, and control over urges); three questions examine thoughts of stealing (frequency, preoccupation with thoughts, and control over thoughts); two questions ask about excitement or tension immediately prior to and after the act of theft; and two questions examine emotional distress and impairment due to stealing.

Practical Issues

It takes approximately 10 minutes to complete the K-SAS. It is easily scored by hand, and no training is required for administration. The K-SAS has been published in its entirety (Grant and Kim 2002). Copyright for the K-SAS is held by Physicians Postgraduate Press, and permission for its use must be requested:

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The K-SAS is included on the CD-ROM that accompanies this handbook.

Psychometric Properties

Reliability

The K-SAS has been examined in two treatment studies of individuals with kleptomania (Grant 2005; Grant and Kim 2002). The K-SAS has demonstrated good internal consistency (Cronbach $\alpha = 0.90$). In an open-label treatment study that included a 1-week placebo lead-in, subjects were examined at study entry and after 1 week of placebo treatment. Test-retest reliability statistics for the K-SAS total score indicated an ICC of 0.57.

Validity

The K-SAS was shown to correlate positively ($r = 0.63$–0.87) with the CGI Scale and negatively with the Global Assessment of Functioning (GAF) Scale ($r = -0.62$ to -0.88) (Grant 2005; Grant and Kim 2002). One study examining perceived stress in individuals with kleptomania found that the K-SAS total severity score positively correlated with levels of perceived stress ($r = 0.71$; Grant et al. 2003). With use of the CGI as a gold standard, a 50% decrease in the K-SAS total score best corresponded to much or very much improved on the CGI.

Clinical Utility

The K-SAS is a self-report measure of an understudied disorder. No other measures have been developed to assess kleptomania symptoms, and this scale is an attempt to address this need. The major strength of the K-SAS is its coverage of multiple symptom domains of kleptomania: urges, thoughts, behavior, and distress. Another strength of the K-SAS is that it was validated on patients with clinical symptoms. There are, however, no reports of the use of the K-SAS in comparison groups such as psy-

chiatrically healthy control subjects, psychiatric control subjects, or non-treatment-seeking kleptomania patients.

Additional limitations of the K-SAS include its limited psychometric data and the methodological difficulties of assessing validity and reliability in small samples. Although there is preliminary evidence of convergence with other measures, as well as evidence of sensitivity to change, the K-SAS is still in the preliminary stages of standardization. Thus, interpretation of individual scores is difficult. Although the K-SAS was developed to assess severity of kleptomania, there are limited data concerning cut points to identify what score would differentiate mild from severe kleptomania.

Because of the shame and embarrassment associated with kleptomania, subjects may be reluctant to admit the extent of their criminal behavior and may underreport the extent of their symptoms on a self-report measure. Subjects may also attempt to present themselves in a socially desirable light and may not report symptoms accurately.

The K-SAS is a promising scale with strong, but preliminary, reliability and validity data. This scale appears to be useful as a measure of baseline severity of kleptomania and of sensitivity to change. The primary use of the K-SAS is the clinical evaluation of kleptomania symptoms. The K-SAS can provide a measure of symptom severity that may be useful in planning treatment. Repeated assessments can provide information regarding clinical status and serve as a measure of treatment response. In clinical research, the K-SAS may be useful both as an outcome measure and as a prognostic indicator for treatment studies.

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