The Interface

Measuring Self-Harm Behavior with the Self-Harm Inventory

by Randy A. Sansone, MD, and Lori A. Sansone, MD

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This ongoing column is dedicated to the challenging clinical interface between psychiatry and primary care—two fields that are inexorably linked.

ABSTRACT

Self-harm behavior is exhibited by a substantial minority of the general population and may be particularly prevalent among adolescents and clinical samples, both in psychiatric and primary care settings. A number of measures are currently available for the assessment of self-harm behavior. These vary a great deal in terms of their content, response options, targeted clinical audience, time to complete, and availability. The Self-Harm Inventory, a measure that we developed for the assessment of self-harm behavior, is one-page in length, takes five or less minutes to complete, and is free-of-charge. Studies indicate that the Self-Harm Inventory does the following: 1) screens for the lifetime prevalence of 22 self-harm behaviors; 2) detects borderline personality symptomatology; and 3) predicts past mental healthcare utilization. Hopefully, more efficient assessment of self-harm behavior will lead to more rapid intervention and resolution.

KEY WORDS

borderline personality, self-destructive behavior, self-harm, self-harm behavior, Self-Harm Inventory, suicide attempt

INTRODUCTION

Nonsuicidal self-harm behavior refers to specific self-destructive behaviors that are undertaken to damage or harm oneself, but not to intentionally end life. The prevalence of self-harm behavior in community and clinical populations has undergone relatively limited empirical study. However, in a 2001 article, Welch[1] reviewed the relevant English literature and concluded that the 12-month prevalence of self-harm behavior in the general population is between 0.003 and 1.1 percent, with a lifetime prevalence of 0.7 to 5.9 percent.

As for explicit empirical studies, most have explored non-United States adolescent populations. For example, in a Canadian study, 17 percent of youths ages 14 to 21 years reported self-harm behavior, particularly self-cutting, scratching, and hitting (83%).[2] In a multinational European study, Madge et al[3] surveyed over 30,000 students ages 15 to 16 years and found lifetime prevalence rates from two percent (boys in the Netherlands) to 17 percent (girls in Belgium), with female students demonstrating consistently higher rates of self-harm. O'Connor et al[4] studied Scottish students ages 15 to

16 years and found lifetime rates for self-harm behavior of 14 percent. In an Irish sample of over 4500 adolescents,[5] nine percent of respondents reported lifetime self-harm behavior. In a German study of ninth graders, Brunner et al[6] reported a 12-month prevalence of 11 percent. In a Finnish study of over 4200 students ages 13 to 18 years, Laukkanen et al[7] found that the lifetime prevalence of self-cutting was 12 percent. In a Norwegian study of adolescents, Larsson and Sund[8] reported a lifetime self-harm rate of three percent. Collectively, these data among non-United States adolescent community populations indicate that between 2 and 17 percent have engaged in self-harm behavior at some point in their lifetimes.

Understandably, the rates of self-harm behavior are considerably higher in clinical populations. For example, we examined self-harm behaviors among United States women diagnosed with borderline personality disorder (BPD) who were being treated in a psychiatric or a primary care setting.[9] In both settings, rates of self-harm behavior were high. Explicitly, in the psychiatric setting, 41 percent of participants with BPD reported cutting themselves, 52 percent hitting themselves, 52 percent driving recklessly, 44 percent banging their heads, 22 percent losing a job on purpose, and 11 percent purposefully exercising an injury.

These data indicate that self-harm behavior is fairly prevalent in Western countries, especially among youth and particularly in females, and even higher in clinical populations, including primary care patients. Given that self-harm behavior is encountered in a substantial minority of psychiatric and primary care patients, what are the options for clinical assessment or screening?

MEASURES OF SELF-HARM BEHAVIOR

A number of measures for the assessment of self-harm behavior are available. We will first introduce and describe these various measures in chronological order (i.e., their year of introduction or copyright), and we will then detail our own measure, the Self-Harm Inventory.

Chronic Self-Destructiveness Scale (CSDS). Entitled the "Personal Preferences Scale," the CSDS (1985) is a 73-item, two-page inventory with Likert-style response options that explores high-risk behaviors that are typically reflective of impulsivity (e.g., "Riding fast in a car is thrilling," "I have done dangerous things just for the thrill of it."). [10] Unlike most of the upcoming self-harm measures, there are several health-related items such as, "I have a complete physical examination once a year," and, "I always do what my doctor or dentist recommends." The scoring key is gender specific, the measure has some reverse-score items, and the resulting score is the "self-destructiveness score." Surprisingly, there are no suicide-attempt items.

Self-Harm Behavior Survey. The Self-Harm Behavior Survey (1986) is a 174+ item, multipage, self-report survey with a variety of response options.[11,12] The survey explores demographic information, family history of mental illness, religious background, family relationships, self-harm behavior (e.g., wrist and body cutting, carving words or symbols on skin, burning skin, pulling out hair), personal feelings about self-harm events, scar history, function of self-harm behavior, eating disorder symptoms, psychotropic medication history, and hospitalization history secondary to self-mutilation—but not suicide attempts.

Self-Injury Survey. The Self-Injury Survey (1994) is a four-page, self-report measure with 31 self-harm items, a write-in listing of suicide attempts, and a check-off list of reasons for self-injury, types of past intervention, and damage effects.[13] This measure explores suicidal ideation, as well.

Impulsive and Self-Harm Questionnaire. The Impulsive and Self-Harm Questionnaire (1997) is a 14-item, one-page, self-report survey with Likert-style response options that explores a variety of impulsive and self-destructive behaviors (e.g., self-mutilation, accident proneness), including suicide attempts.[14] This measure was developed for a dissertation and has had limited clinical exposure.

Self-Injurious Behavior Questionnaire (SIB-Q). The SIB-Q (1997) is a clinician-rated, 25-item scale with Likert-style response options that measures self-injurious behavior among those with developmental disabilities.[15] Examples of items are, "physical aggression toward others," "destructive to property or objects," and "tantrums." Three items deal with behavior frequency and severity and the need for restraints. There are no items relating to suicide attempts.

Self-Injury Questionnaire (SIQ). The SIQ (1997) is a 54-item, self-report questionnaire with various response options including Likert-style and multiple-choice selections.[16] Examples of items include opening wounds, scratching scabs or lumps, cutting or hurting self, pulling out hair, scratching self, bruising self intentionally, cutting self, and burning self. There are no queries about suicide attempts.

SELF-HARM INVENTORY

Instructions: Please answer the following questions by checking either, "Yes," or "No." Check "yes" only to those items that you have done intentionally, or on purpose, to hurt yourself.

Yes	No	Have you ever intentionally, or on purpose, done any of the following:
___	___	1. Overdosed? (If yes, number of times_____)
___	___	2. Cut yourself on purpose? (If yes, number of times_____)
___	___	3. Burned yourself on purpose? (If yes, number of times_____)
___	___	4. Hit yourself? (If yes, number of times_____)
___	___	5. Banged your head on purpose? (If yes, number of times_____)
___	___	6. Abused alcohol?
___	___	7. Driven recklessly on purpose? (If yes, number of times_____)
___	___	8. Scratched yourself on purpose? (If yes, number of times_____)
___	___	9. Prevented wounds from healing?
___	___	10. Made medical situations worse on purpose (e.g.,skipped medication)?
___	___	11. Been promiscuous (i.e., had many sexual partners)? (If yes, how many?_____)
___	___	12. Set yourself up in a relationship to be rejected?
___	___	13. Abused prescription medication?
___	___	14. Distanced yourself from God as punishment?
___	___	15. Engaged in emotionally abusive relationships? (If yes, number of relationships?_____)
___	___	16. Engaged in sexually abusive relationships? (If yes, number of relationships?_____)
___	___	17. Lost a job on purpose? (If yes, number of times_____)
___	___	18. Attempted suicide? (If yes, number of times_____)
___	___	19. Exercised an injury on purpose?
___	___	20. Tortured yourself with self-defeating thoughts?
___	___	21. Starved yourself to hurt yourself?
___	___	22. Abused laxatives to hurt yourself? (If yes, number of times_____)

Have you engaged in any other self-destructive behaviors not asked about in this inventory? If so, please describe below.

Figure 1. Self-harm inventory. Copyright © 1995 Sansone, Sansone, and Wiederman

Timed Self-Injurious Behavior Scale. The Timed Self-Injurious Behavior Scale (1997) is a 16-item, clinician-rated scale that examines the frequency of self-injurious behaviors at six consecutive time intervals, each 10 minutes apart.[17] Developed for use among those with developmental disabilities, there are 16 self-harm items, but no queries about suicide attempts.

Self-Injury Questionnaire (SIQ). The SIQ (1999), not to be confused with the SIQ identified in reference 16, is a 30-item, self-report measure that assesses self-harm behaviors in terms of their frequency, function, and association with histories of childhood trauma.[18]

Deliberate Self-Harm Inventory (DSHI). The DSHI (2001) is a 17-item, yes/no, self-report questionnaire that explores the direct destruction of body tissue.[19] Respondents are also asked about the frequency, severity, and duration of such events. There are items relating to suicide attempts.

Adolescent Risk Inventory. The Adolescent Risk Inventory (2007) is a two-page, 33-item, self-report inventory, with mostly yes/no response options, that explores high-risk behaviors and attitudes.[20] While a majority of items relate to high-risk sexual behaviors, six items explore self-harm behavior including self-cutting and suicide attempts.

THE SELF-HARM INVENTORY

The Self-Harm Inventory (SHI; 1998) (Figure 1) is a one-page, 22-item, yes/no, self-report questionnaire that explores respondents' histories of self-harm.[21] Each item in the inventory is preceded by the phrase, "Have you ever intentionally, or on purpose…" Individual items include, "cut yourself, burned yourself, hit yourself, scratched yourself," and, "prevented wounds from healing." There are three eating-disorder items (i.e., "exercised an injury on purpose, starved yourself to hurt yourself, abused laxatives to hurt yourself"), two high-lethal items (i.e., "overdosed, attempted suicide"), and three items relating to medical issues (i.e., "prevented wounds from healing, made medical situations worse, abused prescription medication"). All endorsements are pathological, and the SHI total score is simply the sum of "yes" responses, with a maximum possible score of 22. At this time, the measure has been translated into German and Dutch.

During the initial evaluation phase, the SHI consisted of 41 items that were culled from clinicians' treatment experiences, and items were then tested in both psychiatric and primary populations. After subsequent analyses for item frequencies and relevance, the inventory was reduced to the most salient 22 items.

Unlike the other self-harm measures described in this article, the SHI is the only measure that is known to detect the diagnosis of BPD. In comparison with the Diagnostic Interview for Borderlines,[22] a clinical interview that takes approximately an hour or longer to administer, the SHI demonstrates an accuracy in diagnosis of 84 percent at a cut-off score of 5 (i.e., five or more endorsements).[21] In addition, increasing scores on the SHI are associated with increasing past use of mental healthcare utilization.[23]

The SHI may be used 1) as a screening instrument to catalogue the lifetime prevalence of 22 self-harm behaviors; (2) to screen for BPD; and/or (3) to predict the degree of past mental healthcare utilization. This measure has been used in a number of research projects, is free-of-charge, and takes five minutes or less to complete.

CONCLUSION

Self-harm behavior is relatively common, particularly among adolescent and clinical populations. There are a number of available measures for the assessment of self-harm behavior. Some are self-report in nature whereas others are clinician-rated. Several of these measures are designed for specific or unique clinical populations (e.g., the developmentally disabled). Available measures vary in the length of administration, degree of exploration of the context of self-harm behavior (e.g., number of times an event occurred, rationale for self-harm), formatting (e.g., Likert-style, yes/no, write-in response options), and clinician accessibility (e.g., fee for use or not, availability from author). However, all of these measures represent earnest endeavors to assess and evaluate the complex phenomenon of self-harm behavior. Whether assessing psychiatric patients, suspicious primary care patients, or high-risk populations (e.g., those with substance abuse problems, victims of domestic violence), self-harm assessment is essential. We have contributed to this effort through the development of the SHI, and offer it to the readership as an efficient means of cataloguing lifetime self-harm behavior, screening for BPD, and predicting past histories of high mental healthcare utilization. Unlike other measures, the SHI is test-worthy in both psychiatric and primary care settings. Hopefully, enhanced assessment and identification will lead to effective treatment of this oftentimes under-recognized and endangered population.

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AUTHOR AFFILIATIONS: Dr. R. Sansone is a professor in the Departments of Psychiatry and Internal Medicine at Wright State University School of Medicine in Dayton, Ohio, and Director of Psychiatry Education at Kettering Medical Center in Kettering, Ohio; Dr. L. Sansone is a family medicine physician (government service) and Medical Director of the Primary Care Clinic at Wright-Patterson Air Force Base. The views and opinions expressed in this column are those of the authors and do not reflect the official policy or the position of the United States Air Force, Department of Defense, or US government.

ADDRESS CORRESPONDENCE TO:
Randy A. Sansone, MD, Sycamore Primary Care Center, 2115 Leiter Road, Miamisburg, OH 45342; Phone: (937) 384-6850; Fax: (937) 384-6938; E-mail: Randy.sansone@khnetwork.org.