Subclinical Self-Harm: Range of Behaviors, Extent, and Associated Characteristics

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This study examined characteristics associated with mildly injurious (fingernail biting, skin picking, etc.) and more injurious (cutting, burning, etc.) self-harm (SH) in an undergraduate sample (N = 280); 31% reported mildly injurious SH within the past 3 years with no more injurious SH, whereas 20% reported more injurious SH within the past 3 years. SH was not associated with significant general negative affect or history of physical or sexual abuse, although more injurious SH was associated with a history of emotional abuse. A portion of both groups reported negative affect regarding their histories of SH. Both types of SH were associated with other impulsive and disordered eating behaviors, some obsessive– compulsive characteristics, and more somatic symptoms. Similarities and differences with clinical SH are discussed, as well as implications for further research and treatment. Arguments for and against a continuum view of self-harm, as ranging from mild to severe in injuriousness or clinical significance, are also discussed.

Keywords: self-harm, self-mutilation, skin picking

Self-harm can be defined as socially unacceptable, intentional alteration or destruction of body tissue without conscious suicidal intent. This definition is in agreement with many used in related literature (e.g., Favazza, 1998; Gratz, 2003; Linehan, 1993) and is often operationalized to include moderately to severely injurious behaviors such as skin cutting and burning (e.g., Gratz, 2001; Herpertz, 1995; Zlotnick et al., 1996); however, there are a number of other behaviors, including skin picking and scratching, hair pulling, interfering with wound healing, serious fingernail biting, and minor skin cutting, that would technically meet the above definition of self-harm but that are not generally included within the self-harm literature. For example, serious fingernail biting is considered socially inappropriate and somewhat shameful; can cause injury and infection thereby meeting the criterion of destruction of body tissue without suicidal intent; and is carried out intentionally, although the resulting tissue damage may be unintentional.

Existing research on these less injurious behaviors, including those sometimes referred to as body-focused repetitive behaviors, has found them to be associated with increased anxiety and depression (Teng, Woods, Marcks, & Twohig, 2004), obsessive– compulsive spectrum disorders (Phillips, McElroy, Hudson, & Pope, 1995), and, in the case of skin-picking, body dysmorphic disorder (Phillips & Taub, 1995). It is interesting that despite the definitional overlap between these mildly to moderately injurious behaviors and those that are more traditionally considered as self-harm, no published study that we are aware of examines these areas simultaneously. In addition, few published studies (e.g., Klonsky, Oltmanns, & Turkheimer, 2003) have examined even more “traditional” self-harm behaviors in nonclinical populations.

This study seeks to increase understanding of the range of possible self-harm behaviors by focusing on both less injurious self-harm behaviors and more injurious behaviors occurring at nonclinical levels of severity. For the purposes of this study, self-harm occurring at mildly to moderately injurious levels of severity and/or in nonclinical populations is referred to as subclinical self-harm.

Characteristics Associated With Clinical Levels of Self-Harm

The existing literature on individuals in the general population who self-harm focuses primarily on more injurious self-harm (Favazza, DeRosear, & Conterio, 1989; Garrison et al., 1993; Gratz, Conrad, & Romer, 2002; Kerr, King, Emerson, & Johnson, 2005; Klonsky et al., 2003), uses exclusively clinical samples, or focuses on only one specific self-harm behavior (Keuthen et al., 2000). Findings suggest that moderately to severely injurious self-harm is characterized by (a) a history of childhood abuse (Favazza & Conterio, 1989), (b) emotional dysregulation (Linehan, 1993), (c) a propensity to target the body for harm (Walsh & Rosen, 1988), and (d) lower impulse control that allows self-harm to be actually carried out (Simeon, Stein, & Hollandar, 1995).

Individuals who engage in clinical levels of self-harm are more likely to have a history of childhood family disruption, such as loss of a parent through divorce or death (Favazza, 1987) and childhood sexual/physical abuse, than those who do not self-harm (Favazza & Conterio, 1989; Walsh & Rosen, 1988; Zlotnick et al., 1996). In a nonclinical sample (university students in Boston), Gratz and colleagues (2002) found similar results. Participants who reported moderately to severely injurious self-harm had...
greater incidence of insecure attachment during childhood, childhood separation, emotional neglect, and sexual abuse; however, studies investigating mildly injurious levels of self-harm and childhood abuse have yet to be published.

Emotional dysregulation in individuals who engage in moderately to severely injurious self-harm is characterized by high levels of negative affect in general, and specifically before self-harm incidents (Favazza, 1988; Herpertz, 1995; Linehan, 1993). Additionally, individuals who self-harm are more likely to be unable to verbalize their intolerable affect and show higher levels of alexithymia than those who do not self-harm (Zlotnick et al., 1996). Although emotional dysregulation has not been explicitly investigated in subclinical self-harm samples, Teng and colleagues (2004) found that individuals in a nonclinical sample with body-focused repetitive behaviors (BFRBs) reported significantly higher levels of anxiety and depression than those without BFRBs.

Self-harm is hypothesized by several researchers to be associated with distorted body image or feelings of disgust or anger with the body. Muehlenkamp and colleagues (2005) investigated a structural equation model of adequate fit that connected societally based self-objectification to negative body regard, negative body regard to depression, and depression to self-harm in college women. Walsh and Rosen (1988) found variables related to body alienation (e.g., eating disorders, adolescent illness, distress over sexual identity, and inattention to physical appearance) to be strong predictors of self-harm behaviors in adolescents. Other researchers concur that individuals who self-harm have a higher incidence of eating disorders (Favazza, DeRosear, & Contiero, 1989; Sansone & Levitt, 2002; Walsh, 1987), with comorbidity reported as high as 72% in a sample with bulimia (Favaro & Santonastaso, 1998) and 62% in a sample with anorexia (Favaro & Santonastaso, 2000). Less injurious self-harm (and particularly skin picking) has also been associated with a severe form of body image disturbance, body dysmorphic disorder (Phillips & Taub, 1995); however, associations of other features of body image disturbance with subclinical self-harm have yet to be investigated.

Previous researchers have postulated a relationship between impulsivity and self-harm (Adams, Bernat, & Luscher, 2001; Favazza & Simeon, 1995; Linehan, 1993; New, Trestman, & Siever, 1995; Stanley, Gannonoff, Michalsen, & Mann, 2001; Welch & Linehan, 2002). Because of this aspect of self-harm, efforts have been made to categorize self-harm as primarily either impulsive or compulsive (both of which share the feature of lower impulse control; Favaro & Santonastaso, 1998; Simeon, Stein, & Hollander, 1995). For example, Simeon et al. (1995) proposed that compulsive self-harm tends to be more habitual and repetitive, with greater resistance to a more ego-dystonic urge. In contrast, impulsive self-harm tends to be more episodic, related to precipitating events, with little resistance to an ego-syntonic impulse to act. If such a distinction could truly be made, then co-occurring pathology, course, and treatment response could be more easily identified. Although this formulation holds promise, it has not yet been directly studied in a full range of self-harm behaviors, where confirming or disconfirming evidence is most likely to be found.

The growing self-harm literature continues to improve our understanding of self-harm, particularly moderately to severely injurious self-harm; however, even basic research regarding the extent and pattern of subclinical self-harm is yet to be done. The fundamental questions are: What are the physical and psychological correlates of subclinical self-harm? Do they parallel the established correlates of clinical levels of self-harm but simply at a lower level, or are they qualitatively different?

For the purposes of this study, subclinical self-harm was viewed on a continuum with clinical self-harm. Therefore, on the basis of existing literature on clinical self-harm, it was hypothesized that, in comparison with participants with no history of self-harm, participants who reported subclinical self-harm behaviors would (a) more frequently report histories of childhood disruption, illness, or abuse; (b) show features of emotional dysregulation (e.g., higher levels of overall negative affect, including shame and anger, and lower overall satisfaction with life; difficulties attending to, understanding, and adaptively coping with emotions; and more self-reported somatic symptoms); (c) show more characteristics of body image devaluation or disturbance, such as disordered eating behaviors and concern about physical appearance; and (d) report more characteristics consistent with poor impulse control, such as impulsive and compulsive characteristics.

It was further hypothesized, again on the basis of the conceptualization of self-harm as a continuum, that differences between participants who reported more injurious subclinical self-harm behaviors and participants with no history of self-harm would be more pronounced in each of the areas outlined above than the differences between participants who reported mildly injurious self-harm behaviors and those with no history of self-harm. Additionally, although mildly injurious behaviors such as fingernail biting and skin picking are common in the general population, it was hypothesized that participants who endorsed these behaviors would still report feelings of shame or other negative affect associated with engaging in these behaviors.

Method

Participants

Participants were 290 introductory psychology students (52% female, 48% male) from a northwestern university who participated for course credit. Previous research indicates that the first incident of self-harm typically occurs in the teens (Garrison et al., 1993; Phillips & Taub, 1995; Stein et al., 1995); thus, it was expected that traditional college-age participants would likely have relatively good recall of initial self-harm episodes. Only participants who reported self-harm incidents in the previous 3 years were included in the self-harm groups, to help ensure accuracy of memory for the events and homogeneity of self-harm groups. An additional 10 participants were excluded for missing data.

The remaining 216 participants were assigned to groups on the basis of their histories of self-harm, with 77 participants (66% female, 34% male) reporting no history of self-harm at any time (no self-harm group). Eighty-seven participants (55% female, 45% male) reported engaging in only low-level self-harm behaviors within the past 3 years and were assigned to the low self-harm group. Fifty-five participants (38% female) reported that they had engaged in more injurious self-harm behaviors within the past 3 years and were assigned to the high self-harm group. By group definition, low self-harm participants did not report any more injurious self-harm behaviors; however, 50 (91%) participants from the high self-harm group also endorsed a history of low-level self-harm behaviors. It should be emphasized, however, that even
though these high self-harm participants endorsed history of some low-level self-harm behaviors, they were not included in the low self-harm group because of their reported histories of more injurious self-harm behaviors as well.

The total sample was 55% female and had a mean age of 20.12 (SD = 3.26). Seventy-two percent of the total sample were single and not in a committed relationship, and 85% were Caucasian. There were no statistically significant differences in the proportion of men to women for either self-harm group. The no self-harm group had a significantly greater number of women than men, t(73) = 2.92, p = .005, with women composing 66% of the group.

**Measures**

Self-harm. The Self-Harm Information Form (SHIF), developed for the present study, was administered to all participants. The SHIF is based in part on the Self-Harm Behavior Survey (Pavazza & Conterio, 1989) and the Self-Injury Survey (Zlotnick et al., 1996). It includes questions about specific self-harm behaviors, as well as other potentially maladaptive behaviors. Questions regarding history of self-harm behaviors were presented in the first two pages, with items listed roughly in order of injuriousness, from least to most injurious. Instructions for this section read as follows: “Indicate whether you have ever done any of the following behaviors. If yes, answer the questions that follow.” Follow-up questions for each item asked participants to rate the number of times they had engaged in the behavior (in the past 3 months and over their lifetimes), the ages at which they first and last engaged in the behavior, and the emotional response they experienced when thinking about having engaged in the behavior; responses were rated on a scale ranging from 1 (very ashamed) to 5 (very proud). Low self-harm behaviors assessed are listed in Table 1; high self-harm behaviors assessed are listed in Table 2. Participants were then asked to indicate whether they had engaged in 17 other maladaptive behaviors (e.g., compulsive buying, disordered eating behaviors, rage attacks, physical threats or assaults, reckless driving, personally risky behaviors such as having unprotected sex or traveling alone to dangerous areas, theft, fire setting, gambling with large losses, and suicide attempts). These questions used the same format as the self-harm questions.

More detailed information about specific self-harm episodes, precursors to episodes, and feelings about having engaged in self-harm was desired. However, for participants endorsing several different types of self-harm, it was considered burdensome to be asked to report a number of specific details for each type of self-harm. Thus, for participants who reported a history of self-harm, a target behavior that was the most injurious and recent for them was identified. These participants then responded to detailed questions about that specific type of self-harm only. The procedure for selecting the target behavior is described in the Procedures section.

Test–retest reliability data on the SHIF were available from 39 participants from a separate predominantly Hispanic student sample who completed the SHIF on two occasions, 2 to 3 weeks apart. Results indicated that the SHIF can be used reliably to identify individuals who self-harm versus those who do not (φ = .94, p < .001). Also, the number of self-harming behaviors endorsed by participants on the first and second administration were highly correlated (r = .84, p < .001; Croyle & Waltz, 2007).

**Childhood abuse, family disruption, and illness.** A modified version of the Traumatic Events Survey (TES; Elliott, 1992) was used as a measure of traumatic history. The TES is composed of items inquiring about the participant’s experience of a range of traumas as a child and as an adult. In this study, only experiences that have been identified as or hypothesized to be related to self-harm were administered, including assessment of history of childhood sexual, emotional or physical abuse, as well as family disruption (complete or partial loss of a caregiver as a child through death, divorce, or illness).

Three items on illness experience as a child were added to the TES, as childhood illness has been hypothesized to be related to adult self-harm (Walsh & Rosen, 1988). These items were integrated into the TES format, including follow-up ratings on each item regarding age of the participant when it occurred and ratings of how upsetting the event was at the time and now retrospectively. The additional items read as follows: “Before you were 18, did you have a life-threatening illness (like a heart attack or cancer)?” “Before you were 18, did you have a chronic illness (like asthma or diabetes)?” and “Before you were 18, did you have major surgery (not including having your tonsils or appendix removed)?”

### Table 1

**Frequency of Mildly Injurious Self-Harm Behaviors Endorsed and Selected as Target Behaviors in Low Self-Harm and High Self-Harm Groups**

<table>
<thead>
<tr>
<th>Mildly injurious self-harm behaviors</th>
<th>Low self-harm group</th>
<th>High self-harm group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency (%)</td>
<td>Target behavior</td>
</tr>
<tr>
<td>Stuck yourself with pins, needles, etc., on purpose and NOT drawn blood</td>
<td>12 (14)</td>
<td>0</td>
</tr>
<tr>
<td>Interfered with the healing of a wound (e.g., by repeatedly pulling off scabs)</td>
<td>73 (84)</td>
<td>45</td>
</tr>
<tr>
<td>Bitten your fingernails enough to cause bleeding or pain</td>
<td>34 (39)</td>
<td>21</td>
</tr>
<tr>
<td>Scratched your skin severely enough to cause bleeding or scarring</td>
<td>11 (13)</td>
<td>6</td>
</tr>
<tr>
<td>Picked at your skin severely enough to cause bleeding or scarring</td>
<td>16 (18)</td>
<td>13</td>
</tr>
<tr>
<td>Pulled out large amounts of hair</td>
<td>2 (3)</td>
<td>2</td>
</tr>
</tbody>
</table>

**Note.** Low self-harm group n = 87; high self-harm group n = 55. Each participant was assigned one target behavior to rate. The target behavior selected was generally the most recent, most severe behavior endorsed. The Target behavior column lists the number of participants in the low self-harm group who were assigned each mildly injurious self-harm behavior as a target behavior.
The primary strength of the TES is that it defines each trauma in behavioral terms. This helps to avoid participants' interpreting their experiences in more general terms such as sexual abuse in different ways. The TES score was divided into five subscales for this study: Sexual Abuse, Emotional Abuse, Physical Abuse, Family Disruption, and Illness Experience. In scoring the TES for this study, we assigned all traumatic experiences 1 point. We computed subscale totals by summing the relevant traumatic experiences endorsed. The TES appears to be a valid measure of exposure to potentially traumatic events and has been used in several published studies of the impact of trauma (see Briere, 1997, for a detailed review of the TES).

The criterion for emotional abuse in this study was liberal to include any possibly significant events. As emotional abuse scores were used only in group comparisons with the full range of scores considered (i.e., the number of abusive behaviors endorsed was noted for each person), a liberal definition was considered appropriate. Specifically, two TES items describing 10 emotionally abusive behaviors each from parental figures (e.g., “How often did your mother make you feel like a bad person in the average year?”) were coded positive for emotional abuse if the participant reported that the behavior occurred twice or more in the average year. Additionally four items that asked about feeling loved or cared about as a child were coded positive for emotional abuse if the participant reported being less than fairly certain that he or she was cared about or loved.

Affect and life satisfaction. Three measures were included to assess negative and positive affect and general life satisfaction. The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) consists of two 10-item mood scales, one comprising positive mood adjectives (PA scale) and one comprising negative mood adjectives (NA scale). The adjectives are rated according to a 5-point scale depending on how often the respondent has felt that way during a specified time period. For this study, instructions were to rate how often participants “generally” felt each emotion listed. The PANAS has excellent psychometric properties, with a Cronbach’s alpha of .88 for the PA scale and .87 for the NA scale and test–retest correlations over an 8-week delay of .68 to .71 for the PA and NA scales, respectively (Watson et al., 1988).

To assess feelings of shame more specifically, we added six negative adjectives from the Personal Feelings Questionnaire (self-conscious, stupid, deserving of criticism, helpless/paralyzed, embarrassed, and regretful; Harder & Lewis, 1987) to the PANAS. These items are easily integrated into the PANAS format and have been successfully used to predict self-harm in a population of patients with borderline personality disorder (Brown, Levensky, & Linehan, 1997).

The State-Trait Anger Expression Inventory (STAXI; Spielberger, 1988) was included to assess anger more specifically. The STAXI is a 44-item questionnaire with subscales of State-Anger, Trait-Anger (split into Anger Temperament and Anger Reaction), Anger In, and Anger Control. As State-Anger has not been identified as an important factor in retrospective ratings of self-harm, the 10 items on this subscale were excluded. The STAXI has been shown to have very good reliability and validity among a range of both clinical and nonclinical groups (Spielberger, 1988).

Finally, the General Life section of the Extended Satisfaction With Life Scale (ESWLS; Alfonso, 1995) was included as a global measure of life satisfaction. The ESWLS is a multidimensional general life satisfaction scale that taps nine life domains. Data on the ESWLS as a whole indicate that it is both internally consistent (with alphas ranging from .81 to .96 for the nine subscales) and stable at a 2-week retest (rs = .74 – .87 for the nine subscales).

Emotional processing. The 30-item Trait Meta-Mood Scale (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995), was included as a measure of emotional processing. It has a strong three-factor structure with high internal consistency (with alphas ranging from 0.82 to 0.88). The three factors include the degree of attention that individuals devote to their feelings (Attention), the clarity of their experience of their feelings (Clarity), and their beliefs about terminating negative mood states or prolonging positive ones (Repair).

### Table 2

<table>
<thead>
<tr>
<th>Moderately injurious self-harm behaviors</th>
<th>Frequency (%)</th>
<th>Target behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punched or hit yourself to the point of bruising or more</td>
<td>16 (29)</td>
<td>8</td>
</tr>
<tr>
<td>Banged your head, arms, or legs on purpose to the point of bruising</td>
<td>12 (22)</td>
<td>8</td>
</tr>
<tr>
<td>Stuck yourself with pins, needles, etc., on purpose and drawn blood</td>
<td>23 (42)</td>
<td>3</td>
</tr>
<tr>
<td>Burned yourself on purpose</td>
<td>21 (38)</td>
<td>12</td>
</tr>
<tr>
<td>Carved words or symbols on your skin</td>
<td>17 (31)</td>
<td>4</td>
</tr>
<tr>
<td>Cut your wrists (not trying to die)</td>
<td>8 (15)</td>
<td>1</td>
</tr>
<tr>
<td>Cut other areas of your body (not trying to die)</td>
<td>21 (38)</td>
<td>13</td>
</tr>
<tr>
<td>Swallowed harmful objects (not drugs)</td>
<td>0 (0)</td>
<td>0</td>
</tr>
<tr>
<td>Taken drugs for the purpose of harming yourself (not to get high or die)</td>
<td>6 (11)</td>
<td>5</td>
</tr>
<tr>
<td>Broken your bones on purpose</td>
<td>0 (0)</td>
<td>0</td>
</tr>
<tr>
<td>Strangled yourself (not trying to die)</td>
<td>4 (7)</td>
<td>1</td>
</tr>
</tbody>
</table>

*Note. N = 55. Each participant was assigned one target behavior to rate. The target behavior selected was generally the most recent, most severe behavior endorsed. According to group definitions, only the high self-harm group endorsed any moderately injurious self-harm behaviors. The Target behavior column lists the number of participants who were assigned each item as a target behavior.*
Somatic symptoms. The Pennebaker Inventory of Limbic Lan-
guidness (PILL; Pennebaker, 1982) is a 54-item self-report scale of
common physical symptoms and sensations. Strong internal con-
sistency and test–retest stability over a 2-month period have been
reported (Pennebaker, 1982).

Characteristics of body image concern or devaluation. The
Physical Appearance State and Trait Anxiety Scale, Trait version
(PASTAS; Reed, Thompson, Brannick, & Sacco, 1991) was used
to tap concerns about physical appearance, in addition to questions
integrated into the SHIF assessing reported incidence of disordered
eating behaviors. The PASTAS is a 16-item self-report measure.
For the purposes of this study, three additional items were added
to assess anxiety regarding three common targets of low-level
self-harm: the skin, hair, and nose. In undergraduate samples, the
PASTAS has been shown to be internally consistent and stable
over a 2-week period (Reed et al., 1991; Thompson, 1995).

Difficulty with impulse control. Difficulties with impulse con-
trol were assessed with (a) impulsive behaviors integrated into the
SHIF and (b) the Padua Inventory—Revised (PI-R; van Oppen,
Hoekstra, & Emmelkamp, 1995). The PI-R (Sanavio, 1988) is a
self-report measure of common obsessional and compulsive be-
behavior. The PI-R includes the 41 items from the Padua Inventory
that both distinguished between obsessive–compulsive patients,
patients with other anxiety disorders, and nonclinical individuals,
and maintained high loadings on their corresponding factor (e.g.,
impulses, washing, checking, rumination, or precision). Internal
consistency of the PI-R in normal Dutch participants is excellent
(α = 0.92; van Oppen, Hoekstra, & Emmelkamp, 1995). Test–
retest stability for the original 60-item Padua Inventory was good
in a sample of Italian students (Sanavio, 1988).

Procedure

The study was approved by the university’s institutional review
board. Participants were recruited from an introductory psychol-
ogy participant pool. Informed consent was obtained prior to
participation; no participant reported distress as a result of partici-
pating in the study. Questionnaires were completed by partici-
pants in private rooms, with the self-harm questionnaire completed
last to minimize any impact of distress regarding self-harm on
other measures.

Participants who reported having engaged in self-harm on the
SHIF then met briefly with a researcher to select a specific en-
dorsed self-harm behavior to use as the target behavior. The target
behavior was generally the most injurious and most recent self-
harm behavior endorsed. To choose the target behavior, the re-
searcher examined the pattern of endorsements on page 2 of the
SHIF (the more severely injurious self-harm items) and selected
the most recent self-harm behavior reported. If no items were
endorsed on page 2, then page 1 was examined (the more mildly
injurious self-harm items). The target behavior was selected in
such a way as to mask responses to preserve participant confiden-
tiality and anonymity as much as possible. Specifically, all infor-
mation on the page, including the self-harm items endorsed, was
covered with a shield before being viewed by the researcher, with
the exception of the portions necessary to determine which en-
dorsements were the most recent behaviors (i.e., areas in which the
participants responded to the “Age I last did this” and “Approx-
imately how many times in the past 3 months” prompts).

Results

We calculated means and standard deviations for all scales to
characterize each of the self-harm groups.

To examine group differences on each scale, we performed a
multivariate analysis of variance (MANOVA), with groups as the
independent variable and scales entered into the analyses accord-
ing to their hypothesized strength of association. Post hoc power
analyses were conducted using SPSS, which indicated that all
MANOVAs had adequate-to-excellent power (0.82 for childhood
abuse, 0.86 for affect and life satisfaction, and 1.0 for body image
concerns), with the exception of the MANOVA focused on emo-
tional processing, in which power was questionable at .65.

When MANOVA results indicated that significant differences
existed between the groups, we calculated Roy–Bargman step-
down analyses (Tabachnick & Fidell, 1996) and post hoc Scheffe’
tests to determine more specifically which variables showed sig-
ificant between-groups differences and, on those variables, which
groups were notably different. Because of the potential for the
most important theoretical variables to be correlated, the Roy–
Bargman stepdown analysis was selected in an effort to control for
the problems that arise when using univariate F tests to analyze
between-groups differences for correlated dependent variables.
Cell sizes vary slightly because of invalid responses or missing
data. All tests of significance were two-tailed with an alpha level
of .05. Assumptions of normality, homogeneity of variance–
covariance matrices, linearity, and multicollinearity were met.

Incidence of Self-Harm

Behaviors. A variety of low- and high-level self-harm behav-
iors were endorsed by participants, as summarized in Tables 1 and
2. One hundred-ninety participants (68%) endorsed some history
of low self-harm behaviors, although only 87 (31%) met criteria
for inclusion in the low self-harm group (i.e., no history of more
injurious self-harm and last self-harm incident within the past 3
years). The most frequently endorsed recent low self-harm behav-
iors for the low self-harm group were interfering with wound
healing, fingernail biting, and picking at skin. Ninety-eight partici-
pants (35%) endorsed some history of high self-harm behaviors,
with 55 (20%) reporting high self-harm within the past 3 years.
The most frequently endorsed high self-harm behaviors for recent
self-harm were sticking with pins or needles on purpose, cutting
areas of the body besides the wrists, and burning.

The target behavior was chosen from the self-harm behaviors
endorsed and was typically the most recent, most injurious behav-
ior endorsed. Tables 1 and 2 include a summary of the number of
participants that were assigned each given self-harm behavior as a
target behavior. Participants in the low self-harm group reported
that they had performed their target behaviors over their lifetimes
from 1 to 100,000 times (mode = 10, Mdn = 20, data missing
for 13 participants). Fifty-seven participants from this group (66%)
reported that they had performed their target behaviors at least
once during the past 3 months, with ranges of incidents from 1 to
1,000 times (data missing for 8 participants). Although very high
reports of lifetime and recent incidents may at first glance seem
questionable, these reports are certainly likely in some cases. For
example, in an individual who repetitively engages in skin picking,
if each site of picking is tallied, it may not be unusual for certain
individuals to exceed 50 individual sites in one episode of skin picking.

Participants in the high self-harm group reported that they had performed their target behaviors over their lifetimes from 1 to 60 times (mode = 1, Mdn = 3, data missing for 2 participants). Ten participants from this group (19%) reported that they had performed their target behaviors during the past 3 months once, with the remaining 44 (80%) participants reporting no high-level self-harm over the past 3 months (data missing for 1 participant). In spite of encouraging participants to provide numerical estimates for the number of times behaviors occurred, many still responded “a few” or “lots”; as these responses were impossible to quantify, they were categorized as missing.

Age of onset. Participants from the low self-harm group indicated that they typically began their target behavior in childhood: 24% at age 5 and 16% at age 10 (age of first self-harm incident ranged from 1 to 26 years). Participants from the high self-harm group indicated that they typically began their target behavior in adolescence: 13% at age 15, 24% at age 16, and 15% at age 18 (age of first self-harm incident ranged from 5 to 20 years).

Feelings about self-harm. Participants who reported self-harm were specifically queried about their feelings about self-harm. They were asked “In general, when you think about the fact that you have done the target behavior, how do you feel?” and given adjectives to rate on a scale ranging from 0 to 4 (0 = not at all, 2 = moderate, 4 = extreme). Ratings for shame, anger, sadness, anxiety, and numb feelings were averaged yielding one negative affect score ranging from 0 to 4. For the low self-harm group (n = 87), mean negative affect score was 0.22 (SD = 0.43). For the high self-harm group (n = 55), mean negative affect score was 0.62 (SD = 0.86). It is doubtful that the level of negative affect reported by these participants represents a clinically relevant level of distress. This is particularly true for the low self-harm group, for which a mean score of 0.22 represents a “mild” rating. A score of 2 or above, which represents a rating of “moderate” for a negative affect adjective, would appear more clinically relevant. A notable subgroup of participants reported this level of distress, with 17 (20%) of the low self-harm group and 25 (45%) of the high self-harm group endorsing a rating of two or more on at least one of the negative adjectives.

Childhood Abuse, Family Disruption, and Illness

Thirty-two (43%) participants from the no self-harm group, 39 (45%) participants from the low self-harm group, and 31 (56%) participants from the high self-harm group reported some history of sexual abuse, including events ranging from inappropriate sexual comments from friends and family to being forced to have sex for money. Sixty-eight (92%) participants from the no self-harm group, 83 (95%) participants from the low self-harm group, and 54 (98%) participants from the high self-harm group reported some history of emotional abuse; and 26 (35%) participants from the no self-harm group, 23 (26%) participants from the low self-harm group, and 18 (33%) participants from the high self-harm group reported a history of experiencing or witnessing physical abuse.

We examined group differences on traumatic history by entering TES subscales into a MANOVA in the following order: sexual abuse, emotional abuse, physical abuse, family disruption, and illness experience. Results revealed significant group differences, $F(10, 416) = 1.95, p = .038$, partial $\eta^2 = .04$. However step-down analysis identified only a significant unique contribution from the Emotional Abuse subscale, $F(2, 211) = 3.12, p = .046$, with Scheffé test results indicating significant group differences between the no self-harm group and the high self-harm group only; $M_{diff} = -2.55$, SE = 0.92, $p = .022$ (see Table 3).

Affect and Life Satisfaction

To examine differences between groups on overall positive and negative affect and satisfaction with life, we entered the ESWLS, the PANAS, and additional items measuring shame into a MANOVA in order of their hypothesized strength of relationship with self-harm, resulting in the following order: shame, negative affect, positive affect, and ESWLS. Shame and, more generally, negative affect, have been closely tied to clinical levels of self-harm by previous researchers (Favazza, 1988; Herpertz, 1995; Linehan, 1993). Reduction of positive affect and reduced quality of life are hypothesized to also be related but have not been specifically identified by previous researchers and are likely of less importance in their association with self-harm. Significant group differences were found, $F(8, 420) = 2.19, p = .027$ (n = 216), partial $\eta^2 = .04$ (see Table 3).

Stepdown analysis indicated that only the Shame scale provided a significant unique contribution, $F(2, 213) = 5.10, p = .007$. A post hoc Scheffé test indicated that the no self-harm group reported significantly less shame than the low self-harm group ($M_{diff} = -1.57$, SE = 0.60, $p = .036$) and the high self-harm group ($M_{diff} = -1.95$, SE = 0.68, $p = .017$).

We examined group differences in anger on the STAXI subscales and items from the SHIF tapping behaviors commonly associated with anger (rage attacks/temper tantrums, hitting others, and physically threatening others). These variables were entered into a MANOVA in the following order: SHIF Anger behaviors, Anger Reaction, Anger Temperament, Anger In, Anger Out, and Anger Control. The MANOVA (n = 216) was not significant, $F(12, 416) = 1.48, p = .128$ (see Table 3).

Emotional Processing

Emotional processing was evaluated with the three Trait Meta-Mood Scale subscales (see Table 3), entered into a MANOVA in the following order: Repair, Clarity, and Attention. Although there is little foundational research to suggest which theoretical order these scales should be entered in, it was hypothesized that Repair would be most important of the three because of its negative association with beliefs about negative mood regulation (Salovey et al., 1995) and the hypothesized tie between negative mood management and self-harm (e.g., Favazza, 1987). However, the MANOVA was nonsignificant, $F(6, 420) = 1.73, p = .113$, partial $\eta^2 = .024$ (n = 215).

Somatic Symptoms

Group differences on report of somatic symptoms were examined using a one-way analysis of variance (ANOVA). Results revealed a significant difference on PILL scores between the three groups, $F(2, 213) = 8.56, p < .001$, $n = 216$, with a significant difference between the no self-harm group and both the low
Characteristics of Body Image Concern or Devaluation

It was hypothesized that self-harm would be associated with evidence of a disturbed or distorted relationship with the body, as evidenced by a higher incidence of disordered eating behaviors and anxiety about physical appearance. To test this hypothesis, we performed a MANOVA on the PASTAS total score, with items on the SHIF (e.g., binging, restricting, purging, using laxatives and/or diuretics, and exercising to exhaustion) entered first and the PASTAS entered second (see Table 3). The MANOVA was significant, $F(4, 424) = 8.50, p < .001$, partial $\eta^2 = .074 (n = 216)$. Stepdown analysis identified only the SHIF Disordered Eating Scale as significant, $F(2, 213) = 17.42, p < .001$. A post hoc comparison of group mean differences for the Disordered Eating Scale indicated that the high self-harm group was significantly different than both the no self-harm group ($M_{\text{diff}} = 1.21, SE = 0.21, p < .001$) and the low self-harm group ($M_{\text{diff}} = 0.78, SE = 0.20, p = .001$). Only 7 participants (13%) of the high self-harm

Table 3
Differences Between Groups on Hypothesized Correlates of Self-Harm

<table>
<thead>
<tr>
<th>Scale</th>
<th>No self-harm ($n = 74$)</th>
<th>Low self-harm ($n = 87$)</th>
<th>High self-harm ($n = 55$)</th>
<th>Group differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Childhood abuse, family disruption, and illness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual Abuse</td>
<td>6.63 (0.84)</td>
<td>6.64 (0.85)</td>
<td>6.93 (1.07)</td>
<td>ns</td>
</tr>
<tr>
<td>Emotional Abuse</td>
<td>31.12 (4.85)</td>
<td>31.90 (5.21)</td>
<td>33.67 (5.38)</td>
<td>1 &lt; 3</td>
</tr>
<tr>
<td>Physical Abuse</td>
<td>2.51 (0.75)</td>
<td>2.32 (0.58)</td>
<td>2.47 (0.74)</td>
<td>ns</td>
</tr>
<tr>
<td>Family Disruption</td>
<td>9.12 (1.40)</td>
<td>8.72 (1.40)</td>
<td>8.84 (1.33)</td>
<td>ns</td>
</tr>
<tr>
<td>Illness Experience</td>
<td>3.27 (0.56)</td>
<td>3.36 (0.59)</td>
<td>3.35 (0.55)</td>
<td>ns</td>
</tr>
<tr>
<td>Affect, life satisfaction, emotional processing, and somatic symptoms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PANAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Affect</td>
<td>35.89 (5.21)</td>
<td>35.14 (5.57)</td>
<td>35.49 (6.43)</td>
<td>ns</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>20.68 (6.20)</td>
<td>22.13 (6.62)</td>
<td>23.69 (6.08)</td>
<td>ns</td>
</tr>
<tr>
<td>Added Shame items</td>
<td>12.45 (3.55)</td>
<td>14.01 (4.07)</td>
<td>14.40 (3.74)</td>
<td>1 &lt; 2 &amp; 3</td>
</tr>
<tr>
<td>ESWLS-GL</td>
<td>26.11 (5.81)</td>
<td>24.84 (5.73)</td>
<td>22.91 (7.08)</td>
<td>ns</td>
</tr>
<tr>
<td>SHIF Anger items</td>
<td>3.64 (0.92)</td>
<td>3.88 (0.99)</td>
<td>4.27 (1.13)</td>
<td>ns</td>
</tr>
<tr>
<td>STAXI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anger Out</td>
<td>14.77 (2.90)</td>
<td>14.98 (2.99)</td>
<td>15.45 (3.24)</td>
<td>ns</td>
</tr>
<tr>
<td>Anger In</td>
<td>15.50 (4.05)</td>
<td>16.41 (4.12)</td>
<td>16.69 (4.25)</td>
<td>ns</td>
</tr>
<tr>
<td>Anger Control</td>
<td>25.42 (4.32)</td>
<td>25.59 (4.17)</td>
<td>25.02 (3.84)</td>
<td>ns</td>
</tr>
<tr>
<td>Anger Temperament</td>
<td>5.95 (2.03)</td>
<td>5.87 (2.11)</td>
<td>6.24 (1.83)</td>
<td>ns</td>
</tr>
<tr>
<td>Anger Reaction</td>
<td>11.12 (3.06)</td>
<td>11.92 (2.87)</td>
<td>12.05 (2.98)</td>
<td>ns</td>
</tr>
<tr>
<td>TMMS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clarity</td>
<td>39.67 (6.74)</td>
<td>36.67 (7.37)</td>
<td>37.01 (8.30)</td>
<td>ns</td>
</tr>
<tr>
<td>Repair</td>
<td>23.44 (3.84)</td>
<td>22.25 (4.54)</td>
<td>22.03 (5.48)</td>
<td>ns</td>
</tr>
<tr>
<td>Attention</td>
<td>50.64 (7.30)</td>
<td>50.72 (7.59)</td>
<td>51.56 (9.10)</td>
<td>ns</td>
</tr>
<tr>
<td>PILL</td>
<td>13.99 (8.50)</td>
<td>19.32 (9.08)</td>
<td>19.18 (9.15)</td>
<td>1 &lt; 2 &amp; 3</td>
</tr>
<tr>
<td>Body image devaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHIF Disordered Eating Scale</td>
<td>5.78 (1.09)</td>
<td>6.22 (1.15)</td>
<td>6.99 (1.24)</td>
<td>1 &amp; 2 &lt; 3</td>
</tr>
<tr>
<td>PASTAS</td>
<td>17.53 (12.89)</td>
<td>19.75 (12.01)</td>
<td>20.27 (13.33)</td>
<td>ns</td>
</tr>
<tr>
<td>Impulse control and compulsivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHIF Impulsive items</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impulses</td>
<td>19.35 (2.22)</td>
<td>20.40 (2.39)</td>
<td>22.81 (2.47)</td>
<td>1 &lt; 2 &lt; 3</td>
</tr>
<tr>
<td>PI-R</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impulses</td>
<td>2.24 (3.58)</td>
<td>3.06 (3.13)</td>
<td>5.07 (4.45)</td>
<td>1 &amp; 2 &lt; 3</td>
</tr>
<tr>
<td>Ruminations</td>
<td>7.65 (5.92)</td>
<td>10.42 (7.06)</td>
<td>12.82 (7.06)</td>
<td>1 &lt; 2 &lt; 3</td>
</tr>
<tr>
<td>Precision</td>
<td>1.95 (2.79)</td>
<td>3.64 (4.13)</td>
<td>3.25 (3.18)</td>
<td>1 &lt; 2 &lt; 3</td>
</tr>
<tr>
<td>Checking</td>
<td>2.70 (3.46)</td>
<td>4.32 (4.26)</td>
<td>4.48 (3.95)</td>
<td>ns</td>
</tr>
<tr>
<td>Washing</td>
<td>3.85 (5.57)</td>
<td>4.79 (5.67)</td>
<td>5.37 (6.42)</td>
<td>ns</td>
</tr>
</tbody>
</table>

Note. TES = Traumatic Events Survey; PANAS = Positive and Negative Affect Schedule; ESWLS-GL = Extended Satisfaction With Life Scale—General Life section; SHIF = Self-Harm Information Form; STAXI = State-Trait Anger Expression Inventory; TMMS = Trait Meta-Mood Scale; PILL = Pennebaker Inventory of Limbic Languidness; PASTAS = Physical Appearance State-Trait Anxiety Scale; PI-R = Padua Inventory—Revised; ns = nonsignificant.

self-harm group ($M_{\text{diff}} = 5.34, SE = 1.41, p = .001$) and the high self-harm group ($M_{\text{diff}} = 5.20, SE = 1.59, p = .005$; see Table 3).
group endorsed no disordered eating behaviors, now or in the past, in comparison with 42 (57%) of the no self-harm group and 25 (29%) of the low self-harm group.

**Difficulty With Impulse Control**

It was hypothesized that participants who reported engaging in self-harm would also endorse other impulsive behaviors and compulsive characteristics to a greater extent than participants who did not report engaging in self-harm. A one-way ANOVA on the sum of the 17 impulsive behaviors endorsed on the SHIF revealed a significant difference among the three groups, $F(2, 213) = 34.98$, $p < .001$, $n = 216$; see Table 3). Post hoc multiple comparisons demonstrated significant differences between all three groups: no self-harm group versus low self-harm group, $M_{diff} = -1.05$, $SE = 0.37$, $p = .020$; no self-harm group versus high self-harm group, $M_{diff} = -3.46$, $SE = 0.42$, $p < .001$; low self-harm group versus high self-harm group, $M_{diff} = -2.41$, $SE = 0.41$, $p < .001$.

We evaluated compulsive characteristics with the PI-R subscales (see Table 3) entered into a MANOVA in the following order: Impulses, Rumination, Precision, Checking, and Washing. The analysis was significant, $F(10, 418) = 3.67$, $p = .001$, $n = 216$. Stepdown analysis revealed significant unique contributions from Impulses, $F(2, 213) = 9.76$, $p < .001$; Rumination, $F(2, 212) = 3.31$, $p = .038$; and Precision, $F(2, 211) = 4.56$, $p = .012$. For the Impulses subscale, a Scheffé test indicated that the high self-harm group differed significantly from the no self-harm group, $M_{diff} = 2.83$, $SE = 0.65$, $p < .001$; and from the low self-harm group ($M_{diff} = 2.01$, $SE = 0.63$, $p = .007$). On the Rumination subscale, the no self-harm group differed significantly from both the low self-harm group ($M_{diff} = -2.77$, $SE = 1.06$, $p = .034$) and from the high self-harm group ($M_{diff} = -5.17$, $SE = 1.19$, $p < .001$). On the Precision subscale, only the no self-harm group and the low self-harm group differed significantly ($M_{diff} = -1.68$, $SE = 0.55$, $p = .010$).

**Discussion**

Results of this study indicate that a history of subclinical self-harm is common among college students. Although it is not typically associated with serious subjective distress, it is associated with other maladaptive behaviors, including other impulsive behaviors, somatic symptoms, and some obsessive–compulsive characteristics. Similarities between results from this study and characteristics that have been associated with clinical levels of self-harm suggest that, in some respects, self-harm may occur along a continuum from subclinical to clinical levels of severity.

**Mildly and Moderately Injurious Self-Harm**

In this sample of undergraduate students, 68% of the total sample reported that they had engaged in some type of mildly injurious self-harm over their lifetimes, including behaviors such as skin picking, fingernail biting, and interfering with wound healing. In a statistical sense, a history of self-harm appears to be normative in an undergraduate population. Comments from study participants support this assertion. Many participants expressed surprise that they were asked so many questions about their self-harm behaviors, saying “I only bite my fingernails” or “I just pick at my scabs . . . doesn’t everyone?” implying that they saw their self-harm behaviors as common and relatively meaningless; however, results indicate that a subgroup of participants (20% of participants in the low self-harm group) experience at least moderate levels of negative affect in regard to their self-harm behaviors, suggesting that these behaviors should not be so easily discounted.

Although mildly injurious self-harm does not result in subjective distress for most individuals who engage in it, it does appear to be associated with other maladaptive behaviors. In this study, recent or ongoing mildly injurious self-harm was associated with a history of other impulsive behaviors, more general obsessive–compulsive type rumination and precision, and more somatic symptoms. It is interesting to note that Teng and colleagues (2002) also found a relationship between more reported physical symptoms and body-focused repetitive behaviors.

In regard to moderately injurious self-harm, a striking 35% of the sample reported at least one incident of moderately injurious self-harm, from punching themselves to cutting or burning themselves, to strangling themselves. Many of these incidents were in the fairly distant past. However, a number of participants also reported fairly recent moderately injurious self-harm; 20% of the sample reported moderately injurious self-harm within the past 3 years, and 5% reported moderately injurious self-harm within the past 3 months. These data are consistent with those of Gratz, Conrad, and Roeser (2002), who reported that 38% of their undergraduate sample reported a history of moderately injurious self-harm. However, other studies of general population samples including undergraduates have found much lower rates of self-harm, ranging from 4% (Klonsky, Oltmanns, & Turkheimer, 2003) to between 8% and 12% (Fava & Conterio, 1989; Fava & DeRosaar, 1989).

Results of this study suggest that moderately injurious self-harm was not occurring at a clinically significant level for the majority of participants. For example, moderately injurious self-harm was not generally habitual (42% reported only one or two incidents in their lifetimes). Additionally, in many cases it did not trigger a significant negative emotional reaction, although a notable subgroup (45%) did report moderate to high levels of negative emotional response to their histories of self-harm. However, despite often not representing a clinically significant behavior, moderately injurious self-harm was associated with a number of potentially concerning characteristics including more somatic symptoms, more impulsivity, some characteristics of obsessive–compulsive disorder (e.g., impulses and rumination), more disordered eating behaviors, higher levels of general shame (although not more negative affect in general), and a history of emotional abuse.

**Gender Differences in Rates of Self-Harm**

One surprising finding from this study is that there was no significant difference between the number of male and female participants who reported self-harm at either mildly or moderately injurious levels. This is in contrast to literature focused on clinical levels of self-harm which typically reports a high proportion of women (e.g., Herpertz, 1995). The absence of this gender difference in this study may indicate that, whereas clinical self-harm is much more common among women, subclinical self-harm is equally common among men and women. This suggests that...
further research should more closely examine the relationship between gender and self-harm at both subclinical and clinical levels to determine what gender-related factors lead to risk for more serious levels of self-harm.

The lack of gender differences in this study may also reflect an actual lack of gender difference in rates across types of self-harm, suggesting that there may be a sampling bias in the clinical self-harm literature that preferentially includes women as participants (e.g., by sampling inpatient populations rather than prison populations). Congruent with this hypothesis, studies that have focused more on obtaining community samples have found more parity between men and women in both self-harm and suicide attempts (Garrison et al., 1993; Gratz et al., 2002; Platt et al., 1992).

A Self-Harm Continuum?

Shared characteristics. An interesting question is whether self-harm exists on a continuum ranging from mildly injurious, subclinical behaviors to moderately and severely injurious clinical behaviors or whether these distinctions represent distinct phenomena (see Linehan, 1986, 1993; and Stanley, Gamaroff, Michalsen, & Mann, 2001, for related discussions). In support of a hypothesized self-harm continuum, 91% of the group with more injurious self-harm also endorsed mildly injurious self-harm behaviors, suggesting some connection between the two levels of self-harm. In further support of a continuum, there are a number of similarities between findings from the mildly injurious and more injurious clinical self-harm groups in this study, as well as similarities to findings in the clinical self-harm literature. Namely, in all three cases a higher incidence of somatic symptoms and impulsivity are noted (Favazza, DeRosear, & Conterio, 1989; Herpertz, 1995; Zlotnick et al., 1996). Additionally, increased disordered eating behaviors, clearly present to a notable degree in clinical populations who self-harm (Favaro & Santonastasso, 1998, 2000; Favazza, DeRosear, & Conterio, 1989; Walsh & Rosen, 1988), were also apparent in the moderately injurious self-harm group in this study. It is possible that these findings reflect subtle difficulties with emotional processing, with a tendency toward expressing and coping with distress behaviorally or physically, although further research is clearly required to support this interpretation.

Differing characteristics. There are also a number of areas that suggest that self-harm is not on a continuum from less to more severe. Findings from this study did not find associations between subclinical self-harm and history of physical or sexual abuse or pronounced negative affect. In contrast, research on clinical levels of self-harm have identified these factors as important precursors to or features of self-harm (Gratz, 2003). Anger and aggression have also been hypothesized to be important variables in clinical levels of self-harm (Favazza & Simeon, 1995; Menninger, 1938), but notable levels of anger were not found in either self-harm group in this study. Of note, it has been previously suggested that anger does not play an important role in some types of self-harm, such as skin picking (Favazza & Simeon, 1995).

Impulsive and compulsive characteristics. Several researchers have proposed that distinguishing impulsive from compulsive self-harm may be helpful in both conceptualizing and treating self-harm behavior (Favazza & Simeon, 1995; Simeon et al., 1995). This hypothesis both argues against a continuum explanation of self-harm and provides a specific way in which a boundary can be made between types of self-harm. However, findings from this study suggest that a distinction between impulsive and compulsive self-harm may be difficult to make. Mildly injurious self-harm was found to be more habitual according to number of self-harm incidents reported (median number of lifetime incidents of 20 for the mildly injurious group vs. 3 for the moderately injurious group) and reasons given for performing the self-harm (e.g., reasons less associated with specific precipitating events). In contrast, more injurious self-harm was found more likely to be more episodic, with fewer incidents reported and reasons more likely to focus on precipitating internal or external events. However, both mildly and moderately injurious self-harm were associated with obsessive-compulsive characteristics and other impulsive behaviors, although more injurious self-harm was more strongly so. Given these findings, it appears most accurate to say that subclinical self-harm is typically more habitual (rather than compulsive), whereas more injurious self-harm is typically more episodic (rather than impulsive), and that both show impulsive and compulsive features.

Implications for Research

This study has three major implications for further research. First, the definition of types of self-harm clearly requires further examination. In this study, subclinical self-harm was defined as self-harm that occurs within nonclinical populations and is not highly injurious. Group distinctions were made in terms of the injuriousness of the type of self-harm alone. However, it is likely that a relatively small number of individuals more accurately described as engaging in a clinical level of self-harm were included in each group. Namely, it is likely that individuals who experience high levels of emotional distress surrounding their self-harm incidents and engage in self-harm repeatedly were included in this study. The next logical step in this area is to define subclinical versus clinical self-harm using multiple criteria such as injuriousness of the self-harm behavior, distress surrounding self-harm, and repetitiveness of self-harm. Additionally, following the example of Sansone and colleagues and their Self-Harm Inventory (Sansone, Wiederman, & Sansone, 1998), further examining the range of self-harming behaviors would also likely include incorporating investigation of less directly injurious behaviors that are clearly harmful and may be performed to injure oneself, such as reckless driving.

On a broader scale, further pursuit of an understanding of a potential self-harm continuum appears important for understanding all levels of self-harm. As described earlier, it appears that there are a number of areas that overlap between different types and severities of self-harm. However, there are also a number of factors that may be important in distinguishing subclinical self-harm from clinical levels of self-harm; namely, history of child sexual and physical abuse, intense negative affect surrounding the self-harm, and presence of pronounced anger and aggression. If self-harm is truly best described as a continuum, then these factors should be examined in further research, as they may be critical in predicting who is most likely to exhibit clinical self-harm. Longitudinal designs that could examine the development of self-harm over time would be best suited to examine these factors.
Further research focusing on the relationship of gender to self-harm also appears necessary. Although this study did not find differences in reported rates of self-harm between men and women, it is possible that the recruitment method used in this study differentially attracted men versus women according to their interest in the topic of the study so that participants of one gender may have been more interested in the study topic than participants of the other gender. This could potentially have affected the outcome of the study and the representativeness of the sample. Follow-up research should not only assess possible gender differences in rates of subclinical and clinical self-harm and its predictors but also the gender-related mediators and moderators of those relationships. Such research should also take care to recruit from a variety of settings so that men and women who engage in self-harm have an equal chance of being recruited. Limiting research only to mental health settings, and particularly to inpatient settings, appears likely to overrepresent self-harm among women.

Implications for Practice

This study has implications for therapy with patients who are generally functioning well but display mildly to moderately injurious self-harm behaviors that could be most accurately characterized as subclinical. In this case, it is important to be aware that, as this study demonstrates, a history of mildly to moderately injurious self-harm is fairly common in an undergraduate population and is not found only in people with severe functional impairments. In some cases, it is both associated with distressing phenomena (e.g., shame, impulsivity, and disordered eating behaviors) and at the same time is not associated with more severe pathology (e.g., notable negative affect or obsessive–compulsive traits). In some cases, naïve or uninformed clinicians may approach moderately injurious self-harm behaviors as a clear indication of emerging severe pathology, such as a serious eating disorder or borderline personality disorder. In some cases and in some populations, this may indeed be so, but from this study it appears that in a good number of cases, it is probably not so.

Study Limitations

This study has several limitations that could be addressed in further research. First, the operational definitions used for mildly injurious and moderately injurious self-harm clearly require further research, as described earlier under Implications for Research. A second limitation of the study is that all data were self-report and self-harm ratings were retrospective. Although self-report data is subject to bias, it appeared necessary for the topic at hand. Use of alternative techniques, such as interviews, could be considered in future research. However, it is likely that participants who are ashamed of their self-harm behaviors, namely those most severely affected, would be less likely to disclose information in a face-to-face interaction, significantly biasing results. A third limitation is that, as all participants were undergraduate students at a northwestern university, this sample was fairly homogeneous in terms of ethnicity and setting. Replication with a more diverse sample would be beneficial. Finally, as described earlier, a fourth limitation is that the recruitment technique used may have inadvertently resulted in a sample that was not representative of the population in terms of interest in the topics of the study, perhaps differentially affecting the men and women who participated in the study.

Subclinical self-harm at both mildly and moderately injurious levels appears to be a fairly common occurrence among college undergraduates that is typically not directly associated with significant distress or serious pathology, such as significant negative affect. Instead, it appears to be more of a sign of a larger tendency to express and cope with distress more physically or behaviorally, possibly in the context of lower impulse control. This is indicated by an association with more disordered eating behaviors, a higher incidence or greater focus on physical symptoms, and increased impulsive and compulsive behaviors. Subclinical self-harm behaviors may, in some ways, fall on the far end of a self-harm continuum. If this is indeed the case, subclinical self-harm may represent an area of research that could further our understanding and treatment of all levels of self-harm.

References


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