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# Mothers' Awareness of Self-Harm Behaviors in Their Children

Randy A. Sansone, Michael W. Wiederman, and Julia Jackson

This study examined mothers' awareness of seven self-harm behaviors in their adolescents who were being seen in an outpatient psychiatry clinic—namely, cutting self, burning self, hitting self, banging head, scratching self, preventing wounds from healing, attempting suicide. Using a cross-sectional self-report survey method with 71 mother–adolescent pairs, the study found (a) that self-harm behaviors were reported by 63.4% of the adolescent participants, most commonly, preventing wounds from healing and scratching self; (b) that there was a moderate level of concordance

between mother and adolescent with regard to behaviors that were not being performed; (c) that in most cases of discordance, the mother denied a behavior that the adolescent indicated as having actually performed, most commonly, preventing wounds from healing; and (d) that mothers were significantly less likely to acknowledge self-harm behaviors in their adolescents as the number of self-harm behaviors reported by offspring increased ( $r = -.87, p < .001$ ).

**Keywords:** self-harm behavior; suicide attempts; self-injury

Self-harm behavior is becoming increasingly more common among youth (Joe & Marcus, 2003). Indeed, suicide is the third-leading cause of death among adolescents, affecting approximately 3% (Spirito & Esposito-Smythers, 2006). Joe and Marcus (2003) indicate that whereas bona fide rates of completed suicide have recently decreased, suicide attempts have risen, from 7% in 1991 to 9% in 2001. Safer (1997) describes a 3%–4% lifetime prevalence of suicide attempts among adolescents, and Waldrop et al. (2007) recently reported a 3% prevalence among a nationally representative sample of adolescents. In keeping with these preceding data, Tuisku et al. (2006) found that 50% of 218 consecutive adolescent psychiatric outpatients reported suicidal ideation or behavior. To summarize, suicidal ideation and suicide attempts affect a

significant minority of adolescents, with approximately 3% eventually completing suicide.

In addition to suicide attempts and completions, adolescent populations demonstrate a variety of other self-harm behaviors, which may be characterized as *nonlethal*, that is, without a genuine intent to end life. In this regard, Laye-Gindhu and Schonert-Reichl (2005) found that among adolescents in the community, the prevalence of self-harm behavior was 15%. Self-cutting was the most common type of behavior in this sample and was reported by 43% of self-harmers. Other reported behaviors included hitting or biting oneself (26%), abusing pills (16%), engaging in reckless behaviors (5%), and breaking bones, falling, and jumping (3%). Lloyd (1998) also examined the prevalence of nonsuicidal self-harm behavior among adolescents in the community. In her study, 39% of the sample had engaged in some type of self-harm behavior during the preceding year, with the most common behaviors being biting, hitting, and/or cutting oneself. Like previous investigators, Ross (2006) explored the prevalence of self-mutilation in a community sample of adolescents and found that 14% had cut themselves on at least one occasion. Mirroring the findings of these investigators, Lowenstein (2005), in a study in the United

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Kingdom, found that the most common nonsuicidal self-harm behavior among adolescents was that of cutting oneself. Lowenstein also found that nonsuicidal self-harm behavior is oftentimes associated with current or past suicide attempts—a relationship within adolescent populations that has been confirmed by others (Guertin, Lloyd-Richardson, Spirito, Donaldson, & Boergers, 2001; Hawton, Kingsbury, Steinhardt, James, & Fagg, 1999).

The relationship between self-harm behavior and suicide attempts remains an empirically elusive one. First, investigators have explored differences between suicide attempters and those with low-lethal self-harm behaviors, speculating why the two groups may not be related. For example, Muehlenkamp and Gutierrez (2004) found that depression, suicidal ideation, and attitudes toward life separate the two groups. Marusic and Goodwin (2006) found that suicidal ideation is associated with higher scores on emotional coping and lower scores on rational and detachment coping styles, whereas low-lethal self-harm behavior was associated with higher scores on avoidance coping strategies. Finally, regarding self-harmers, McAuliffe, Arensman, Keeley, Corcoran, and Fitzgerald (2007) reported that individuals with high suicide intent were more motivated to escape their situation whereas those with low intent were more motivated to appeal to others and/or obtain a temporary break from their difficulties. However, Axis II psychopathology, such as borderline personality, may encompass suicide attempts as well as low-lethal self-harm behavior.

Whereas the literature indicates relatively high prevalence rates of self-harm behavior among community and clinical samples of adolescents, the role of the adolescent's disclosure of these behaviors has been studied infrequently. Is the disclosure of self-harm behavior by an adolescent clinically relevant? Current data suggest so. For example, Horesh, Zalsman, and Apter (2004) found that low self-disclosure rates are associated with suicidal ideation and suicide attempts. The authors assert that the inability to communicate feelings and thoughts to people close to oneself may be an important risk factor for suicide attempts. In addition, alexithymia (Iancu, Dannon, Poreh, Lepkifker, & Grunhaus, 2001) as well as family dysfunction (Lanpher, 1999; Martin, Rozanes, Pearce, & Allison, 1995) may be mediators in this relationship. In a unique study, Ferdinand, van der Ende, and Verhulst (2004) determined that parent-adolescent discrepancies about adolescents' psychopathological behavior at

Time 1 predicted a poor prognostic outcome at Time 2 (4 years later), with adolescent nondisclosure predicting poor clinical outcome.

Because of the growing prevalence of self-harm behavior in children and adolescents and the limited data on parental awareness, we wished to explore parents' knowledge of their children's self-destructive behavior. In this study, we examined the prevalence of seven self-harm behaviors among adolescents—namely, cutting self, burning self, hitting self, banging head, scratching self, preventing wounds from healing, attempting suicide—as well as their mothers' awareness of these self-harm behaviors.

## Method

### Participants

Participants were pairs of mothers and their adolescent children; the latter were being seen as patients in a child and adolescent outpatient psychiatry clinic. The clinic is located on-site at an air force base in a midsized Midwestern city. Potential participants for this study (mothers and adolescents) were excluded if they evidenced any impairment that would preclude the completion of research surveys, whether medical (e.g., acute viral illness), psychiatric (e.g., manic episode), or cognitive (e.g., intellectual, developmental). Exclusion status was determined by one of the study investigators (J.J.). Participants were recruited as time allowed (i.e., the sample was one of convenience). Of the 75 mother-adolescent pairs approached, 71 agreed to participate, for a response rate of 94.7%.

Among the 71 pairs, mothers ranged in age from 30 to 64 years ( $M = 43.79$ ,  $SD = 7.29$ ). The majority of mothers (83.1%) represented the biological parent of the adolescent. We did not inquire about mothers' educational, racial, and marital status. Mothers were either active duty members or were married to active duty members of the U.S. Air Force (i.e., none were reserve status or retired). Adolescents (28 males, 41 females) ranged in age from 13 to 17 years ( $M = 14.90$ ,  $SD = 1.34$ ). We did not inquire about their racial backgrounds. All were currently enrolled in school.

### Procedure

Each participant was informed that the purpose of the study was to compare the awareness of the presence of seven self-harm behaviors between parents

**Table 1.** Concordance and Discordance Between Adolescent and Mother Reports of Adolescent's Self-Harm Behavior ( $N = 71$ )

Self-Harm Behavior	Adolescent: No Mother: No	Adolescent: No Mother: Yes	Adolescent: Yes Mother: No	Adolescent: Yes Mother: Yes
Cutting self	44	1	8	18
Burning self	57	1	13	0
Hitting self	47	5	16	3
Banging head	46	1	19	5
Scratching self	40	4	16	11
Preventing wounds from healing	40	4	23	4
Attempting suicide	52	2	14	3

and their children. After an explanation of the project, each mother–adolescent pair was given a brief research booklet to complete. Participants were informed that no one, including the on-site investigators and the treatment team, would have access to their responses.

### Measures

Following several demographic queries in both research surveys, mothers and adolescents were asked about the presence of seven self-harm behaviors in the adolescent. Specifically, adolescents were asked if they engaged in any of these behaviors. In turn, mothers were asked if their adolescents engaged in any of these seven behaviors. As mentioned, the self-harm behaviors were as follows: cutting self, burning self, hitting self, banging head, scratching self, preventing wounds from healing (i.e., pick at scabs), attempting suicide. These items were selected because of their observed clinical prevalence in adolescent populations. Participation in the project and completion of the survey were presumed to represent informed consent. The Institutional Review Board of the U.S. Air Force approved this project.

## Results

### Self-Harm Profiles Reported by Adolescents

Among this adolescent sample, self-reported self-harm behaviors were relatively common. Among the seven self-harm behaviors, 26 of the adolescents reported zero behaviors; 7 reported one; 13 reported two; 6 reported three; 5 reported four; 5 reported five; 6 reported six; and 3 reported all seven. In

descending order of prevalence, 38.0% of the sample reported having prevented wounds from healing; 38.0% scratched self; 36.6% cut self; 33.8% banged head; 26.8% hit self; 24.0% attempted suicide; and 18.3% burned self.

### Concordance and Discordance Between Mothers' and Adolescents' Reports of Self-Harm Behavior

Table 1 presents the concordant and discordant results between mother and adolescent reports of the adolescent's self-harm behaviors. The first and fourth columns represent mother–adolescent concordance. In most cases, mother and adolescent agreed in their denial of self-harm behaviors. The second and third columns represent mother–adolescent discordance. Note that discordance was much more likely to involve the mother's denying a self-harm behavior that the adolescent reported having performed it, as compared to the mother's reporting a self-harm behavior that the adolescent denied.

To examine potential relationships between mothers' accuracy regarding adolescent self-harm behavior and other variables, we calculated an overall accuracy score consisting of the total number of self-harm behaviors for which mother and adolescent agreed. If the mother and adolescent agreed in their reports regarding the adolescent's self-harm behavior, one point was added to the overall score. If there was a discrepancy between mother and adolescent for a particular self-harm behavior, no point was added to the overall score. In this way, scores could range from 0 (no agreement between mother and adolescent on any of the seven self-harm behaviors) to 7 (agreement on reports of all seven self-harm behaviors). Actual scores did in fact range from 0 to 7 ( $M = 5.21$ ,  $SD = 1.77$ ).

Accuracy scores did not differ as a function of the adolescent's sex,  $F(1,69) = .04$ ,  $p < .86$ , or whether the mother was the biological parent,  $F(1,69) = .20$ ,  $p < .66$ . Similarly, accuracy scores were unrelated to the mother's age,  $r = -.16$ ,  $p < .20$ , the adolescent's age,  $r = .03$ ,  $p < .79$ , or the number of years that the mother had lived with the adolescent,  $r = .05$ ,  $p < .67$ . The only statistically significant correlate of mothers' accuracy in identifying her adolescent's self-harm behavior was the adolescent's score on the seven-item measure,  $r = -.87$ ,  $p < .001$ . Mothers were least likely to identify their adolescents' self-harm behavior as the adolescents engaged in a greater variety of such behaviors.

### Discordance of Self-Harm Behavior Reports

Among the mother-adolescent pairs, the discordance for each behavior, in descending order of prevalence, was as follows: preventing wounds from healing, 38.0%; hitting self, 29.6%; scratching self, 28.2%; banging head, 28.2%; attempting suicide, 22.5%; burning self, 19.7%; and cutting self, 12.7%. Note that among the seven behaviors, preventing wounds from healing was the most discordant behavior; that is, in the majority of cases, mothers were not aware of the behavior.

### Discussion

From a clinical perspective, these data indicate that among adolescents in outpatient psychiatric treatment, there is a high prevalence of self-harm behavior. These data echo the findings of other investigators who have reported similar findings in nonclinical (i.e., community) samples of adolescents (Laye-Gindhu & Schonert-Reichl, 2005; Lloyd, 1998; Ross, 2006).

In addition, whereas mothers appear to be generally aware of their adolescents' self-harm behavior, the more self-harming the adolescent is, the less likely the mother is to be aware of the child's panorama of self-destructive acts. This disturbing finding suggests that among adolescents with the highest levels of self-harm behavior, parents are less likely to be useful sources of information for clinicians.

Why the mothers of more self-harming adolescents are less aware of these behaviors is unknown. However, this finding may be related to maternal neglect or the lack of a goodness of fit (i.e., a mother

with low emotional involvement with her child), the adolescent's need for such behavior to be discovered to be affirmed about parental caring, and/or the adolescent's need to covertly engage in this behavior to maintain the psychological functions of self-harm behavior (e.g., self-soothing, anger modulation, prevention of dissociation).

In this study, we found that mothers were more likely to concur with their children for more severe acts of self-harm. This finding is probably related to the more graphic nature of more severe acts (e.g., cutting self versus scratching self), the adolescent's possible need to be discovered, and/or the need for acute first-aid or more advanced care because of the act (e.g., burning self). In this survey, we did not inquire whether the adolescent actually attempted to conceal the self-injury from the parent.

In this study, having prevented wounds from healing and having scratched self were the most common self-harm behaviors reported by adolescents. In many other studies (e.g., Laye-Gindhu & Schonert-Reichl, 2005; Lowenstein, 2005), self-cutting is the most commonly reported self-harm behavior. We believe that this seeming disparity relates to the methodologies of the studies—namely, that most investigators do not inquire about preventing wounds from healing and scratching self. Of note, having prevented wounds from healing has some potentially disturbing implications for clinicians in general medical fields, particularly for those working in primary care settings.

Interestingly, we are not aware of any data among adolescents regarding the influence of the format for self-disclosure. Specifically, are adolescents equally willing to self-disclose self-harm information in face-to-face interviews versus self-report measures, or is one approach more likely to elicit higher levels of candor? Regarding feasible self-report options, the Self-Harm Inventory (SHI; Sansone, Wiederman, & Sansone, 1998) is an available measure of self-harm behavior for clinical use. The SHI is a 22-item *yes/no* self-report measure that explores respondents' lifetime histories of self-harm behavior. Each item in the inventory is preceded by the statement, "Have you ever intentionally, or on purpose . . .," and items include "overdosed," "cut yourself on purpose," "prevented wounds from healing," and "attempted suicide." Each endorsement on the SHI is pathological, and the SHI total score is the sum of all *yes* responses. To our knowledge, this measure has undergone very little utilization in adolescent populations. However, given the findings of this study

and the inherent descriptive value of the SHI, it would seem to be a useful assessment tool for adolescents who are being seen in outpatient psychiatry clinics.

In this adolescent sample, nearly a quarter acknowledged a past suicide attempt. We believe that clinicians are keenly aware of the need to inquire about suicidal ideation in psychiatric patients, adults and adolescents. This issue has become particularly salient because of the recent controversy and concern about antidepressant stimulation of suicidal ideation in some individuals.

We also sense that clinicians are likely to routinely inquire about common and visible forms of self-mutilation among adolescent patients, particularly self-cutting. However, several self-harm behaviors in this study (i.e., preventing wounds from healing, hitting self, banging head, scratching self) demonstrated high rates of prevalence, from 27% to 38%. With the exception of scratching oneself, these behaviors are not particularly obvious or evident, nor are they ones that leave telltale signs of damage, with the possible exception of temporary bruising. In addition to presenting clinicians with difficulties of visual detection, these behaviors demonstrate relatively high rates of mother–adolescent discordance; that is, in most cases, these behaviors were unknown to mothers. This finding underscores our recommendation that clinicians inquire about several self-harm behaviors that are known to be commonly encountered in adolescent populations because, according to our findings, these are not likely to be observable or known by parents.

### **Clinical Implications**

The findings of this study have several clinical implications. First, among those adolescents with more self-harming, parents are less likely to be aware of adjunctive self-harm behaviors. Therefore, the clinician is reliant on the adolescent's candor and willingness to disclose this sensitive type of information. This finding may be related to the conclusion of Ferdinand et al. (2004), who found that adolescent nondisclosure is associated with poor clinical outcome. Second, for more severe acts of self-harm, there is good concordance between mother and child. This finding suggests that for severe acts, parents are reasonable sources of information for the clinician. Third, preventing wounds from healing and scratching oneself were the most common adolescent self-harm behaviors in this study. As such, these may represent high-yield areas of

inquiry for the clinician. These two items are also highly relevant to primary care clinicians, who may not query adolescents in detail about these types of physical findings during physical examination. Last, among these adolescents in psychiatric outpatient treatment, there was a high prevalence of suicide attempts, supporting the routine inquiry of suicidal ideation among all adolescents in psychiatric settings.

### **Limitations of the Study**

This study has a number of potential limitations. First, the data were entirely self-report without any external corroboration; the potential limitations of self-report data are well known. Second, one of the two participant groups consisted of adolescents. The use of an adolescent subsample may have resulted in large variations in candor and willingness to self-disclose, particularly if the adolescent patient had been coerced into psychiatric treatment. If so, these data might actually underrepresent the self-harm behaviors under study, and our findings would be the proverbial tip of the iceberg. Third, these data reflect mothers', not fathers', observations of their adolescents' behaviors. We do not know how the observations of fathers would compare with mothers; therefore, we cannot characterize these findings in terms of "parental" observations. Finally, we do not know whether mothers modified their responses (i.e., underreported information), because of their concerns about how the military might view such information.

### **Strengths of the Study**

In terms of the strengths of this study, it is the first, to our knowledge, to examine the concordance and discordance between mother–adolescent pairs in the reporting of self-harm behavior by adolescents. Our findings clearly offer clinicians some insight into parental awareness of an adolescent's self-harm behavior and the potential implications for clinical assessment.

### **Future Research Needs in this Area**

Future studies in this area might examine the adolescent's efforts to conceal such behavior (including their rationales), the differences in awareness between mothers' and fathers' observations, and the parents' psychiatric symptomatology versus the parents' awareness of self-harm behavior in their adolescent children.

## Conclusion

In an adolescent outpatient psychiatric population, self-harm behaviors are fairly prevalent, particularly preventing wounds from healing and scratching oneself. In examining mothers' awareness of their child's self-harm behavior, there was a moderate level of concordance between mother and adolescent with regard to behaviors that were not being performed (56%–80%). In most cases of discordance, the mother denied a behavior that the adolescent indicated as having actually performed. In addition, mothers were significantly less likely to acknowledge self-harm behaviors in their adolescents as the number of self-harm behaviors reported by offspring increased. With regard to their adolescents, mothers are clearly aware of some self-harm behaviors and not others.

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