Research Article

LONGITUDINAL FOLLOW-UP STUDY OF ADOLESCENTS WHO REPORT A SUICIDE ATTEMPT: ASPECTS OF SUICIDAL BEHAVIOR THAT INCREASE RISK OF A FUTURE ATTEMPT

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Background: *Previous studies have noted that a past suicide attempt (SA) predicts a future SA, but few studies have reported whether previous SAs that predict a future attempt differ from those that do not. Knowing which characteristics of previous SAs predict future attempts would assist in evaluating adolescents at risk of attempt repetition. This longitudinal study of an unreferred sample examined which characteristics of adolescent SAs increased risk for repeat attempts.* **Methods:** *Fifty-four adolescents who had attempted suicide were identified through a two-stage screening of 1,729 high school students. Adolescents reported details of their past SA on the Adolescent Suicide Interview and were reassessed 4–6 years later by telephone.* **Results:** *Eighteen of the 54 teens (33%) reported that they had made another SA since baseline, and 17 of these reported characteristics of their later attempt. The odds of a further attempt were significantly increased by being alone (OR = 6.1, 95% CI = 1.1–34.8), retrospectively reporting a serious wish to die (OR = 5.2, 95% CI = 1.2–22.7), and planning the attempt for an hour or more (OR = 5.1, 95% CI = 1.1–25.0). The method of attempt remained consistent from baseline to follow-up attempt (κ = .67).* **Conclusions:** *Screening high school students to identify those who are at risk for making future SAs should include questions about number of previous SAs and such indicators of risk as isolation, wish to die, and extent of planning prior to a SA. Depression and Anxiety 31:19–26, 2014.* © 2013 Wiley Periodicals, Inc.

Key words: *suicide/self-harm; child/adolescent; cognition; depression; mood disorders*

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INTRODUCTION

Reviews of studies conducted in clinical and community samples suggest that up to 42% of adolescents who attempt suicide go on to make another attempt within 2 years of their original attempt,[1,2] with girls who attempt suicide in adolescence at higher risk of repetition than boys.[3] Repeated suicide attempts (SAs) are, in turn, associated with higher rates of psychiatric diagnosis,[4] particularly major depression,[2] and with difficulties in emotion regulation, hopelessness,[5] and risk for further SAs.[4,6,7] Given that adolescence is a time period of increased psychosocial stressors that may impact risk for suicidal behavior,[1] identifying more specific risk factors for repetition of SAs during this period of development is a particularly useful goal, with implications for

treatment. Information that could sharpen or increase the accuracy of predictions and that could direct the clinical examination of those factors after an attempt might improve prediction of risk for adolescent SA repetition.[8]

Although there have been a number of studies of adolescent SA repetition,[4,6,9–11] only two previous studies of which we are aware have focused on the prognostic value of elements of the SA itself. Brent et al. examined differences between adolescents who made a repeat SA during a 6-month follow-up period from those who did not make a repeat attempt. There were no differences between groups on a clinician's overall rating of the lethality of the adolescent's attempt, based on a risk-rescue rating, or on an overall score reflecting suicidal intent.[12] However, the study was limited in that it did not examine specific features of SAs (e.g., planning, isolation during the attempt) that increased risk for future SAs. Grøholt et al. studied a sample of 78 adolescents admitted to hospitals in Oslo, Norway for medical reasons after an SA and followed them up 8–10 years later to determine whether they made a repeat attempt. Adolescents who made repeat SAs during the follow-up period did not differ from those who did not make a repeat attempt in features of their index SA, including wish to die, whether the attempt was planned, medical seriousness of the SA, and on an overall score reflecting suicidal intent.[9] Thus, the few available follow-up studies of clinical samples of adolescents with an SA history have not found distinctions between those who make repeat attempts and those who do not make repeat attempts in features of their index SAs.

Using data from a sample identified through a two-stage high school screening, Miranda et al. compared adolescents with a history of single and multiple SAs in a cross-sectional analysis of specific features of their most recent SA. Adolescents with a history of multiple attempts—who were found to be at higher risk for SA repetition over time—less often reported timing their attempts so that intervention would be possible, more often reported wishing to die during their attempts, and more often regretted recovery from their attempts, compared to adolescents with a history of a single attempt.[4] However, the study did not examine whether specific SA features predicted a future attempt. Thus, an aim of the present study was to examine which features of an adolescent SA would increase risk for future attempts in a subsample of adolescents from the Miranda et al. study who were followed up over time.

In addition to identifying characteristics of an SA that increase risk of repetition, it would be useful to understand whether SA characteristics, such as method, change from one attempt to the next, and whether such change might provide information about risk for completed suicide. For instance, a psychological autopsy study of 1,397 completed suicides among adults in Finland (between 1987 and 1988) found that 82% of women with a previous SA who eventually died by hanging had previously made an SA using a less lethal method (i.e.,

drug overdose), and about 80% of males who eventually died by hanging had either previously used the same (38%) or a less lethal method (i.e., drug overdose; 42%) of attempt.[13] In a Swedish national register linkage study, 48,649 individuals over age 10 who were admitted to a hospital after attempting suicide (between 1973 and 1982) were followed up over 21–31 years. Among 5,740 of those individuals with a previous SA who went on to die by suicide, the majority of individuals used the same method when they completed suicide as they had during their index attempt. The exception was when the method used was cutting or piercing. Only 19% of men and 6% of women who made their index attempt by cutting or piercing used the same method when they completed suicide.[14] Finally, increase in the seriousness of an SA (e.g., number of drugs ingested, dose ingested), from one attempt to the next, has previously been found to be associated with enhanced risk for subsequent suicide among self-poisoning adults.[15]

Joiner suggested previous suicidal behavior serves as a form of "practice" for future suicidal behavior and that individuals "improve" their ability to engage in suicidal behavior with repetition, thus increasing the risk of completed suicide.[16] It would thus be useful to track change in method of attempt with repetition among adolescents—i.e., whether the method of a repeat attempt is more potentially lethal than that of an index attempt. Similarly, Rudd's fluid vulnerability theory suggests that previous suicidal behavior lowers the threshold for triggering future suicidal behavior by creating links between the circumstances that surrounded the SA (including thoughts) and the suicidal behavior, itself.[17] Indeed, a recent retrospective study that sought to characterize the types of life events that triggered SAs among 110 adults who attempted suicide found SAs that were planned for less than 3 hr tended to be preceded by relationship-related triggering events in the 24 hr leading up to the attempt. However, SAs that were planned for 3 hr or longer tended not to be immediately preceded by such triggers, suggesting, perhaps, that planning may lower the threshold for triggering an SA.[18] Thus, it would also be useful to examine whether particular characteristics of a previous SA increase vulnerability to future SAs.

The present study sought to (1) identify SA characteristics that might increase risk for repetition among teenagers who endorsed an SA history during a screening, and (2) determine whether the method of adolescent SAs changes with repetition. In the present study, SA characteristics examined included those indicative of planning and preparation, wish to die, and efforts to avoid discovery, given that these characteristics have previously been found to be associated with completed suicide in adults.[19]

METHOD

PARTICIPANTS

Fifty-four participants (43 female), ages 12–18 (*M* = 15.8, *SD* = 1.4), were identified in a high school screening as having a history

of an SA[20] and were followed up as part of a larger study examining long-term outcomes of teens identified in a school-based screening. Participant ethnicities were White (39%), Hispanic (33%), Black (19%), and Asian (9%). Most participants ($N = 34$; 63%) met DSM-III-R criteria for either a mood ($N = 21$; 39%), anxiety ($N = 27$; 50%), substance-use disorder ($N = 9$; 17%), or more than one of these types of diagnoses ($N = 19$; 35%) as assessed at baseline with the Diagnostic Interview Schedule for Children, version 2.3.[21] A higher proportion of female participants (50%) than male participants (10%) met criteria for a mood diagnosis, $\chi^2 = 3.74$, $P = .05$, with no statistically significant gender difference in anxiety and substance-use diagnoses at baseline.

PROCEDURE

Teens were identified from 1,729 teenagers who completed the Columbia Suicide Screen (CSS) between 1991 and 1994.[20] The CSS is an 11-item questionnaire, embedded in a more general 32-item health survey, that includes questions about suicidal ideation in the previous 3 months and lifetime SA history. Teens screened positive for suicidality if they reported suicidal ideation in the previous 3 months ("yes" to the question, "During the past 3 months, have you thought about killing yourself?") or a lifetime SA ("yes" to the question, "Have you ever tried to kill yourself?") on the CSS ($N = 298$) or to an interviewer. Detailed screening procedures and characteristics of the larger sample can be found elsewhere.[20]

Two hundred and twenty-eight (77% of 298 teens who screened positive for a lifetime SA or recent ideation, and/or teens who reported any suicidality to a study interviewer or clinician)[4] completed the Adolescent Suicide Interview (ASI).[22] For the present study, teens were classified as endorsing an SA if they responded "yes" to the question, "Have you ever tried to kill yourself" on the ASI and if they also reported they had actually engaged in self-inflicted harmful physical action during their attempt. Eighty teens who completed the ASI endorsed an SA history during the interview, and 65 of the 80 teens reported that they had actually initiated self-inflicted harmful physical action.

Fifty-four of these teens (83%) were included in a follow-up conducted 4–6 years later ($M = 5.4$ years, $SD = 0.9$) as part of a larger study of a subsample of teens from the original screening to assess whether they had made a subsequent SA (see Figure 1). Individuals were contacted via phone, letters, telegrams, or home visits and were readministered an adapted version of the ASI by telephone (or in person if during a home visit) to assess for an SA since the original interview. Lay interviewers (with at least a Bachelor's degree in psychology or social work), supervised by a psychiatrist, conducted the assessments. There were no significant age, gender, ethnic, or diagnostic differences between teens who were or were not followed up.

Passive consent for study participation was obtained at baseline (i.e., parents received forms describing the study and giving them an opportunity to not participate), and teens provided active written assent for participation. Consent for follow-up was obtained from participants by telephone and was audio recorded. The Institutional Review Boards (IRB) of the New York State Psychiatric Institute (NYSPI), the New York City Board of Education, and the Archdiocese of New York approved the baseline protocol, and the NYSPI IRB approved the follow-up study.

MEASURES

Adolescent Suicide Interview (ASI)[22]. The ASI is a 37-item, semistructured interview that assesses characteristics of teenagers' most recent SA. Adolescents who report a history of any past SAs (i.e., respond "yes" to the question, *Have you ever tried to kill yourself?*) complete subsequent questions assessing characteristics of their most recent SA. Choice of wording and order of presentation are left to the interviewer. Areas of inquiry include method, precipitating events, warnings/threats (e.g., *Did you tell anyone that you were planning to kill yourself before you actually did it?*), planning (e.g., *When did you make up your mind to ____? How long before you actually took ____?*), final acts in anticipation of death (e.g., giving away possessions), the presence of a suicide note, isolation (i.e., whether the attempt was made with or without someone present or in the vicinity), whether the attempt was timed so that intervention by another person was possible or likely (based on the interviewer's assessment), whether precautions were taken against discovery (e.g., closing the door, locking the door), wish to die (e.g., *Looking back at it now ... How serious do you think you were about wanting to die?*), perceived lethality (e.g., *Did you think that _____ would kill you?*), and whether the SA was disclosed to a responsible adult. Only objective characteristics surrounding the SA—including planning, final acts, presence of a suicide note, warnings, isolation, timing of the SA for intervention, and efforts to avoid discovery—were examined as predictors of repetition in the current study. However, we also examined wish to die, as recent psychological theories of suicide suggest that risk for repeated suicidal behavior is not only a function of a lowered threshold for engaging in suicidal behavior, but that it also depends on how much an individual wishes to die.[16,17] While previous research with both adults and adolescents suggests that individuals with a history of multiple SAs are distinguished from those with a history of previous attempts by either more often regretting recovery from their SA or less often regretting their SA,[4,23] we did not focus on whether individuals regretted recovery, because it involved feelings after the SA rather than leading up to the SA. Cronbach's alpha for the eight items examined in the present study was .75.

A modified ASI was used at follow-up to assess for any attempts since the baseline assessment and also the characteristics of individuals' most recent attempt. This modified version contained some changes in wording and excluded perceived lethality.

DATA ANALYSIS

Logistic regressions were conducted to determine whether endorsing a particular SA characteristic increased risk for a subsequent attempt at follow-up, adjusting for demographic variables (age, sex, ethnicity), for the presence of a baseline mood, anxiety, or substance use diagnosis, as in previous research,[4] and for number of previous SAs, which ranged from 1 to 5 in the present sample ($M = 2.0$, $SD = 1.2$). Ordinal predictors were dichotomized prior to conducting the analyses to reflect whether teens reported that they did not warn anyone of their attempt, that they planned the attempt for an hour or more, engaged in final acts, wrote a suicide note, took precautions against discovery, were isolated (i.e., no one present or in the vicinity) during the attempt, timed the attempt so that intervention was not likely, and wished to die. Missing data (<10% of cases per variable) were excluded from the denominators of percentages reported. Statistical tests are two-tailed.

RESULTS

SUICIDE ATTEMPT (SA) CHARACTERISTICS AT BASELINE

Method of attempt included ingesting a substance ($N = 33$; 61%), using a cutting instrument ($N = 14$; 26%), or other methods ($N = 6$; 11%) (e.g., hanging, suffocation), with one teen reporting more than one method (a firearm and a cutting instrument). A higher proportion of females ($N = 28$; 67%) reported ingestion than did males ($N = 2$; 20%), $\chi^2 = 5.42$, $P = .02$, and a higher proportion of males ($N = 4$; 36%) reported using other methods than did females ($n = 3$; 7%), $\chi^2 = 4.35$,

$P = .04$. There was no statistically significant gender difference in use of a cutting instrument (23% females vs. 46% males), $\chi^2 = 1.19$, $P = .28$. Thirty percent of teens ($N = 16$) reported disclosing their SA to a responsible adult, and 59% of teens ($N = 32$) reported they either thought their method of attempt would kill them or were unsure (Note that perceived/uncertain lethality was not a significant predictor of a future attempt, $OR = 1.5$, 95% $CI = 0.4–5.3$). Table 1 (first column) reports the distribution of ASI characteristics examined as predictors of a repeat attempt.

SA CHARACTERISTICS THAT INCREASED RISK FOR A FOLLOW-UP ATTEMPT

Eighteen suicide attempters (33%; 16 females, 2 males) reported they made an attempt within the 4- to 6-year follow-up period. Method used at baseline did not predict an attempt at follow-up. However, teens who reported that they had wanted to die had over five times higher odds of making a subsequent SA ($OR = 5.2$, $CI = 1.2–22.7$), compared to teens who did not wish to die or who were uncertain. Teens who attempted when alone had over six times higher odds of engaging in another SA within the follow-up period ($OR = 6.1$; $CI = 1.1–34.8$). Individuals who planned their attempt for an hour or more had over five times higher odds of a reattempt ($OR = 5.1$; $CI = 1.1–25.0$). No other SA characteristics significantly predicted a reattempt (see Table 1).

NATURE OF ATTEMPT AT FOLLOW-UP

Subsequent SAs were made through ingestion ($n = 12$; 67%), a cutting instrument ($n = 3$), or some other method ($n = 3$; gun, asphyxiation with a pillow, and attempted starvation). Method of attempt generally remained consistent, $\kappa = .67$, $P < .01$ (see Table 2). Almost all subsequent attempters who used ingestion had also done so at baseline ($n = 11$; 92%), while two thirds of subsequent attempters who used cutting ($n = 2$) or another method ($n = 2$) at follow-up had done so at baseline. Seventeen of the 18 teens who endorsed an attempt at follow-up reported on characteristics of their attempts (see Table 3), and all 17 of these teens had engaged in harmful physical action with either a definite or uncertain wish to die during their baseline SA. The majority of repeat attempts were planned for less than an hour (87%), involved no warnings or threats (88%), no precautions against discovery (100%), and were timed so that intervention was not likely (85%). About half of repeat attempts were made when the teen was alone (53%), and close to half of the teens reported "maybe" or "definitely" wanting to die at the time of the attempt (47%).

DISCUSSION

This study investigated repetition of SAs in an adolescent sample self-identified during the process of universal screening. Specifically, this study examined whether SA characteristics assessed in mid-adolescence increased risk for a repeat attempt during a 4- to 6-year follow-up period. In this particular sample, we identified isolation, planning, and wish to die as features of an SA that characterize enhanced risk. These findings are consistent with Miranda et al.'s retrospective study with teenagers that identified wish to die as among the characteristics that distinguished adolescents with a history of single and multiple SAs.[4] However, unlike that study, it also identified isolation and planning as indicators of enhanced risk and did not identify timing of the attempt for intervention as a feature that enhanced risk of repetition. It also extends previous research by identifying these characteristics in a longitudinal design with an adolescent sample identified through screening. In contrast, our findings are inconsistent with Brent et al.'s 6-month follow-up study and Grøholt et al.'s follow-up of adolescents over 8–10 years, which did not find specific SA characteristics that enhanced risk of repetition. Thus, the present study is the first of which we are aware to identify specific features of a previous SA that may increase risk of a future SA among adolescents and suggests that evaluations of adolescents who attempt suicide may benefit from including questions on planning, isolation, and wish to die.

These findings also address the theory that SA repetition may enable individuals to acquire the ability to engage in lethal self-harm. Greater length of planning at baseline, as a predictor of a repeat attempt, is consistent with Joiner's model of suicidal behavior as being an acquired ability,[16] since planning may serve as a form of "practice" for an SA. It is also consistent with theories suggesting that previous suicidal thoughts may increase vulnerability to future suicidal behavior by lowering the threshold for triggering an SA.[17] Our findings might suggest that among adolescents, greater length of planning during a previous attempt may lower the threshold for triggering a future SA.

We also found that the majority of repeat attempts made during the follow-up period were impulsive—i.e., they were planned for less than an hour. Furthermore, method of attempt remained consistent between attempts reported at baseline and those reported at follow-up, suggesting that teens may learn to attempt using a particular method but not necessarily that the method increases in severity with repetition. Previous research with adults suggests that impulsive SAs (i.e., involving lack of planning) are associated with lower lethality in the attempt.[24] Perhaps among adolescents, previous planning reduces planning in a future SA, because adolescents will make a future SA via a previously used method. Future research should examine change in the nature of subsequent repeat attempts, to determine whether adolescents continue to make SAs using the same method and whether continued change in the nature of an attempt is informative about risk for completed suicide.

TABLE 1. Suicide attempt characteristics (N = 54)

	Baseline		Attempted at follow-up		Mann–Whitney U	OR	95% CI
	N	(%)	N	(%)[b]			
Warning/threats (N = 54)					302.0	1.0	(.2, 4.2)
None[a]	41	(76)	13	(32)			
Single, veiled threat (e.g., "I won't be in class next week")	6	(11)	2	(33)			
Single, specific threat (e.g., "I plan to kill myself")	6	(11)	2	(33)			
Multiple threats	1	(2)	1	(100)			
Planning (N = 54)					273.5	5.1*	(1.1, 25.0)
<1 hr[a]	39	(72)	10	(26)			
1–24 hr	8	(15)	4	(50)			
24 hr to 1 week	4	(7)	2	(50)			
1 week to 1 month	2	(4)	1	(50)			
>1 month	1	(2)	0	(0)			
Final acts (N = 52)					297.5	4.4	(.2,122.1)
None[a]	50	(96)	17	(34)			
Partial	1	(2)	0	(0)			
Definite	1	(2)	1	(100)			
Suicide note (N = 51)					262.5	3.7	(.4,30.6)
Absence of note[a]	46	(90)	15	(33)			
Note written but torn up	2	(4)	0	(0)			
Note written and left to be viewed	3	(6)	3	(100)			
Precautions against discovery (N = 51)							
No precautions[a]	37	(73)	11	(30)	248.0	2.3	(.6,9.6)
Passive precautions	11	(21)	6	(55)			
Active precautions	3	(6)	1	(33)			
Isolation (N = 52)					233.0	6.1*	(1.1,34.8)
Someone present[a]	12	(23)	3	(25)			
Someone home or in the vicinity[a]	25	(48)	7	(28)			
Alone, with possibility of contact	12	(23)	7	(58)			
Alone, without possible contact	3	(6)	1	(33)			
Timing (N = 49)					215.5	2.7	(.6,11.3)
Timed so intervention likely[a]	14	(29)	4	(29)			
Timed so intervention possible[a]	15	(31)	4	(27)			
Timed without knowing possibility	4	(8)	1	(25)			
Timed so intervention not likely	16	(33)	8	(80)			
Wish to die at time of attempt (N = 52)					198.0*	5.2*	(1.2,22.7)
Did not want to die[a]	14	(27)	1	(7)			
Uncert/did not care if lived/died	18	(35)	7	(39)			
Wanted to die, but < $\frac{1}{2}$ hr	4	(8)	3	(75)			
Wanted to die $\frac{1}{2}$ hr – 24 hr	4	(8)	2	(50)			
Wanted to die > 1 day	12	(23)	5	(42)			

**p < .01; *p < .05; +p < .10.
[a]Used as reference category/combined into reference category for odds ratios.
[b]Percentages are for rows. Odds ratios are adjusted for age, sex, ethnicity, presence of a psychiatric diagnosis, and number of previous attempts.

TABLE 2. Attempt at follow-up by method of attempt at baseline

Baseline Method	Baseline attempts (N = 54)		Attempt at follow-up (N = 18)		Method at follow-up N (%)		
	N	(%)	N	(%)[a]	Ingestion[b]	Cutting[b]	Other[b]
Ingested substance	33	(61)	12	(36)	11 (92)	1 (8)	0 (0)
Cutting instrument	14	(26)	4	(29)	1 (25)	2 (50)	1 (25)
Other method	6	(11)	2	(33)	0 (0)	0 (0)	2 (100)
> one method	1	(2)	-	-	-	-	-

[a]Row percentages; Denominators for percentages are the numbers of baseline suicide attempts of each type (listed in column 1).
[b]Row percentages; Denominators for percentages are the numbers of adolescents with each type of baseline SA method that made an attempt at follow-up (listed in column 2).

This study has several strengths: a longitudinal design, an ethnically diverse community sample, a relatively high rate of follow-up, and inclusion of the developmental transition from adolescence to young adulthood. However, some limitations should be noted. First, because of the small sample size, Bonferroni corrections to control for Type I error were not conducted in order to avoid Type II error, given the priority of identifying risk. Second, because the sample was a self-identified screening sample, it is uncertain whether the findings would generalize to a clinically referred sample, as the majority of adolescents in the present sample did not disclose their SA and thus did not receive treatment following the attempt. Furthermore, it is unclear whether information elicited immediately following an attempt would be the same as that recounted in a screening. Nevertheless, a nonreferred sample would be more representative of the overall population of adolescents who attempt suicide than a clinical sample would be, and also more representative of the types of teenagers who would be screened in primary care or school settings. At the same time, a self-identified sample of adolescents who engage in SA repetition may not be representative of all adolescents who make repeat SAs. It should be noted that the rate of repetition in the present sample (33%) is consistent with that of studies with clinical samples of adolescents examining similar follow-up periods.[6,7,9–11] Third, there was no objective measure of medical lethality to allow comparison of differences between the SAs assessed at baseline and follow-up. Fourth, follow-up data were gathered retrospectively and may thus be subject to recall bias.

The conclusions that can be drawn from these data are also limited by gender, as 80% of the sample consisted of girls. There may be gender differences in SA severity among teens who make repeated SAs. Indeed, there was a higher rate of ingestion at baseline and follow-up among female than among male teens in the present study, though there was no significant gender difference in use of a cutting instrument as a method. These differences are consistent with previous research findings that
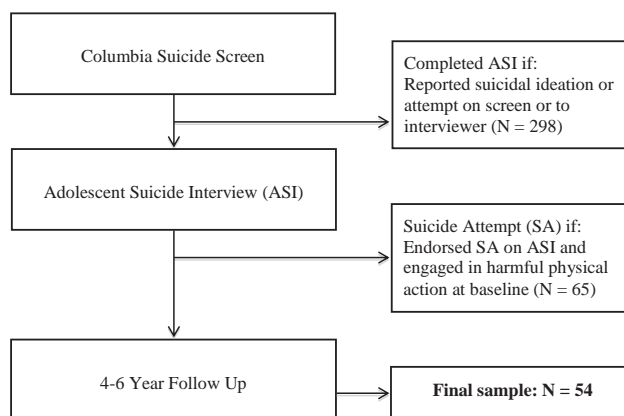

Figure 1. Sample selection for the present study. Adolescents identified from a screening of 1,729 high school students completed the ASI. Suicide attempts were classified when adolescents endorsed an SA on the ASI that involved harmful physical action. Adolescents were reinterviewed 4–6 years later to determine if they made an SA during the follow-up interval.

ingestion is one of the most common methods of attempt among teenage girls but inconsistent with previous findings suggesting that cutting is more common among girls than boys as an attempt method.[2,25] Finally, the present sample included teenagers who indicated they made an SA by cutting. It might be argued that teenagers who engage in self-harm by cutting are engaged in nonsuicidal self-injury rather than SAs. As there were no significant differences in SA characteristics between teens who reported cutting versus other methods in the present sample, these teens were retained in the analyses. However, nonsuicidal self-injury was not assessed at baseline or at follow-up. Given recent evidence that self-cutting increases risk for suicidal ideation, attempts, and completed suicide,[26,27] future research should distinguish between self-cutting as a method of attempt, versus other SA methods, and should also distinguish between SAs and nonsuicidal self-injury.

TABLE 3. Suicide attempt characteristics at follow-up (*N* = 17)

	Total		Single past SA (*n* = 6)		Multiple past SA (*n* = 11)	
	N	(%)	*N*	(%)	*N*	(%)
Warning/threats (*N* = 17)						
None	15	(88)	5	(83)	10	(91)
Single, veiled threat	1	(6)	1	(17)	0	(0)
Single, specific threat	0	(0)	0	(0)	0	(0)
Multiple threats	1	(6)	0	(0)	1	(9)
Planning (*N* = 15)						
<1 hr	13	(87)	3	(60)	10	(100)
1–24 hr	2	(12)	2	(40)	0	(0)
24 hr to 1 week	-	-	-	-	-	-
1 week to 1 month	-	-	-	-	-	-
>1 month	-	-	-	-	-	-
Final acts (*N* = 17)						
None	17	(100)	6	(100)	11	(100)
Partial	-	-	-	-	-	-
Definite	-	-	-	-	-	-
Suicide note (*N* = 17)						
Absence of note	16	(94)	5	(83)	11	(100)
Note written but torn up	0	(0)	0	(0)	0	(0)
Note written and left to be viewed	1	(6)	1	(17)	0	(0)
Precautions against discovery (*N* = 14)						
No precautions	17	(100)	3	(50)	2	(25)
Passive precautions	0	(0)	2	(33)	1	(13)
Active precautions	0	(0)	1	(17)	5	(63)
Isolation (*N* = 15)						
Someone present	3	(20)	1	(17)	2	(22)
Someone nearby or in contact	4	(27)	1	(17)	3	(33)
Alone	8	(53)	4	(67)	4	(44)
Timing (*N* = 13)						
Timed so intervention probable	2	(15)	0	(0)	2	(25)
Timed so intervention not likely	11	(85)	5	(100)	6	(75)
Wish to die at time of attempt (*N* = 17)						
Did not want to die	3	(18)	1	(17)	2	(18)
Uncert/did not care if lived/died	6	(35)	3	(50)	3	(27)
Wanted to die, maybe	4	(24)	2	(33)	2	(18)
Wanted to die, definitely	4	(24)	0	(0)	4	(36)

CLINICAL IMPLICATIONS

These findings have implications for assessment of risk of SA repetition and also for treatment. Inquiries with teenagers regarding their SA history should include questions about such characteristics as whether the SA was made when the individual was alone, the degree of planning involved, and about the individual's wish to die during the attempt, in order to determine risk for repetition. However, knowing this increased risk does not necessarily provide information about severity of a subsequent attempt or whether it will be more likely to result in completed suicide. These data also suggest that clinicians working with adolescents who attempt suicide should focus on reducing seriousness of the individual's wish to die. This might be accomplished by addressing factors that are thought to impact suicidal desire, such as the degree to which individuals perceive themselves to be a burden to others and the degree to which they feel that they do not belong to a particular group.[16] Finally, it is possible that adolescents who engage in detailed planning prior to an SA are more vulnerable to making a future SA using the same method because they are unable to consider alternative ways of problem-solving.[28] Thus, treatment should seek to help adolescents identify alternative ways to respond to problems when they encounter circumstances that lead them to consider suicide.

CONCLUSION

This is the first study of which we are aware to suggest specific characteristics of a previous adolescent SA that enhances risk of repetition. Future research should continue to examine whether characteristics such as isolation, planning, and wish to die during an SA are associated with increased severity in adolescent SAs, so that assessments and interventions can be better targeted to identify teenagers at risk for premature death.

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