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Original Research

Parental Sexual Abuse and Suicidal Behaviour Among Women With Major Depressive Disorder

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Objective: Women with major depressive disorder (MDD) and childhood sexual abuse histories have an increased risk for suicidal behaviours, but it is unclear whether specific abuse characteristics contribute to risk. We aimed to examine the contributions of abuse characteristics to lifetime history of suicide attempts and multiple suicide attempts, independent of posttraumatic stress disorder and borderline personality disorder.

Method: Women with MDD and sexual abuse histories (*n* = 106) were assessed regarding sexual abuse characteristics, psychiatric diagnoses, and suicide attempts.

Results: In multivariate logistic regressions, the odds of having multiple suicide attempts increased 12.27-fold when childhood sexual abuse was perpetrated by a parent figure or a parent, compared with a nonparent.

Conclusions: Parental perpetration of sexual abuse increases the likelihood of multiple suicide attempts among women outpatients. The relationship of the perpetrator to the abused woman is important in suicide risk evaluation and treatment planning.

Clinical Trial Registration Number: NCT00843700

Objectif : Les femmes souffrant de trouble dépressif majeur (TDM) et ayant des antécédents d'abus sexuel dans l'enfance ont un risque accru de comportements suicidaires, mais il n'est pas déterminé si des caractéristiques spécifiques de l'abus contribuent au risque. Nous avons cherché à examiner les contributions des caractéristiques de l'abus aux antécédents à vie de tentatives de suicide et aux multiples tentatives de suicide, indépendamment du trouble de stress post-traumatique et du trouble de la personnalité limite.

Méthode : Des femmes souffrant de TDM et ayant des antécédents d'abus sexuel (n = 106) ont été évaluées relativement aux caractéristiques de l'abus sexuel, aux diagnostics psychiatriques, et aux tentatives de suicide.

Résultats : Dans les régressions logistiques multivariées, les probabilités d'avoir de multiples tentatives de suicide étaient 12,27 fois plus nombreuses quand l'abus sexuel dans l'enfance était perpétré par une figure parentale ou un parent, comparativement à un non-parent.

Conclusions : La perpétration parentale de l'abus sexuel accroît la probabilité de multiples tentatives de suicide chez les femmes patientes ambulatoires. La relation de l'auteur de l'abus à la femme abusée est importante pour l'évaluation du risque de suicide et la planification du traitement.

Numéro d'enregistrement de l'essai clinique : NCT00843700

Women with childhood sexual abuse histories have an elevated risk for suicide attempts[1–6] and comprise a large segment of the outpatient psychiatric population.[7–9] Recognizing that risk for suicidal behaviour is multi-determined, the extent to which it can be ascribed to specific characteristics of childhood sexual abuse, independent of established diagnostic correlates such as PTSD and BPD,[10–16] is unclear. A few studies in clinical samples have not found that sexual abuse was associated with suicide attempt histories after controlling for PTSD and personality disorders,[11,17,18] but none examined specific characteristics of the abuse in relation to suicide attempts.

In our study, we examined 4 abuse characteristics known to be associated with suicide attempt histories: abuse involving intercourse,[10,19–21] a parent figure or parent perpetrator,[19,22] abuse involving force,[19,20] and age of onset.[19] People with histories of single compared with multiple attempts were distinguished, as the latter, have a higher risk for future suicidal behaviour.[23–25] We expected that abuse involving intercourse, a parent figure or parent perpetrator, or force would be associated with suicide attempts. To our knowledge, this is the first study among women with MDD and sexual abuse histories to examine the relative contributions of abuse characteristics to suicide attempt histories, independent of current PTSD, BPD, and other covariates.

Clinical Implications

- Parental perpetration of sexual abuse is strongly associated with multiple suicide attempts among women with MDD.
- The effect of a parent figure or parent perpetrator on suicide attempt status was independent of borderline personality disorder and posttraumatic stress disorder.
- Findings suggest the importance of attending to the features of sexual abuse in suicide risk evaluation and treatment planning.

Limitations

- Our study used a cross-sectional design and a retrospective reporting of life events.
- Definitive, causal conclusions regarding the effects of sexual abuse on suicidal behaviour would require longitudinal data.
- The implications of the findings may be limited to clinical populations of women with MDD and childhood sexual abuse histories.

Method

Data were obtained from prior[26] and ongoing trials of a psychosocial treatment for women with reported childhood sexual abuse histories and MDD. The study protocol was approved by the Institutional Review Board of the University of Rochester Medical Center prior to implementing the study, and was reviewed and re-approved annually. Only pretreatment baseline data are reported.

Subjects

The sample included 106 women with childhood sexual abuse histories and current MDD in a community mental health centre. The mean age of participants was 35 years (SD 9.81, range 19 to 57); 53 (50.0%) were African American, 53 (50.0%) were White, and 12 (11.3%) identified an Hispanic ethnic origin. Fifty-five women (51.9%) had children aged 18 years and younger; 41 of these mothers were living without a spouse or partner. Sixty-five women (61.3%) were unemployed and 31 (29.2%) were employed full-time. Thirty-eight (35.8%) women had some college education, 50 (47.2%) had a high school diploma or equivalent, and 18 (17.0%) had less formal education. Sixty women (56.6%) had public assistance support as their major source of income, which included social services, disability benefits, or unemployment benefits; the other 46 women (43.4%) had private sources of income.

Abbreviations

BPD	borderline personality disorder
CTQ	Childhood Trauma Questionnaire
DSM	Diagnostic and Statistical Manual of Mental Disorders
IPV	intimate partner violence
MDD	major depressive disorder
PTSD	posttraumatic stress disorder
SCID	Structured Clinical Interview for DSM-IV
TLEQ	Traumatic Life Events Questionnaire

Data Collection

Over a 42-month period from 2003 to 2006, 1080 women seeking treatment in a community mental health centre were screened for potential study eligibility during intake interviews. Eligibility criteria for referral to the study were depressive symptoms and a self-reported history of sexual abuse before the age of 18 years. A clinical research coordinator, certified in human subjects protection, conducted the informed consent process with every woman at the beginning of the pretreatment assessment. The participant read the consent form, or had it read to her by the research coordinator, and was asked questions to determine her understanding of the consent. Women provided consent to participate by signing the consent form and were provided a signed copy to retain.

Inclusion criteria were current MDD, established through the SCID-I,[27] and a sexual abuse history, established through a structured clinical interview.[28] Consensus diagnostic conference meetings were conducted by a clinical psychologist (study principal investigator), a psychiatrist (study co-investigator), and the research staff who conducted the research interviews. Consensus multiaxial DSM-IV diagnoses were made based on SCID interview data and record review. Sexual abuse was defined as: any unwanted sexual contact; or any sexual contact

with a family member aged 5 or more years older than the patient that occurred prior to the patient being aged 18 years. Sexual contact was defined as physical contact of a sexual nature, ranging from fondling to sexual intercourse. All participants reported non-consensual sexual contact before they were aged 18 years by at least 1 perpetrator. Exclusion criteria were psychosis, schizophrenia, bipolar disorder, mental retardation, and active substance abuse or dependence.

Among the 163 women screened as potentially eligible, 133 agreed to participate in a baseline evaluation designed to establish eligibility for the trial. Twenty-three women did not meet inclusion criteria and 4 did not complete the baseline evaluation, leaving 106 participants who met criteria for MDD and a history of childhood sexual abuse.

Materials

Childhood sexual abuse severity was characterized using the CTQ.[29] The CTQ is a self-report instrument that instructs participants to rate the frequency with which events occurred when they were growing up, using a 5-point scale ranging from never true (1) to very often true (5). The abuse severity cut-point guidelines recommended by Bernstein et al[29] were used: none (score of 5 or less), low (score of 6 to 7), moderate (score of 8 to 12), and severe (score greater than 12). Most of the women (91.5%: 97/106) had experienced severe to extreme sexual abuse.

Childhood sexual abuse characteristics were assessed using a structured clinical interview.[28] Directions to this interview state that questions concern

> non-consensual sexual contact you may have experienced in childhood or adolescence. By non-consensual contact, we mean: You did not willingly agree to the contact; you were forced.

The relationship of the perpetrator(s) is queried with:

> Before you were 18 years old, did any of the following people behave in a sexual ways towards you?

which is followed by a checklist of possible relationships ranging from familial, to friend or acquaintance, to person in a position of authority, to stranger. Questions about the age of onset of the sexual abuse, whether the abuse involved intercourse, and whether the abuse involved physical force followed. Variables of interest were coded dichotomously (1 compared with 0): abuse onset before the age of 6 years, compared with abuse onset after the age of 6 years; abuse involving force, compared with no force; a parent figure or parent perpetrator, compared with another perpetrator; and abuse involving intercourse, compared with no intercourse. The parent figure or parent perpetrator category included parents, step-parents, and a mother's intimate partner(s). Physical force includes a range of acts, from holding the person down to physical violence.

A suicide attempt history was measured using the Lifetime Suicide Attempt Self-Injury Interview.[30] This measure provides a count and categorization of suicide attempts. Suicide attempts were defined as self-harming behaviours with intent to die or ambivalence about intent to die. Suicide attempt status was coded dichotomously: presence of at least one suicide attempt in the past (ever-attempters) compared with the absence of lifetime suicide attempts (non-attempters). Multiple suicide attempter status was coded in a binary format: a history of 2 or more lifetime suicide attempts (multiple-attempters) compared with a history of 1 suicide attempt (single-attempters). The woman's age at the time of the first lifetime suicide attempt was recorded.

Current PTSD was evaluated with the SCID-I Axis I disorders.[27] PTSD diagnosis was coded in a dichotomous format: as present (1) when the criteria for current PTSD or PTSD in partial remission were met, and as absent (0) when the criteria for these diagnoses were not met. The SCID-II personality disorders, BPD module,[31] was used to assess BPD. The SCID-II is a semi-structured interview developed for the assessment of DSM-IV personality disorders; in our study, only the BPD module was used. As with PTSD, a dichotomous coding system (present, compared with absent) was used for BPD.

Several covariates were entered into the multivariate analyses. A history of alcohol or substance dependence[10,32,33] and chronic depression[34] were controlled because of their documented associations with suicidal behaviour.[35] Both diagnoses were established by consensus based on the SCID-I[27] and were coded dichotomously. Chronic depression was defined as: current major depressive episode of at least 2 years' duration, current MDD superimposed on a pre-existing dysthymic disorder, or recurrent MDD with incomplete remission between episodes over a minimum of a 2-year duration prior to treatment.[36]

Because we wanted to determine whether the remote event of sexual abuse was predictive over and above abuse experiences in adulthood,[19,37,38] sexual assault and IPV in adults aged 18 years and older were assessed via single questions on the TLEQ[39] and coded dichotomously (present, compared with absent). Adult exposure to IPV and sexual assault were assessed by 2 items on the TLEQ. Adulthood sexual trauma was assessed by the question, "After your 18th birthday: Did anyone touch sexual parts of your body or make you touch sexual parts of their body against your will or without consent?" Women were classified as having experienced adult IPV according to their response to the question, "Have you ever been slapped, punched, kicked, beaten up, or otherwise physically hurt by your spouse (or former spouse), a boyfriend/girlfriend, or some other intimate partner?" The TLEQ has been shown to have good convergent validity with other traumatic life events interviews[39]; for women, the percentage of occurrence and nonoccurrence agreement of traumatic life events was 91%. Test–retest reliability with various populations was also

Table 1 Univariate analyses: differences between groups of ever-attempters (ever-A), compared with non-attempters (non-A), and single-attempters (single-A), compared with multiple-attempters (multiple-A) in terms of childhood sexual abuse, severity parameters, and diagnostic covariates

Variable	Model 1, *n* (%) Ever-A (*n* = 59)	Non-A (*n* = 47)	χ^{2a}	*P*	Model 2, *n* (%) Single-A (*n* = 30)	Multiple-A (*n* = 29)	χ^{2a}	*P*
Childhood sexual abuse severity parameters								
Intercourse	43 (72.9)	35 (74.5)	0.03	0.86	22 (73.3)	21 (72.4)	0.01	0.94
Parent figure	15 (25.4)	10 (21.3)	0.25	0.62	4 (13.3)	11 (37.9)	4.71	0.03
Force used	32 (54.2)	22 (46.8)	0.58	0.45	12 (40)	15 (51.7)	0.82	0.37
Onset before age 6 years	22 (46.8)	24 (40.7)	0.40	0.53	9 (30)	15 (51.7)	2.88	0.09
Diagnostic covariates								
BPD	24 (40.7)	12 (25.5)	2.68	0.10	7 (23.3)	17 (58.6)	7.61	0.006
PTSD	44 (74.6)	24 (51.1)	6.29	0.01	20 (66.7)	24 (82.8)	2.01	0.16

[a] *df* = 1

Table 2 Multivariate analyses: separate logistic regression analyses of variables predicting suicide attempter status: model 1 ever-attempter (ever-A), compared with non-attempter (non-A) status, and model 2 multiple-attempter (multiple-A), compared with single-attempter status (single-A), controlling for covariates[a]

Variable	Model 1 Ever-A compared with non-A B	Wald (*df* =1)	OR (CI 95%)	*P*	Model 2 Multiple-A compared with single-A B	Wald (*df* =1)	OR (CI 95%)	*P*
Childhood sexual abuse								
Intercourse	–0.45	0.65	0.64 (0.21–1.92)	0.42	–0.55	0.45	0.58 (0.12–2.85)	0.50
Parent figure	–0.66	1.41	0.52 (0.18–1.53)	0.24	2.51	6.20	12.27 (1.71–88.33)	0.01
Physical force	0.26	0.23	1.29 (0.45–3.68)	0.63	0.02	<0.001	1.02 (0.19–5.36)	0.98
Onset before age 6 years	–0.75	2.49	0.47 (0.19–1.20)	0.11	0.86	1.40	2.36 (0.57–9.74)	0.24

[a] The covariates included age, race or ethnic origin (White as the reference group), history of drug or alcohol dependence, chronic depression, adulthood sexual assault, and IPV.

Model 1. According to the Hosmer-Lemeshow[29] goodness-of-fit test, the overall model fit was acceptable (n = 106; χ^2 = 6.21, *df* = 8, *P* = 0.62). Overall classification was 70.8%; correction classification rates were 63.8% for no history of suicide attempts and 76.3% for ever-attempter status.

Model 2. Overall model fit was acceptable (8, n = 106; χ^2 = 18.65, *df* = 8, *P* = 0.02), and overall classification was 83.1%; 86.7% for single-attempter status and 79.3% for multiple-attempter status

shown, with overall agreement rates for adult sexual assault and IPV ranging from 79% to 83%.

Statistical Methods

Independent variables were 4 childhood sexual abuse characteristics: intercourse, a parent figure perpetrator, physical force, and onset before the age of 6 years. The 2 dichotomous dependent variables were lifetime history of: suicide attempt (no attempt, compared with 1 or more attempts) and multiple suicide attempts (1 attempt, compared with more than 1 attempt). Chi-square analyses were conducted to examine associations between independent and dependent variables, as well as independent variables and covariates. In 2 multivariate analyses, logistic regression was used to examine independent associations between abuse characteristics and the 2 dependent variables, controlling for demographics (age and race), current PTSD, BPD, adult sexual assault, adult IPV, history of alcohol and (or) substance dependence, and chronic depression. Models were evaluated using the Hosmer-Lemeshow goodness-of-fit test.[40] The SPSS Version 15 (SSPS Inc, Chicago, IL) for Windows was used for statistical analyses.

Results

Sample Characteristics

Sixty-eight women (64.2%) had a diagnosis of PTSD and 36 (34.0%) had a diagnosis of BPD. Fifty-nine women (55.7%) reported at least 1 lifetime suicide attempt (ever-attempters), and 29 (27.4%) reported multiple suicide attempts. The overwhelming majority of first lifetime suicide attempts were preceded by childhood sexual abuse

(57 out of 59 women; 96.6%). The most common suicide attempt method used was intentional overdose.

Regarding sexual abuse characteristics, 97 women (91.5%) reported severe sexual abuse on the CTQ. Abuse involved sexual intercourse for 78 women (73.6%) and physical force for 73 (68.9%) women. Thirty-two women (30.2%) reported sexual abuse by a parent or a parent figure. Forty-nine women (46.2%) reported sexual abuse before the age of 6 years.

Univariate Analyses

Women with a history of suicide attempts (ever-attempters) were more likely to have a current PTSD diagnosis (44 of 59 ever-attempters; 74.6%) than those without a history of suicide attempts (24 of 47 non-attempters; 51.1%), ($\chi^2 = 6.29$, $df = 1$, $P = 0.01$) (Table 1). Women who had attempted suicide multiple times (17 of 29; 58.6%) were more likely to be diagnosed with BPD, compared with those who had made 1 suicide attempt (7 of 30; 23.3%), $\chi^2 = 7.61$, $df = 1$, $P = 0.006$). A greater proportion of the former had a history of childhood sexual abuse with a parent figure or parent perpetrator (12 of 29; 41.4%, compared with 5 of 30; 16.7%), ($\chi^2 = 4.39$, $df = 1$, $P = 0.04$).

Multivariate Analyses

Among the hypothesized childhood sexual abuse predictors, abuse perpetrated by a parent figure or parent increased the odds of having made multiple suicide attempts 12.27-fold ($P = 0.01$) (Table 2). Abuse involving force or intercourse did not increase the odds of either multiple or lifetime suicide attempts.

One covariate was associated with increased odds of multiple attempts: younger women were more likely to have made multiple attempts (OR 0.92; 95 % CI 0.85 to 1.00; $P = 0.05$). Three covariates were associated with ever-attempter status: PTSD (OR 3.61; 95% CI 1.22 to 10.70; $P = 0.02$); chronic depression (OR 2.64; 95% CI 0.996 to 6.99, $P = 0.05$); and White racial status (OR 2.97; 95% CI 1.17 to 7.55; $P = 0.02$).

Discussion

In this sample of women with MDD and sexual abuse histories, having a parent or parent figure as the perpetrator was associated with dramatically increased odds of multiple suicide attempts. This finding is consistent with a prior study,[22] which demonstrated a relation between the kinship to the perpetrator and the number of suicide attempts in a community sample. Our study, in contrast, focuses on a clinical sample of women at high risk for suicidal behaviour and seeks to inform the clinical assessment of suicide risk, apart from psychiatric diagnoses of BPD and PTSD. We have demonstrated that perpetrator status has a strong and independent relation to suicide attempt histories. PTSD was associated with having ever attempted suicide, but not with multiple attempts. Although we observed an association between BPD and multiple-attempter status in univariate analyses, that relation is confounded by one or more variables in the multivariate analysis. It may also be that certain features of BPD, such as impulsivity,[41] rather than the diagnosis per se, are related to propensity to multiple suicidal behaviour attempts.

According to our findings, women with MDD who have been sexually abused by a parent or parent figure may be at a higher risk for multiple suicide attempts, and close monitoring for suicide risk may be warranted. Prior studies have indicated a higher risk for future suicidal behaviour with increasing numbers of suicide attempts.[23–25] Sexual assault by a parent or parent figure is typically accompanied by other family adversities, including parental conflict[21] and parental psychopathology.[10] Joiner et al[20] has described a person's suicide attempts as a response to perceived burdensomeness, thwarted belonging, and acquired capacity for self-harm. The pain, shame, and alienation of the abused child growing up in such profoundly troubled families may be the bellwether for interpersonal risk factors in adulthood.

Several limitations in these data should be acknowledged. First, the study's cross-sectional design precludes causal conclusions. Longitudinal studies are warranted to address hypotheses regarding causal pathways. Second, findings may not be generalizable to men and to women with sexual abuse histories not seeking mental health treatment,[42] and to those diagnosed with psychosis, schizophrenia, bipolar disorder, mental retardation, and active substance abuse or dependence. Although our sample is limited to women with MDD and childhood sexual abuse histories, our research[43] has found that this group represents about 15% to 20% of treatment-seeking women in community mental health care. Third, biases in retrospective reporting of abuse and suicide attempt histories are possible. However, empirical evidence supports the reliability and validity of retrospective reports of suicide attempts.[30] A recent large-scale study[44] found that a self-report measure of childhood sexual abuse had long-term stability, construct validity, and evidence of familial corroboration. Reviews of the validity of retrospective reporting of childhood abuse have concluded that false positives are rare, whereas false negative are not rare.[45,46] In our study, false negatives (that is, denying sexual abuse by a parent when it did occur) would mitigate against finding between-group (parent abuse, compared with no parent abuse) differences. Further, studies have shown that the presence of psychiatric diagnoses, including depression, do not affect the reliability of childhood abuse reports.[5,47] Fourth, we acknowledge that the age of abuse onset dichotomization (that is, onset before the age of 6 years, compared with abuse onset after the age of 6 years) can be construed as arbitrary, yet some type of categorization is necessary for scientific communication, and this one had been used effectively in prior research.[19] Fifth, associations between sexual abuse characteristics other than parent figure or parent perpetrator and suicide attempt history may be attenuated by the sample size. Finally, adult exposure to IPV or sexual assault was assessed through single-item questions from the TLEQ.[39] Other forms of childhood abuse or trauma, which are frequently co-occurring with sexual

abuse, could have an effect on suicidal behaviours, as has been shown in several studies.[48] Data on PTSD chronicity, which could be associated with multiple-attempter status, were not available.

Conclusions

Our findings suggest that the clinical assessment of suicide risk among women with MDD and histories of sexual abuse could be informed by the identification of particular sexual abuse characteristics. People who attempt suicide more than once are more likely to die by suicide eventually,[25,49] and typically have poor problem solving skills, difficulty regulating emotions, and more conflictual relationships.[23] More specifically, current findings suggest that women abused by a parent or parent figure could require ongoing monitoring for suicide risk, intensive safety planning, and, possibly, developmentally informed treatment. We recognize that legitimate concerns can be raised in response to advising clinicians and researchers to inquire about specifics of childhood trauma histories,[50] including the potential destabilizing effects of traumatic memories and the time constraints of brief psychotherapy. Nevertheless, our findings support the view that identifying specific characteristics of abuse could be critical in determining the level of ris k for repetitive attempts and suicide.[20]

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References

1. Brown J, Cohen P, Johnson JG, et al. Childhood abuse and neglect: specificity of effects on adolescent and young adult depression and suicidality. J Am Acad Child Adolesc Psychiatry. 1999;38:1490–1496.
2. Molnar BE, Buka SL, Kessler RC. Child sexual abuse and subsequent psychopathology: results from the National Comorbidity Survey. Am J Public Health. 2001;91:753–760.
3. Roy A, Janal M. Family history of suicide, female sex, and childhood trauma: separate or interacting risk factors for attempts at suicide? Acta Psychiatr Scand. 2005;112:367–371.
4. Bebbington PE, Cooper C, Minot S, et al. Suicide attempts, gender, and sexual abuse: data from the 2000 British Psychiatric Morbidity Survey. Am J Psychiatry. 2009;166:1135–1140.
5. Fergusson DM, Woodward LJ, Horwood LJ. Risk factors and life processes associated with the onset of suicidal behaviour during adolescence and early adulthood. Psychol Med. 2000;30:23–39.
6. Dinwiddie S, Heath AC, Dunne MP, et al. Early sexual abuse and lifetime psychopathology: a co-twin-control study. Psychol Med. 2000;30:41–52.
7. Mueser KT, Goodman LB, Trumbetta SL, et al. Trauma and posttraumatic stress disorder in severe mental illness. J Consult Clin Psychol. 1998;66:493–499.
8. Zlotnick C, Ryan CE, Miller IW, et al. Childhood abuse and recovery from major depression. Child Abuse Negl. 1995;19:1513–1516.
9. Arnow BA. Relationships between childhood maltreatment, adult health and psychiatric outcomes, and medical utilization. J Clin Psychiatry. 2004;65:10–15.
10. Molnar BE, Berkman LF, Buka SL. Psychopathology, childhood sexual abuse and other childhood adversities: relative links to subsequent suicidal behaviors in the US. Psychol Med. 2001;31:965–977.
11. Zlotnick C, Mattia J, Zimmerman M. Clinical features of survivors of sexual abuse with major depression. Child Abuse Negl. 2001;25:357–367.
12. Kessler RC, Borges G, Walters E. Prevalence and risk factors for lifetime suicide attempts in the National Comorbidity Survey. Arch Gen Psychiatry. 1999;56:617–626.
13. Soloff PH, Lynch KG, Kelly TM, et al. Characteristics of suicide attempts of patients with major depressive episode and borderline personality disorder: a comparative study. Am J Psychiatry. 2000;157:601–608.
14. Wilcox HC, Storr CL, Breslau N. Posttraumatic stress disorder and suicide attempts in a community sample of urban American young adults. Arch Gen Psychiatry. 2009;66:305–311.
15. Mehlum L, Friis S, Vaglum P, et al. The longitudinal pattern of suicidal behaviour in borderline personality disorder: a prospective follow-up study. Acta Psychiatr Scand. 1994;90:124–130.
16. Zanarini MC, Frankenburg FR, Reich DB, et al. The 10-year course of physically self-destructive acts reported by borderline patients and axis II comparison subjects. Acta Psychiatr Scand. 2008;117:177–184.
17. Oquendo MA, Friend JM, Halberman B, et al. Association of comorbid posttraumatic stress disorder and major depression with greater risk for suicidal behavior. Am J Psychiatry. 2003;160:580–582.
18. Oquendo MA, Brent DA, Birmaher B, et al. Posttraumatic stress disorder comorbid with major depression: factors mediating the association with suicidal behavior. Am J Psychiatry. 2005;162:560–566.
19. Kaplan ML, Asnis GM, Lipschitz DS, et al. Suicidal behavior and abuse in psychiatric outpatients. Compr Psychiatry. 1995;36:229–235.
20. Joiner TE Jr, Sachs-Ericsson NJ, Wingate LR, et al. Childhood physical and sexual abuse and lifetime number of suicide attempts: a persistent and theoretically important relationship. Behav Res Ther. 2007;45:539–547.
21. Nelson EC, Heath AC, Madden PAF, et al. Association between self-reported childhood sexual abuse and adverse psychosocial outcomes: results from a twin study. Arch Gen Psychiatry. 2002;59:139–145.
22. Brezo J, Paris J, Vitaro F, et al. Predicting suicide attempts in young adults with histories of childhood abuse. Br J Psychiatry. 2008;193:134–139.
23. Forman E, Berk MS, Henriques GR, et al. History of multiple suicide attempts as a behavioral marker of severe psychopathology. Am J Psychiatry. 2004;161:437–443.
24. Miranda R, Scott M, Hicks R, et al. Suicide attempt characteristics, diagnoses, and future attempts: comparing multiple attempters to single attempters and ideators. J Am Acad Child Adolesc Psychiatry. 2008;47:32–40.
25. Zonda T. One hundred cases of suicide in Budapest: a case controlled psychological autopsy study. Crisis. 2006;27:125–129.
26. Talbot NL, Conwell Y, O'Hara MW, et al. Interpersonal psychotherapy for depressed women with sexual abuse histories: a pilot study in a community mental health center. J Nerv Ment Dis. 2005;193:847–850.
27. First MB, Spitzer RL, Gibbon M, et al. Structured Clinical Interview for DSM-IV-TR Axis I Disorders, Research Version, Patient Edition (SCID-I/P). New York (NY): Biometrics Research, New York State Psychiatric Institute; 2002.
28. Talbot NL, Houghtalen RP, Duberstein PR, et al. Effects of group treatment for women with a history of childhood sexual abuse. Psychiatr Serv. 1999;50:686–692.

29. Bernstein DP, Fink L, Handelsman L, et al. Initial reliability and validity of a new retrospective measure of child abuse and neglect. Am J Psychiatry. 1994;151:1132–1136.
30. Linehan MM, Comtois KA, Brown MZ, et al. Suicide attempt self-injury interview (SASII): development, reliability, and validity of a scale to assess suicide attempts and intentional self-injury. Psychol Assess. 2006;18:303–312.
31. First MB, Gibbon M, Spitzer RL, et al. Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II). Washington (DC): American Psychiatric Press, Inc; 1997.
32. Roy A. Relationship of childhood trauma to age of first suicide attempt and number of attempts in substance dependent patients. Acta Psychiatr Scand. 2004;109:121–125.
33. Nock MN, Kessler RC. Prevalence of and risk factors for suicide attempts vs. suicide gestures: analysis of the National Comorbidity Survey. J Abnorm Psychol. 2006;115:616–623.
34. Klein DN, Schwartz JE, Rose S, et al. Five-year course and outcome of dysthymic disorder: a prospective, naturalistic follow-up study. Am J Psychiatry. 2000;157:931–939.
35. Oquendo MA, Currier D, Mann JJ. Prospective studies of suicidal behavior in major depressive and bipolar disorders: what is the evidence for predictive risk factors? Acta Psychiatr Scand. 2006;114:151–158.
36. Keller MB, McCullough JP, Klein DN, et al. A comparison of nefazodone, the cognitive behavior-analysis system of psychotherapy, and their combination for the treatment of chronic depression. N Engl J Med. 2000;342:1462–1470.
37. Kaslow NJ, Thompson MP, Okun A, et al. Risk and protective factors for suicidal behavior in abused African American women. J Consult Clin Psychol. 2002;70:311–319.
38. Romans SE, Martin JL, Anderson JC, et al. Sexual abuse in childhood and deliberate self-harm. Am J Psychiatry. 1995;152:1336–1342.
39. Kubany ES, Haynes SN, Leisen MB, et al. Development and preliminary validation of a brief broad-spectrum measure of trauma exposure: the Traumatic Life Events Questionnaire. Psychol Assess. 2000;12:210–214.
40. Hosmer DW, Lemeshow S. Applied logistic regression. 2nd ed. New York (NY): Wiley and Sons; 2000.
41. Brodsky BS, Malone KM, Ellis SP. Characteristics of borderline personality disorder associated with suicidal behavior. Am J Psychiatry. 1997;154:1715–1719.
42. Ehnvall A, Parker G, Hadzi-Pavlovic D, et al. Perception of rejecting and neglectful parenting in childhood relates to lifetime suicide attempts for females—but not for males. Acta Psychiatr Scand. 2008;117:50–56.
43. Talbot NL, Chaudron LH, Ward EA, et al. A randomized effectiveness trial of interpersonal psychotherapy for depressed women with sexual abuse histories. Psych Serv. 2011;62:374–380.
44. Nelson EC, Lynskey MT, Heath AC, et al. A family study of adult twins with and without a history of childhood abuse: stability of retrospective reports of maltreatment and associated family measures. Twin Res Hum Genet. 2010:13:121–130.
45. Hardt J, Rutter M. Validity of adult retrospective reports of adverse childhood experiences: review of the evidence. J Child Psychol Psychiatry. 2004;45:260–273.
46. Widom CS, Morris S. Accuracy of adult recollections of childhood victimization, part 2: childhood sexual abuse. Psychol Assess. 1997;9:34–46.
47. Brewin CR, Andrews B, Gotlib IH. Psychopathology and early experience: a reappraisal of retrospective reports. Psychol Bull. 1993;113:82–98.
48. Bruffaerts R, Demyttenaere K, Borges G, et al. Childhood adversities as risk factors for onset and persistence of suicidal behavior. Br J Psychiatry. 2010;197:20–27.
49. Cavanagh JTO, Owens DGC, Johnstone EC. Suicide and undetermined death in southeast Scotland: a case–control study using the psychological autopsy method. Psychol Med. 1999;29:1141–1149.
50. Becker-Blease KA, Freyd JJ. Research participants telling the truth about their lives: the ethics of asking and not asking about abuse. Am Psychol. 2006;61:218–226.