

Bodily Self-Harm and Its Relationship to Childhood Abuse Among Women in a Primary Care Setting

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Past research has demonstrated a relationship between childhood abuse and subsequent self-injurious behavior. However, this research typically has taken place in mental health settings, focused on childhood sexual or physical abuse, and has explored a limited number of self-injury variables (most commonly suicide attempts). Among 147 women in a primary care setting, the authors explored the relationship between five forms of childhood abuse or trauma and three types of bodily self-injury. In univariate analyses, all forms of abuse except physical neglect were related to an increased likelihood of bodily self-harm. In a logistic regression analysis, sexual abuse, physical abuse, and witnessing violence were uniquely related to an increased likelihood of bodily self-injury. The results suggest that the direct experience or observation of body violation may developmentally precede subsequent bodily self-injury in some individuals.

Numerous psychiatric problems are associated with childhood histories of abuse (Briere, 1988; Polusny & Follette, 1995). Clinical manifestations in adults may include post traumatic stress disorder (Kiser, Heston, Millsap, & Pruitt, 1991), depression (Kaufman, 1991; Kiser et al., 1991; Margo & McLees, 1991), substance abuse (Dembo et al., 1989; Hart, Mader, & Griffith, 1989; Margo & McLees, 1991; Swett, Cohen, Surrey, Compaine, & Chavez, 1991), eating disorders (Welch & Fairburn, 1994), hypochondriasis (Barsky, Wool, Barnett, & Cleary, 1994), and borderline personality disorder (Bryer, Nelson, Miller, & Krol, 1989; Herman, Perry, &



van der Kolk, 1989; Ludolph et al., 1990; Ogata et al., 1990). These data suggest that maltreatment or abuse in childhood may culminate in a variety of pathologies in adulthood (Brown & Finkelhor, 1986; Hart & Brassard, 1987; Malinosky-Rummell & Hansen, 1993; Weaver & Clum, 1995).

In addition to the preceding psychiatric sequelae, it has been suggested that abuse in childhood may, among at least some individuals, be related to self-injurious behavior in adulthood (Ross & McKay, 1979; Terr, 1991; van der Kolk, Perry, & Herman, 1991). Supporting this relationship, Brown and Anderson (1991) reported an association between suicide gestures and attempts, and physical and sexual abuse among a large sample of psychiatric inpatients. Darche (1990) found that, among adolescent female psychiatric inpatients, incest or sexual abuse was associated with self-mutilation. Van der Kolk et al. (1991) reported on a mixed clinical and nonclinical sample of individuals and found a relationship between sexual and physical abuse, and self-cutting and suicide attempts. As a final example, Briere and Zaidi (1989) found a relationship between sexual abuse, and self-mutilation and suicide attempts.

In addition to studies in mental health settings exploring the relationship between childhood abuse and self-injurious behavior, there have been several studies in nonmental health settings. For example, Kinzler and Biebl (1992) reported that among more than 1,000 nonpatients, sexual abuse was associated with self-injurious behavior (the specific behaviors were not described). Romans, Martin, Anderson, Herbison, and Mullen (1995) found that, among women in a New Zealand community sample, sexual abuse in childhood was associated with suicide attempts in adulthood. Gould et al. (1994), explored abuse histories among primary care patients and their relationship to suicide attempts. These investigators found that the odds ratio for suicide attempts in this sample were 6.4 for any type of abuse, 4.1 for sexual abuse, 3.7 for emotional abuse, and 1.2 for physical abuse.

In summary, earlier studies appear to indicate at least that, among some individuals, a relationship exists between a childhood history of abuse and subsequent self-injurious behavior in adulthood. However, the limitations of the previous studies in this area include (a) the predominant use of mental health

populations for study; (b) the predominant use of sexual abuse as a trauma variable for study, with occasional exceptions (e.g., the study by Gould et al., 1994); and (c) the predominant use of suicide attempts as the self-harm variable. The current study was undertaken to explore whether relationships between abuse in childhood and self-injury in adulthood extend beyond mental health populations, and to broaden study variables to include multiple forms of abuse (i.e., physical and emotional abuse, physical neglect, witnessing violence), as well as multiple self-injury behaviors that may not have functioned as suicide attempts.

METHOD

PARTICIPANTS

Participants were 147 women who presented for routine gynecological care to a female family physician in a health maintenance organization (HMO). Participants ranged in age from 18 to 49 years with a mean age of 33.99 years ($SD = 8.93$). Of the 147 women, 124 (84.4%) were White, 11 (7.5%) were Native American, 4 (2.7%) were Black, 2 (1.4%) were Asian, 2 (1.4%) were Hispanic, and the remaining 4 (2.7%) indicated some other ethnic/racial identity. The majority of participants (65.3%) were currently married and most (61.9%) had some post-high school education or training.

MEASURES

History of Trauma

Research participants completed a self-report questionnaire that explored their exposure to five different areas of trauma or abuse (i.e., each respondent was asked to indicate whether she had ever experienced each of the five forms of trauma described in the questionnaire). The five trauma categories consisted of sexual, physical, and emotional abuse; physical neglect; and witnessing violence. *Sexual abuse* was defined for respondents as “any

sexual activity against your will." *Physical abuse* was defined as "any physical insult against you that would be considered socially inappropriate by either yourself or others and that left visible signs of damage on your body either temporarily or permanently, or caused pain that persisted beyond the 'punishment.'" *Emotional abuse* was defined as verbal and nonverbal behaviors that were experienced as "hurting and controlling you, not kidding or teasing you." *Physical neglect* was defined as "basic life needs not being met." *Witnessing violence* was defined as "the first-hand observation of physical violence that did not directly involve you." Respondents were asked to indicate the age ranges during which the abuse or trauma occurred; only those individuals who indicated first experiencing the particular abuse prior to the age of 18 years were identified as having experienced childhood abuse or trauma.

History of Self-Harm Behavior

The self-report questionnaire also explored whether respondents had ever intentionally (i.e., on purpose) engaged in each of three behaviors: cutting oneself, hitting oneself, or head banging. These behaviors reflect intentional maltreatment of the body, but do not necessarily represent suicidal behavior. Response choices were simply "yes" or "no" for each item.

PROCEDURE

Upon presenting to the HMO for routine gynecological care, patient candidates between the ages of 18 and 50 were introduced to the study by a female family physician. Additional exclusion criteria for participation were cognitive impairment and concomitant medical illness that would be severe enough to preclude an individual's ability to participate in the study. Those who agreed to participate provided written informed consent and were taken to a private office to complete the research questionnaire. Of the 154 women invited to participate, the 147 who agreed and completed all measures represent a 95.5% participation rate.

RESULTS

Of the 147 women, 32 (21.8%) reported having experienced childhood sexual abuse, 27 (18.4%) physical abuse, 40 (27.2%) emotional abuse, 10 (6.8%) physical neglect, and 44 (29.9%) witnessing violence. Because endorsement of any one of the three self-harm behaviors was infrequent, we categorized respondents according to whether one or more of those behaviors was endorsed. Thirty-three (22.4%) women reported having engaged in at least one of the forms of bodily self-harm (i.e., cutting oneself, hitting oneself, head banging). The rates of self-harm behavior as a function of abuse history are presented in Table 1. Note that the likelihood of having engaged in bodily self-harm was greater among women who had experienced sexual abuse, physical abuse, emotional abuse, or witnessing violence, but was not greater among women reporting a history of physical neglect.

Of the 83 women who reported experiencing at least one of the five types of maltreatment, 41 (49.4%) reported just one type of abuse (i.e., one half of the women with an abuse history reported experiencing multiple types of abuse). To address which forms of abuse in childhood are uniquely predictive of an increased likelihood of having engaged in bodily self-harm behavior, we entered sexual abuse, physical abuse, emotional abuse, and witnessing violence into a logistic regression analysis (Norusis, 1990) to predict having engaged in the endorsed self-harm behaviors. In this way, we were able to investigate the predictive power of each form of abuse while statistically controlling for the effects of the other three abuse variables. The results of these analyses are presented in Table 2. Note that even after statistically controlling for the effects of the other forms of abuse in the equation, sexual abuse, physical abuse, and witnessing violence were each independently related to having engaged in bodily self-harm (i.e., after controlling for these types of abuse, emotional abuse was no longer related to bodily self-harm)

DISCUSSION

Our findings indicate that having engaged in bodily self-harm in adulthood is more likely among women who have experienced

TABLE 1
Percentage of Women^a Who Have Engaged in Bodily Self-Harm
Behavior as a Function of Childhood History of Abuse

	<i>Rates of Bodily Self-Harm^b</i>		χ^2 (df = 1)	p
	<i>Indicated This</i>	<i>Denied This</i>		
Type of Abuse	Type of Abuse	Type of Abuse		
Childhood sexual abuse	43.8	16.5	10.66	<.001
Childhood physical abuse	48.1	16.7	12.55	<.0005
Childhood emotional abuse	37.5	16.8	7.15	<.008
Childhood physical neglect	40.0	21.1	1.90	<.17
Childhood witnessing of violence	43.2	13.6	15.50	<.0001

a. $N = 147$.

b. Cutting oneself, hitting oneself, and/or head banging.

TABLE 2
Results of Logistic Regression Analyses to Predict Bodily Self-Harm Behavior

<i>Predictors</i>	B	S.E.	Wald	df	<i>Partial R</i>	p
Childhood sexual abuse	1.02	.48	4.63	1	.13	<.03
Childhood physical abuse	1.04	.54	3.76	1	.11	<.05
Childhood emotional abuse	.46	.50	.83	1	.00	<.37
Childhood witnessing violence	1.22	.45	7.35	1	.18	<.007

NOTE: Model Chi-square ($N = 147$, $df = 4$) = 27.05, $p < .0001$; Goodness of fit ($df = 142$) = 141.80, $p < .49$. 81.63% of cases correctly classified.

a childhood history of sexual abuse, physical abuse, or witnessing violence (note that one half of the subjects with a childhood abuse history had experienced multiple forms of abuse). The association between childhood abuse and bodily self-injury in adulthood has been previously indicated by various researchers in studies primarily examining mental health populations, the trauma variables of sexual or physical abuse, and suicide attempts as the self-harm variable. The findings of the current study (a) support the less frequently reported association between childhood abuse and bodily self-injury in nonmental health samples of women, and (b) suggest that specific forms of abuse (i.e., sexual abuse, physical abuse, witnessing violence) may be unique mediating variables for subsequent bodily self-harm.

In examining the trauma variables uniquely related to bodily self-harm in the current study, sexual abuse, physical abuse, and witnessing violence are collectively characterized by the unwanted violation of the body boundaries between individuals, experienced either directly or through observation. Indeed, given that young children have less clearly consolidated interpersonal boundaries, some children may experience the observation of an assault on another individual as an assault on themselves, particularly if the victim is closely related (e.g., the child's mother). The current results suggest, therefore, that the childhood experience of the violation of body boundaries, either directly or indirectly, is a predisposing factor to bodily self-injury in adulthood among some individuals, perhaps through subsequent devaluing or dehumanization of one's own body (physical self).

It is important to stress that, although these findings indicate an association between some forms of childhood abuse (i.e., sexual and physical abuse, witnessing violence) and bodily self-harm in adulthood, there are undoubtedly many variables that mediate this relationship (e.g., life stressors, psychopathology). Therefore, these forms of childhood abuse may be seen as risk factors, rather than absolute predictors, of self-harm behavior in adulthood. Also, note in Table 1 that the majority of women who had experienced each form of childhood abuse denied ever having engaged in any of the self-harm behaviors. Further research is needed to investigate the interactive combination of variables that dispose some abused individuals toward self-harm behavior, as well as those variables that may serve a protective function against such self-harm sequela.

It is also important to note the primary limitations of the current study. First, childhood abuse history was assessed through retrospective self-report. The survey questions pertaining to childhood abuse history were written for the current study, so issues of validity and reliability remain unaddressed. These questions were face valid, requiring the respondent to label her experiences as abusive. Second, the measure of bodily self-harm was limited to three specific behaviors. Other forms of bodily self-harm that were not assessed in the current study (e.g., self-burning) may be relevant correlates of childhood abuse. Last, the sample was relatively homogenous with regard to ethnicity and education. The female respondents were primarily White and well-

educated. The extent to which the current findings generalize to other samples of women remains a question for future study.

In conclusion, further research is needed to elucidate the psychodynamic relationship between childhood abuse and bodily self-harm in adulthood. For example, if childhood abuse leads to dehumanization of the body, then clinicians may need to explore ways to assess and treat the dysfunctional relationship between body self and psychological self (i.e., develop psychological efforts around neutralizing negative body image and uniting body and psychological self). It appears likely that strengthening the relationship between body self and psychological self in survivors of particular forms of childhood abuse would diminish the probability of an individual destructively acting out against body self.

REFERENCES

- Barsky, A. J., Wool, C., Barnett, M. C., & Cleary, P. D. (1994). Histories of childhood trauma in adult hypochondriacal patients. *American Journal of Psychiatry*, *151*, 397-401.
- Briere, J. (1988). The long-term clinical correlates of childhood sexual victimization. *Annals of the New York Academy of Sciences*, *528*, 327-334.
- Briere, J., & Zaidi, L. Y. (1989). Sexual abuse histories and sequelae in female psychiatric emergency room patients. *American Journal of Psychiatry*, *146*, 1602-1606.
- Brown, A., & Finkelhor, D. (1986). Impact of child sexual abuse: A review of the research. *Psychological Bulletin*, *99*, 66-77.
- Brown, G. R., & Anderson, B. (1991). Psychiatric morbidity in adult inpatients with childhood histories of sexual and physical abuse. *American Journal of Psychiatry*, *148*, 55-61.
- Bryer, J. B., Nelson, B. A., Miller, M. B., & Krol, P. A. (1989). Childhood sexual and physical abuse as factors in adult psychiatric illness. *American Journal of Psychiatry*, *144*, 1426-1430.
- Darche, M. A. (1990). Psychological factors differentiating self-mutilating and non-self-mutilating adolescent inpatient females. *The Psychiatric Hospital*, *21*, 31-35.
- Dembo, R., Williams, L., La Voie, L., Berry, E., Getreu, A., Wish, E. D., Schmeidler, M., & Washburn, M. (1989). Physical abuse, sexual victimization, and illicit drug use: Replication of a structural analysis among a new sample of high-risk youths. *Violence & Victims*, *4*, 121-138.
- Gould, D. A., Stevens, N. G., Ward, N. G., Carlin, A. S., Sowell, H. E., & Gustafson, B. (1994). Self-reported childhood abuse in an adult population in a primary care setting. *Archives of Family Medicine*, *3*, 252-256.
- Hart, L. E., Mader, L., & Griffith, K. (1989). Effects of sexual and physical abuse: A comparison of adolescent inpatients. *Child Psychiatry and Human Development*, *20*, 49-57.
- Hart, S. N., & Brassard, M. R. (1987). A major threat to children's mental health: Psychological maltreatment. *American Psychologist*, *42*, 160-165.
- Herman, J. L., Perry, J. C., & van der Kolk, B. A. (1989). Childhood trauma in borderline personality disorder. *American Journal of Psychiatry*, *146*, 490-495.

- Kaufman, J. (1991). Depressive disorders in maltreated children. *Journal of the American Academy of Child and Adolescent Psychiatry, 30*, 257-265.
- Kinzl, J., & Biebl, W. (1992). Long-term effects of incest. *American Journal of Psychiatry, 149*, 578.
- Kiser, L. J., Heston, J., Millsap, P. A., & Pruitt, D. B. (1991). Physical and sexual abuse in childhood: Relationship with post-traumatic stress disorder. *Journal of the American Academy of Child and Adolescent Psychiatry, 30*, 776-783.
- Ludolph, P. S., Westen, D., Mislé, B., Jackson, A., Wixom, J., & Wiss, F. C. (1990). The borderline diagnosis in adolescents: Symptoms and developmental history. *American Journal of Psychiatry, 147*, 470-476.
- Malinosky-Rummell, R., & Hansen, D. J. (1993). Long-term consequences of childhood physical abuse. *Psychological Bulletin, 114*, 68-79.
- Margo, G. M., & McLees, E. M. (1991). Further evidence for the significance of a childhood abuse history in psychiatric inpatients. *Comprehensive Psychiatry, 32*, 362-366.
- Norusis, M. J. (1990). *SPSS advanced statistics user's guide*. Chicago: SPSS, Inc.
- Ogata, S. N., Silk, K. R., Goodrich, S., Lohr, N. E., Westen, D., & Hill, E. M. (1990). Childhood sexual and physical abuse in adult patients with borderline personality disorder. *American Journal of Psychiatry, 147*, 1008-1013.
- Polusny, M. A., & Follette, V. M. (1995). Long-term correlates of child sexual abuse: Theory and review of the empirical literature. *Applied & Preventive Psychology, 4*, 143-166.
- Romans, S. E., Martin, J. L., Anderson, J. C., Herbison, G. P., & Mullen, P. E. (1995). Sexual abuse in childhood and deliberate self-harm. *American Journal of Psychiatry, 152*, 1336-1342.
- Ross, R. R., & McKay, H. B. (1979). *Self-mutilation*. Lexington, MA: Lexington Books.
- Swett, C., Cohen, C., Surrey, J., Compaine, A., & Chavez, R. (1991). High rates of alcohol use and history of physical and sexual abuse among women outpatients. *American Journal of Drug and Alcohol Abuse, 17*, 49-60.
- Terr, L. C. (1991). Childhood traumas: An outline and overview. *American Journal of Psychiatry, 148*, 10-20.
- van der Kolk, B. A., Perry, C., & Herman, J. L. (1991). Childhood origins of self-destructive behavior. *American Journal of Psychiatry, 148*, 1665-1671.
- Weaver, T. L., & Clum, G. A. (1995). Psychological distress associated with interpersonal violence: A meta-analysis. *Clinical Psychology Review, 15*, 115-140.
- Welch, S. L., & Fairburn, C. G. (1994). Sexual abuse and bulimia nervosa: Three integrated case-control comparisons. *American Journal of Psychiatry, 151*, 402-407.

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