

Five Forms of Childhood Trauma: Relationships With Aggressive Behavior in Adulthood

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ABSTRACT

Objective: To examine relationships between 5 types of childhood trauma (witnessing violence, physical neglect, emotional abuse, physical abuse, and sexual abuse) and an aggression score based on 21 self-reported aggressive behaviors in adulthood.

Method: Using a cross-sectional design and a self-report survey methodology, we examined relationships between 5 types of childhood trauma and the number of aggressive behaviors engaged in during adulthood in a consecutive sample of 342 internal medicine outpatients at Sycamore Primary Care Center, Kettering, Ohio, during October 2011. The primary outcome measure was the score on the Aggressive Behavior Questionnaire.

Results: In univariate analyses, each childhood trauma variable demonstrated a statistically significant relationship with the number of aggressive behaviors endorsed ($P < .001$). In addition, there was a linear relationship between the number of different forms of childhood trauma and the number of aggressive behaviors endorsed. In multivariate analyses, only 2 childhood trauma variables remained independently predictive: witnessing violence ($P < .001$) and emotional abuse ($P < .05$).

Conclusions: There appear to be indistinct relationships between trauma in childhood and aggression/violence in adulthood. In this sample of primary care patients, witnessing violence and experiencing emotional abuse were particularly relevant variables associated with the number of aggressive behaviors in adulthood.

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Relationships between various types of childhood trauma and aggression/violence in adulthood have been previously studied, but results have been conflicting. While it is beyond the scope of this article to thoroughly review this literature, which is burdened by use of various trauma variables and numerous measures of aggression/violence as well as other variations in methodology and sampling methods, the following citations provide some sense of the controversies that permeate this literature.

Although a number of studies have reported relationships between childhood sexual abuse and various forms of violence, including partner violence,^{1,2} elevated levels of aggressive behavior,³ and violence perpetration,⁴ other studies have not.⁵ Likewise, physical abuse in childhood, including corporal punishment,⁶ has been associated with violence in adulthood, such as the perpetration of violence,⁴ partner violence,⁷ and assaultive behavior⁸; but again, there are opposing findings.^{2,9,10} As for witnessing violence, meta-analytic studies indicate associations with partner violence¹¹ as well as a slightly increased risk of externalizing behaviors,¹² yet these associations are not always present.¹³ In the case of witnessing violence in childhood and perpetrating violence in adulthood, substance abuse appears to be a significant moderating variable.¹⁴ To summarize the inconsistencies in this literature, Sternberg et al¹² underscored the methodological difficulties in terms of numerous confounds, including the age of the child at the time of trauma, type of violence, and type of outcome assessed.

In addition to the preceding inconsistencies, the majority of previous studies have either examined 1 or 2 childhood trauma variables or used a measure of childhood trauma containing multiple and diverse variables, including exposure to disasters. Likewise, the definition of aggression and violence and their assessment vary from study to study, making comparisons difficult if not impossible. In this study, we examined 5 individual types of trauma in childhood in relationship to 21 explicitly aggressive behaviors in adulthood in an effort to further clarify the murky relationship between abuse in childhood and aggression/violence in adulthood.

METHOD

Participants

Participants in this study were men and women, aged 18 years or older, who were being seen at Sycamore Primary Care Center, Kettering, Ohio, an internal medicine outpatient clinic for nonemergent medical care, during October 2011. The outpatient clinic is staffed by both faculty and residents in the Department of Internal Medicine at Kettering Medical Center and is located in a midsized Midwestern city, Miamisburg, Ohio. The majority of patients recruited for this study were seen by resident providers. The recruiter excluded individuals with compromising medical (eg, pain), intellectual (eg, mental retardation), cognitive (eg, dementia), or psychiatric symptoms (eg, psychosis) of a severity that would preclude the candidate's ability to successfully complete a survey ($n = 62$).

At the outset, 480 individuals were approached, and 369 agreed to participate, for a participation rate of 76.9%. Of these, 342 completed the relevant study measures, 232 (67.8%) females, 108 (31.6%) males, and 2 (0.6%) who did not indicate their sex. Participants ranged in age from 18 to

- Relationships between trauma in childhood and aggressive behavior in adulthood remain unclear.
- In univariate analyses, all 5 forms of childhood trauma in this study (ie, witnessing violence, physical neglect, emotional abuse, physical abuse, sexual abuse) demonstrated statistically significant relationships with the number of different aggressive behaviors reported in adulthood.
- In multivariate analyses, witnessing violence and emotional abuse remained statistically significant predictor variables.

87 years (mean = 50.01, SD = 15.50). Most participants were white (85.1%), followed by African American (9.4%); only 5.5% indicated some other ethnicity/race. With regard to educational attainment, all but 7.6% had at least graduated from high school, whereas 29.5% had earned a 4-year college degree or higher.

Procedure

During clinic hours, one of the authors (J.S.L.) positioned himself in the lobby of the internal medicine outpatient clinic, approached consecutive incoming patients, and informally assessed exclusion criteria. With potential candidates, the recruiter reviewed the focus of the project and then invited each to participate. Each participant was asked to complete a 6-page survey, which took about 10 minutes. Participants were asked to place completed surveys into sealed envelopes and then into a collection box in the lobby.

The survey consisted of 3 sections. The first section was a demographic query, in which we asked participants about their sex, age, racial/ethnic origin, and educational level.

Childhood trauma assessment. The second section of the survey explored 5 types of childhood trauma. Using an author-developed questionnaire to assess childhood trauma, we asked participants, "Prior to the age of 12, did you ever experience . . ." with yes/no response options. Individual items were (1) the witnessing of violence (ie, "the first-hand observation of violence that did not directly involve you"), (2) physical neglect (ie, "not having your basic life needs met"), (3) emotional abuse (ie, "verbal and nonverbal behaviors by another individual that were purposefully intended to hurt and control you, not kid or tease you"), (4) physical abuse (ie, "any physical insult against you that would be considered 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'"), and (5) sexual abuse (ie, "any sexual activity against your will"). We elected this succinct assessment because of our previous experience with this measure (ie, this brief query accommodates the demands of a busy medical clinic).

Aggressive behavior assessment. The third section of the survey contained a 21-item author-developed questionnaire,

Table 1. Scores on the Aggressive Behavior Questionnaire as a Function of Different Forms of Childhood Abuse Indicated

Form of Childhood Abuse	No		Yes		F ^a	P <
	Mean	(SD)	Mean	(SD)		
Witnessing violence	1.68	(2.27)	3.75	(3.58)	42.24	.001
Physical neglect	2.24	(2.85)	4.39	(3.66)	22.53	.001
Emotional abuse	1.65	(2.27)	3.70	(3.54)	42.14	.001
Physical abuse	2.00	(2.68)	4.23	(3.53)	37.97	.001
Sexual abuse	2.28	(2.77)	3.56	(3.81)	10.69	.001

^aDegrees of freedom = 1,340 for *F* tests associated with the 1-way analyses of variance performed.

the Aggressive Behavior Questionnaire (ABQ), inquiring about a history of 21 externalized aggressive behaviors (ABQ; see Appendix 1). Prior to the list of 21 behaviors, the following stem was provided: "As an adult (ages 18 and older), have you ever. . ." Individual items included, "intentionally broken things when angry," "hit your partner when angry," "hit a child out of anger, not because of discipline," and "caused and gotten into a bar fight." Response options were *yes* and *no*, and the total number of affirmative responses was summed as a general measure of the range of different forms of aggressive behavior in which the respondent had engaged. The ABQ summed score was the primary outcome measure of this study.

This project was reviewed and exempted by the institutional review boards of both Kettering Medical Center, where the study took place, and the Wright State University School of Medicine. Completion of the survey was assumed to function as implied consent, which was explicitly clarified on the cover page of the booklet.

RESULTS

Of the 342 respondents, 146 (42.7%) indicated having witnessed violence during childhood, 51 (14.9%) indicated having experienced physical neglect, 152 (44.4%) indicated having experienced emotional abuse, 87 (25.4%) indicated having experienced physical abuse, and 57 (16.7%) indicated having experienced sexual abuse. Only 129 (37.7%) of the respondents denied having experienced any forms of childhood trauma. Scores on the ABQ ranged from 0 to 17 (mean = 2.56, SD = 3.07), with 112 (32.7%) respondents denying all listed forms of aggressive behavior.

To examine how ABQ scores were related to endorsement of each form of childhood trauma, we conducted a series of 1-way analyses of variance (ANOVAs), the results of which are presented in Table 1. Respondents who indicated having experienced each form of childhood trauma had statistically significantly greater scores on the ABQ compared to their peers who denied having experienced that particular form of childhood trauma. Next, we examined how ABQ scores related to the total number of different forms of childhood trauma endorsed. Overall, scores on the ABQ correlated positively with the total number of different forms of childhood trauma indicated ($r = 0.40$, $P < .001$). To illustrate this relationship in a different way, scores on the ABQ are

Table 2. Scores on the Aggressive Behavior Questionnaire (ABQ) as a Function of the Total Number of Different Forms of Childhood Abuse Indicated

Forms of Childhood Abuse, No.	n	Mean ABQ Score ^a	(SD)
0	129	1.35*	(2.09)
1	78	2.13*,†	(2.40)
2	42	3.31†,‡	(3.58)
3	38	3.76†,‡	(3.08)
4	38	4.53‡	(3.49)
5	17	4.88‡	(4.85)

^aPairs of mean ABQ scores not sharing the same symbol differ significantly ($P < .05$) based on Bonferroni post hoc tests.

presented as a function of the total number of different forms of childhood trauma in Table 2. Means with different letter superscripts differ significantly ($P < .05$) from each other in post hoc tests performed in conjunction with a 1-way ANOVA.

Because there is likely to be some degree of overlap among different forms of childhood trauma, as well as potential sex differences, each of the 5 forms of childhood trauma, along with sex, were entered simultaneously into a regression analysis to predict scores on the ABQ. As expected, the overall equation was statistically significant: $R = 0.42$, $F_{6,333} = 11.72$, $P < .001$. Importantly, only 2 of the variables were independently predictive of ABQ scores after controlling for the effects of the remaining predictor variables: witnessing violence ($\beta = 0.19$, $t = 3.30$, $P < .001$) and emotional abuse ($\beta = 0.15$, $t = 2.32$, $P < .05$). Sex ($\beta = 0.09$, $t = 1.64$, $P < .11$), physical neglect ($\beta = 0.09$, $t = 1.55$, $P < .13$), physical abuse ($\beta = 0.09$, $t = 1.35$, $P < .18$), and sexual abuse ($\beta = 0.05$, $t = 0.80$, $P < .45$) were not statistically significantly related to scores on the ABQ.

DISCUSSION

In univariate analyses, each of the 5 childhood trauma variables in this study demonstrated statistically significant relationships with the number of different aggressive behaviors indicated in the ABQ. Similarly, there was a linear relationship between the number of different forms of childhood trauma indicated and scores on the ABQ. However, the results of multivariate analyses indicated that only 2 childhood trauma variables remained statistically significant after controlling for the others: witnessing violence and emotional abuse.

The relationships between childhood trauma and aggressive behavior in adulthood are partially explained by the observation that traumatic stressors during early development may contribute to an impaired capacity for self-regulation in later life.^{15,16} This impaired capacity would explain the diffuse associations between childhood trauma and the number of reported aggressive behaviors in adulthood. However, our finding that specific forms of trauma (ie, witnessing violence, emotional abuse) are associated with aggression scores is unexplained.

In comparing our findings with previous studies, both childhood sexual and physical abuse have demonstrated varying relationships with aggression. Physical neglect and

aggression/violence have been rarely studied—therefore, our findings do not conflict with previous data. Witnessing violence in childhood has also historically demonstrated mixed relationships with aggression/violence in adulthood. Like physical neglect, relationships between emotional abuse in childhood and aggression/violence in adulthood have also been infrequently studied. In contrast to most prior studies, which have examined community samples, referred samples, and/or substance-abusing samples, the current sample was unique in being a primary care sample. Perhaps the relatively distinct nature of this sample explains the findings in this study.

This study has a number of potential limitations. First, all data were self-reported in nature and subject to the vicissitudes of recollection, repression, suppression, misinterpretation, and denial (particularly the childhood-abuse variables). Second, we do not have any adjunctive data on the number of times or specific age period during which the trauma occurred. However, given the size of this sample, such information would have resulted in multiple study cells that would likely have been too small to effectively analyze for comparison. Third, the definitions of childhood trauma in this study are somewhat imprecise. For example, some authorities would consider teasing to be an emotionally abusive behavior. Fourth, the ABQ is not a validated measure of aggression. Fifth, the participants in this sample were recruited from a resident-provider clinic and a significant proportion is indigent. Therefore, we advise caution in generalizing findings to other types of patient samples.

Despite these potential limitations, the sample in this study is distinctive in terms of the existing literature: the sample was consecutive, we explored 5 notable types of childhood trauma, and the assessment of aggressive behaviors was fairly explicit and defined for participants. Findings indicate relationships between childhood trauma and violence/aggression in adulthood, particularly with regard to witnessing violence and emotional abuse. Only further studies will continue to tease out this complex relationship and the potential factors that moderate it.

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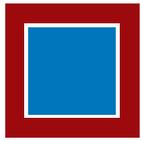
Supplementary material: See Appendix 1 on accompanying pages.

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Appendix 1 follows this article.



THE PRIMARY CARE COMPANION FOR CNS DISORDERS

Supplementary Material

Article Title: Five Forms of Childhood Trauma: Relationships With Aggressive Behavior in Adulthood

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List of Supplementary Material for the article

1. [Appendix](#) Aggressive Behavior Questionnaire

Disclaimer

This Supplementary Material has been provided by the author(s) as an enhancement to the published article. It has been approved by peer review; however, it has undergone neither editing nor formatting by in-house editorial staff. The material is presented in the manner supplied by the author.

Appendix 1. *Aggressive Behavior Questionnaire*

As an adult (ages 18 and older), have you ever:

- | Yes | No | |
|-----|-----|---|
| ___ | ___ | 1. Punched a wall when angry? |
| ___ | ___ | 2. Intentionally broken things when angry? |
| ___ | ___ | 3. Hit your partner when angry? |
| ___ | ___ | 4. Hit a child out of anger, not because of discipline? |
| ___ | ___ | 5. Caused and gotten into a bar fight? |
| ___ | ___ | 6. Gotten into fist fights (not in a bar)? |
| ___ | ___ | 7. Mistreated an animal when angry? |
| ___ | ___ | 8. Killed an animal when angry? |
| ___ | ___ | 9. Been charged with assault (not necessarily convicted of it)? |
| ___ | ___ | 10. Damaged anyone else's car on purpose? |
| ___ | ___ | 11. Damaged the property of others to "get back" at them? |
| ___ | ___ | 12. Stolen from anyone because of anger, not need? |
| ___ | ___ | 13. Defaced public property (e.g., walls, buildings, parks)? |
| ___ | ___ | 14. Intentionally ran anyone off the road? |
| ___ | ___ | 15. Beat up anyone such that they required medical attention? |
| ___ | ___ | 16. Pushed or shoved a partner when angry? |
| ___ | ___ | 17. Caused anyone to have an "accident"? |
| ___ | ___ | 18. Bullied a partner into sex? |
| ___ | ___ | 19. Spit at or on anyone? |
| ___ | ___ | 20. Bitten anyone? |
| ___ | ___ | 21. Threatened anyone with a weapon? |

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