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Childhood maltreatment and adult personality disorder symptoms: Influence of maltreatment type

Audrey R. Tyrka^{a,b,*}, Margaret C. Wyche^a, Megan M. Kelly^c, Lawrence H. Price^{a,b}, and Linda L Carpenter^{a,b}

^aMood Disorders Research Program and Laboratory for Clinical Neuroscience, Butler Hospital, Providence, RI, USA

^bDepartment of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University, Providence, RI, USA

^cNational Center for PTSD, VA Boston Healthcare System, Boston, MA, USA

Abstract

The present study examines the effects of different types of childhood maltreatment on personality disorder symptoms in a sample of adults with no Axis I psychopathology. Participants reporting a history of moderate to severe maltreatment on the Childhood Trauma Questionnaire ($n=70$) were grouped by type of abuse and compared to a non-abused group ($n=35$) with regard to the number of personality disorder symptoms endorsed. Physical/sexual abuse and emotional abuse/neglect each were associated with elevated symptoms of all three personality disorder clusters. Elevated symptoms of several specific personality disorders were also seen, including paranoid, borderline, avoidant, dependent, obsessive-compulsive, and depressive personality disorder. There were no significant differences between the maltreatment groups. These findings indicate that emotional abuse/neglect and physical/sexual abuse are risk factors for a broad array of personality outcomes in a non-clinical sample.

Keywords

Neglect; Physical abuse; Sexual abuse; Emotional abuse; CTQ

1. Introduction

Childhood abuse and neglect have been strongly implicated as risk factors in the development of personality disorders. Patients with personality disorders report increased rates of childhood maltreatment across a range of abuse types, such as emotional abuse, physical abuse, and neglect (Bierer et al., 2003; Battle et al., 2004). Importantly, this broad effect of various types of abuse is not confined to clinical populations; it has also been shown in community studies of sub-clinical personality disorder symptomatology (Johnson et al., 1999; Gibb et al., 2001; Johnson et al., 2006; Grover et al., 2007). This suggests a wide spectrum of personality outcomes in the wake of maltreatment.

Corresponding author. Butler Hospital, 345 Blackstone Blvd, Providence, RI 02906. Tel.: 401-455-6520; fax: 401-455-6534. E-mail address: E-mail: Audrey_Tyrka@brown.edu (A. Tyrka).

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Some investigations have found specific links between a particular type of maltreatment and individual personality disorders; however, the types of abuse and personality pathology identified have not been consistent among these investigations (Johnson et al., 1999; Gibb et al., 2001). Sexual and physical abuse may be considered to be more severe or pathogenic than emotional or verbal abuse, and several studies have focused specifically on individuals with a history of sexual abuse and/or physical abuse (Briere and Elliott, 2003). However, this approach may not be fully informative because individual forms of maltreatment frequently co-occur and the effects of multiple types of maltreatment may be additive or synergistic (Dube et al., 2001; Edwards et al., 2003; Teicher et al., 2006). Moreover, in a large community study of young adults, Teicher and colleagues (2006) found that participants who reported only verbal abuse and/or witnessing domestic violence had increases in symptoms of depression and dissociation that were comparable to, or greater than, those who reported other forms of abuse.

Few investigations have examined the relative effects of childhood emotional abuse (e.g., repeatedly being put down, name calling, etc) compared with physical or sexual abuse on personality pathology, and the results of these studies have been inconsistent. Moreover, with the exception of the investigation by Gibb and colleagues (2001), existing studies have not controlled for Axis I diagnoses, despite evidence that reports of Axis II symptomatology are highly influenced by a number of Axis I disorders, including major depression (Stuart et al., 1992; Peselow et al., 1994; Black and Sheline, 1997; Kool et al., 2003; Case et al., 2007), panic disorder (Hofmann et al., 1998), and eating disorders (Ames-Frankel et al., 1992).

Our group recently documented elevated rates of personality disorder symptoms in a group of individuals ($n=28$) who reported one or more forms of maltreatment on the Childhood Trauma Questionnaire (CTQ; Bernstein et al., 1998) but no current Axis I psychopathology compared to those who did not report maltreatment ($n=32$) (Grover et al., 2007). Due to the small sample size in that study, however, we were not able to investigate potential differences between types of childhood maltreatment. The present study extends this work in an expanded sample of adults with no current Axis I disorder in order to allow a comparative examination of different forms of childhood maltreatment. We hypothesized that both emotional maltreatment and physical/sexual abuse would be associated with a broad range of personality disorder symptoms.

2. Methods

2.1. Participants

Participants were 105 adults drawn from a study of the relationship between stressful life experiences and risk for psychopathology. The participants were recruited by flyers in the community and Internet advertising for healthy individuals with stressful childhoods, and were enrolled following a telephone screen to establish eligibility. Participants were included in the present sample if they did not have a current major Axis I psychiatric disorder as assessed by the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I, (First et al., 2002), were not taking psychotropic medications, and if they met criteria for absence or presence of childhood abuse on the CTQ as defined below. There were 68 females and 37 males between the ages of 18-64 ($M_{age}=32.6$ years; $SD_{age}=12.1$ years). Most of the participants were white ($n=86$); a few were black ($n=6$), Hispanic ($n=3$), Asian ($n=4$), and Native American ($n=1$). Two participants declined to report a race and three described themselves as "other." Most of the participants had attended college ($n=92$), including several who had completed a professional degree ($n=14$) as well as those who were college graduates ($n=41$) and those who had partially completed college ($n=37$). An additional ten participants had completed high school but had not attended college, one completed technical school, and two attended but did not graduate from high school. The mean occupational score for the sample on a Hollingshead occupational scale corresponded to a clerical/sales position ($M=5.04$; $SD=2.99$). Participants

were paid for their participation. This study was approved by the Institutional Review Board of Butler Hospital. All participants gave voluntary, written informed consent.

2.2. Measures

Structured Clinical Interview for DSM-IV Axis I and II Disorders (SCID-I and -II) (First et al., 1997; First et al., 2002)—Interviews were performed by research psychiatrists, psychologists or highly trained research staff under supervision.

Childhood Trauma Questionnaire (CTQ) (Bernstein and Fink, 1998)—The 28-item version of the CTQ was used (Bernstein and Fink, 1998). This is a retrospective measure of child abuse and neglect that has demonstrated high internal consistency and good test-retest reliability (Bernstein and Fink, 1998). Items inquire about childhood sexual, physical, and emotional abuse, as well as emotional and physical neglect. Responses on a 5-point Likert scale range from “Never True” to “Very Often True,” and cut-points for maltreatment on each scale have been specified (Bernstein and Fink, 1998). Seventy participants were considered to have maltreatment because they reported having a moderate to severe level of one or more of the 5 categories of maltreatment. These participants were divided into two groups: an Emotional Abuse/Neglect group ($n=32$) contained participants who endorsed one or more of the following: emotional abuse ($n=22$), emotional neglect ($n=22$), or physical neglect ($n=14$), but not sexual or physical abuse, and a Physical/Sexual abuse group ($n=38$), which included participants who endorsed physical abuse ($n=12$), sexual abuse ($n=21$), or both ($n=5$). Twenty-four of the 38 participants in this group also reported some form of neglect or emotional abuse. A control group of participants who reported no history of any form of abuse or neglect was matched to the maltreatment groups on age and to the Emotional Abuse/Neglect group with respect to gender (No Abuse group, $n=35$).

2.3. Statistical analysis

Individual items on the SCID-II were summed to form continuous outcome variables for each personality disorder (paranoid, schizoid, schizotypal, antisocial, borderline, histrionic, narcissistic, avoidant, dependent, obsessive-compulsive, depressive, and passive-aggressive), each personality disorder cluster (A, B, and C), and a total symptom score. These scales were used in conducting all subsequent statistical analyses involving personality symptoms. As these personality symptom scales were positively skewed, nonparametric analyses were performed. Group differences with respect to categorical variables were tested with chi square, and for quantitative variables group differences were tested using Kruskal-Wallis tests with post hoc Mann-Whitney U tests.

Initial analyses were aimed at determining whether the abuse groups were comparable with respect to age and gender. Because a gender difference was detected for the physical/sexual abuse group with more women than men reporting abuse of that type, we then sought to determine whether gender was predictive of any of the personality symptom scales using nonparametric correlations. Women reported more symptoms of borderline personality disorder than men. In order to ensure that any relationship between abuse group and borderline symptoms was not due to the gender difference, further analysis of the borderline personality disorder symptom scale was performed for women separately ($n=68$) in addition to the entire group of subjects. Group differences with respect to the Hollingshead occupational scale (Hollingshead, unpublished work; Cirino et al., 2002) and a history of Axis I diagnosis were also examined. The main hypotheses were tested by comparing the groups with respect to the three personality disorder cluster symptom scales. For significant clusters, post hoc analyses were conducted using the symptom scales for the individual personality disorders within each cluster. This two-step process reduced the likelihood of finding a statistical difference by chance due to conducting multiple comparisons. In addition to tests of the personality clusters,

tests of group differences were conducted for the research categories of depressive personality and passive-aggressive personality, as well as the total personality symptom scale. All tests were two-tailed with alpha set to 0.05.

3. Results

There were more women than men in the Physical/Sexual abuse group (34 vs. 4; $\chi^2 = 23.68$, $df=1$, $P<0.001$), and women reported more symptoms of borderline personality disorder than men (Mann-Whitney U test, $df=105$, $P=0.007$). There were no other sex differences or any differences in age or educational attainment between the groups. There was a significant group difference with respect to occupational status (Kruskal-Wallis test $\chi^2 = 6.32$, $df=2$, $P=0.042$). The emotional Abuse/Neglect group on average had lower occupational scores than the No Abuse group (Mann-Whitney U test, $df=66$, $P=0.017$), but this was not true of participants in the Physical/Sexual Abuse group.

Fifty-one of the 105 participants had a past diagnosis of one or more Axis I psychiatric disorders (major depressive disorder, $n=28$; depression not otherwise specified, $n=5$; bipolar disorder not otherwise specified, $n=1$; alcohol dependence or abuse, $n=13$; drug dependence or abuse, $n=8$; post-traumatic stress disorder, $n=7$; other anxiety disorder, $n=16$). An examination of maltreatment groups compared to the controls revealed that significantly more participants in the maltreatment groups than in the No Abuse group met criteria for any *past* Axis I diagnosis (41/70 vs. 10/35, $\chi^2 = 8.41$, $df=1$, $P=0.004$). Twenty-two participants overall reported having been treated for a psychiatric condition with psychotropic medications, 58 reported a history of psychotherapy, and six were hospitalized for a psychiatric illness. More of the subjects in the maltreatment groups reported a history of treatment with medication or psychotherapy for a psychiatric condition in the past (45/70 vs. 13/35, $\chi^2 = 6.92$, $df=1$, $P=0.012$). Twelve participants met the full criteria for a current personality disorder (borderline, $n=1$; narcissistic, $n=1$; obsessive-compulsive, $n=5$; depressive, $n=1$; personality disorder not otherwise specified, $n=4$). The maltreatment groups did not differ from the No Abuse group with respect to the number with a current personality disorder.

The Kruskal-Wallis tests with post hoc Mann-Whitney U tests used to test for group differences in personality symptoms revealed significant group effects for symptoms of Cluster A ($\chi^2 = 11.48$, $df=2$, $P=0.003$), Cluster B ($\chi^2 = 7.19$, $df=2$, $P=0.027$), and Cluster C ($\chi^2 = 15.80$, $df=2$, $P<0.001$). Figures 1-3 show the frequency of symptoms according to group for these clusters. Post hoc tests revealed that the No Abuse group differed from both the Emotional Abuse/Neglect group (Mann-Whitney U tests, $df=67$, $P=0.007$, $P=0.029$, $P=0.004$ for Clusters A, B, and C, respectively) and the Physical/Sexual Abuse (Mann-Whitney U tests, $df=73$, $P=0.001$, $P=0.011$, $P<0.001$ for Clusters A, B, and C, respectively), but the two maltreatment groups did not differ from each other for each of the clusters.

With regard to specific personality disorder categories within each cluster, there were significant group effects for symptoms of the following disorders: paranoid ($\chi^2 = 9.29$, $df=2$, $P=0.01$), borderline (for both the analysis of all participants, $\chi^2 = 10.91$, $df=2$, $P=0.004$, and the analysis of females only, $\chi^2 = 6.22$, $df=2$, $P=0.045$), avoidant ($\chi^2 = 9.37$, $df=2$, $P=0.009$), dependent ($\chi^2 = 6.64$, $df=2$, $P=0.036$), and obsessive-compulsive ($\chi^2 = 11.25$, $df=2$, $P=0.004$). For additional personality symptomatology, there were significant group differences for depressive ($\chi^2 = 9.85$, $df=2$, $P=0.007$) and the total personality symptom score ($\chi^2 = 21.65$, $df=2$, $P<0.001$) but there was no group difference on symptoms of passive-aggressive personality disorder. Post hoc tests revealed that the Emotional Abuse/Neglect and Physical/Sexual Abuse groups each differed from the control group on symptoms of all of the above disorders (Mann-Whitney U tests, $P<0.05$) except avoidant and dependent personality disorder, for which the post hoc tests were not significant. The Physical/Sexual Abuse and Emotional Abuse/Neglect

groups were not significantly different from each other for any personality disorder or the total score.

4. Discussion

Findings of this study support the hypothesis that various forms of childhood maltreatment are broadly associated with sub-clinical levels of symptoms of adult personality disorders. We did not find evidence to support the notion that physical and sexual abuse are more likely to be related to personality pathology than emotional maltreatment. A large body of previous research demonstrates that the psychosocial sequelae of childhood sexual abuse are highly variable (Finkelhor et al., 1990), and that additional family environment risk and protective factors play a role in subsequent adjustment (Finkelhor et al., 1990; Rind et al., 1998). The lack of a differential effect of type of abuse in the present study is especially interesting in light of the fact that most of our participants who reported physical or sexual abuse also had one or more forms of emotional abuse or neglect (24 of 38 participants, 63%), so they may have experienced a greater overall frequency or severity of maltreatment than those in the Emotional Abuse/Neglect group. Our findings regarding emotional maltreatment are consistent with results of a recent community study of young adults on verbal abuse in relation to symptoms of depression and dissociation (Teicher et al., 2006) and complement previous work regarding the effect of childhood verbal abuse on risk for adult personality disorders (Johnson et al., 2001). Moreover, in the present study, we also found that individuals with emotional maltreatment were more likely to have occupations involving lower levels of skill or responsibility than the comparison subjects; this was not true for those who reported a history of physical/sexual abuse. Taken together, these findings highlight the potentially deleterious effects of emotional abuse and neglect on self-efficacy and psychosocial functioning.

It is important to note that these findings relate largely to sub-threshold personality symptoms experienced by a non-clinical sample of healthy adults from the community. Although a wealth of clinical literature describes the negative consequences of childhood maltreatment, studies of clinical populations do not address the milder range of symptomatology associated with childhood abuse and neglect in more resilient populations or in those who are at-risk for developing disorders. Nevertheless, our findings are in keeping with clinical studies that find that personality disorders are associated with a range of adversities in various combinations (Zanarini et al., 1997; Paris, 1998; Bierer et al., 2003; Battle et al., 2004).

It is also possible that the abuse experienced by subjects in this non-clinical sample was less severe or prolonged than that found in clinical populations. The present sample was limited with respect to the number of participants with sexual abuse and with physical abuse, and particularly men with such a history. As a result, we did not examine physical abuse and sexual abuse individually. Though there is evidence that effects of physical abuse and sexual abuse are similar in some respects, sexual abuse may be a better predictor of symptoms of post-traumatic stress and other psychological sequelae of traumatic events (Briere and Elliott, 2003). It is possible that a larger study would yield significant differences in the personality sequelae of these types of maltreatment. A further limitation is that, other than our determination of type of maltreatment reported, we did not account for variability in severity or chronicity of such experiences. The generalizability of our findings is also limited by our method of recruitment, which involved advertisements, and by payment of participants which may have influenced the demographic characteristics of our sample. Finally, we used a retrospective measure of childhood experiences that may be subject to recall error and other biases relevant to personality pathology or subclinical symptoms of depression or anxiety.

Individuals who reported a history of maltreatment were more likely than the control participants to experience one or more symptoms of paranoid personality, borderline

personality, and the Cluster C personality disorders. This is perhaps not surprising, as symptoms of these disorders reflect difficulties with trust, safety, stability, flexibility, self-efficacy, and affect regulation; these are qualities that tend to flourish in a safe and nurturing developmental environment. It is also possible that in some cases both the reports of maltreatment and the personality disorder symptoms arise from a sensitivity or tendency to experience negative affect in the face of relationship strain or other stressors. Genetically-determined differences in stress sensitivity and vulnerability to dimensions underlying the personality disorders may interact with the experience of stress and trauma to increase risk for personality disorders (Goodman et al., 2004). Such interactions could contribute to the large range of personality pathology and resiliency seen in individuals reporting a history of abuse. Future work that examines correlations and interactions of biological vulnerabilities with environmental experiences may allow us to elucidate unique effects of particular forms of maltreatment or specific associations with individual personality disorders.

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Figure 1.
Cluster A Personality Disorder Symptoms

Figure 2.
Cluster B Personality Disorder Symptoms

Figure 3.
Cluster C Personality Disorder Symptoms