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Research Article

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Childhood Trauma and Adult Distress Symptoms

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Abstract

Childhood trauma is highly prevalent and consist a major public health problem with severe adverse physical and mental effects later in life. The purpose of the study was to investigate the childhood trauma effects on adult psychopathology, as expressed through their distress symptoms. One thousand two hundred ninety-three (1293), healthy individuals (343 men and 894 women) were enrolled in the study. They were divided into two groups on the basis of their responses of experienced negative life events (at least one childhood traumatic event *vs.* no event) and filled out the SCL-90 questionnaire. Accidents (18%), fears (16%), loss of house and pets (15%), educational queries and doubts (13%) and parental divorce (11%), were the most frequent childhood adversities. Participants who had at least one childhood stressor differed statistically significantly in all SCL-90 subscales, when compared with their counterparts without any childhood adversity ($p<0.001$). PSDI score for the family violence group differed statistically significantly when compared with the "death" and "disease" group ($p=0.002$).This study underlines the associations of common childhood adversities, especially domestic violence, with distress symptoms in adulthood and demonstrate the importance of a deeper understanding about the unique effects of some common ELS subtypes.

Keywords

Childhood trauma; Mental health; Adulthood; Stressor

Introduction

Childhood trauma is highly prevalent and consist a major public health problem resulting in adverse effects on physical and mental health, which persist through late adulthood [1]. The term is used often alternatively to early life stress (ELS) that refers to a variety of traumatic experiences that may occur during childhood and adolescence and is a social problem that represents a substantial public health burden. Childhood trauma has strong effects on neural structure and function, rendering an individual susceptible to later cognitive deficits and psychiatric morbidity, including schizophrenia, major depression and bipolar disorder. Individuals who have experienced abuse or neglect in childhood are 1.3 to 3.1 times more likely to experience lifetime major depressive disorder or dysthymia, depending on type, severity, and frequency of the trauma [2,3].

A wide range of psychiatric disorders in adulthood can be attributed to ELS although many who had childhood trauma exposure are quite resilient. In the present study, ELS refers to forms of childhood adversities such as separation, family violence, death in the family, resulting in the physical and emotional abuse of the child. The *physical abuse of a child* is defined as the intentional use of physical force against a child and much of the physical violence against children at home is inflicted as a means of punishment. The *emotional abuse* and neglect involves isolated incidents and a pattern of failure over time on the part of a model or caregiver to provide a developmentally appropriate and supportive environment. This could in a broader sense include an absence of supporting environment due to physical loss. Indeed, some studies suggest that exposure to some other stressors during childhood, such as the death of a parent or substitute, deprivation, maternal or paternal abandonment, separation or divorce, and parental psychiatric disorders, may also be associated with psychiatric disorders in adulthood [4].

Although childhood adversities have a well-recognized impact on adulthood psychopathology in clinical populations, there is little information about adversity in wider populations. On the other hand, research so far has focused mainly on well-defined and critical stressors such as emotional abuse, sexual abuse, physical abuse, emotional neglect, physical neglect and parental psychiatric disorders. Other forms of childhood adversity such as parental loss or separation, or a wide range of early stressful life events have drawn less attention in regarding to their adulthood impact. The purpose of the present study was to investigate the childhood trauma effects on adult psychopathology, as expressed through their distress symptoms.

Methods

The total number of individuals was one thousand two hundred ninety-three (1293), healthy individuals (343 men and 894 women) that were a) either undergraduates or postgraduate students of Greek Universities or administrative employees at the above Universities, b) both public servants and/or employees in private sectors and c) relatives and friends of the above individuals. The average age of these participants was 34.61 (12.58). All subjects had at least graduated from Primary school and they had no history of mental disorders nor did they require psychiatric medication. Those 1293 individuals were divided into two groups on the basis of their responses of experienced negative life events. The first group (CT) consisted of 758 individuals (179 males and 579 females) who reported being exposed to at least one childhood traumatic event. The second group (NCT) consisted of 479 individuals (164 males and 315 females) who reported not being exposed to such experiences.

All the participants who fulfilled the study's requirements and accepted to participate in it were informed about the procedure of the study. A self-report questionnaire, asking for certain socio-demographic information (e.g. gender, age, education, etc.), was enriched with a closed question one regarding traumatic experience during childhood: a) have you ever experienced a traumatic live event as a child? -it was the answer to this question that determined the formation of the two groups in the present study and an open question one b) if the answer to the above closed question was yes, they then had to describe the event and indicate when it occurred. According to this, in this survey the authors selected some types of traumatic life

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events: domestic violence, physical and emotional abuse, separation and loss of significant others.

Next, all participants answered the SCL-90 questionnaire [5]. The SCL-90 is a 90-item self-report symptom inventory designed primarily to reflect the psychological symptom patterns of psychiatric and medical patients. It is a measure of current, point-in-time psychological symptom status, not a measure of personality. Each item of the questionnaire is rated by the patient on a five-point scale of distress from 0 (none) to 4 (extreme). The SCL-90 consists of the following nine primary symptom dimensions:

I. Somatization
II. Obsessive-compulsive
III. Interpersonal sensitivity
IV. Depression
V. Anxiety
VI. Hostility
VII. Phobic anxiety
VIII. Paranoid ideation
IX. Psychoticism

The instrument's three global indices of distress are:

I. Global Severity Index (GSI)
II. Positive Symptom Distress Index (PSDI)
III. Positive Symptom Total (PST)

Statistics

Descriptive and inferential statistics was performed with Statistical Package for Social Sciences (SPSS 22.0, IBM, Chicago, USA). Normality was checked with Shapiro–Wilk test. Students' t-test and ANOVA were used for comparisons, along with Bonferroni t-test for post-hoc analysis.Level of statistical significance was set at p=0.05.

Results

Men were 27.7% of the sample. Participants were mostly unmarried (55.0%), dwelling in urban environment (78.3%), university students or graduates (74.1%) (Table 1). Accidents (18%), fears (16%), loss of house and pets (15%), educational queries and doubts (13%) and parental divorce (11%), were the most frequent childhood adversities reported by the participants (Graph 1).Of note, 462 out of the 1237 participants eagerly defined the stressor and these participants were included in the above calculations. Participants who had at least one childhood stressor showed higher scores than the general population the in all SCL-90, while they differed statistically significantly in all SCL-90 subscales, when compared with their counterparts without any childhood adversity. All differences were significant at p<0.001 level (Table 2).

Regarding visits to Psychologist/Psychiatrist, no statistical difference observed, although those who had a traumatic experience had more visits (17.3% *vs.* 15.1%, p=0.330. As for chronic disease, childhood trauma was associated with increased frequency of chronic diseases (11.4% *vs.* 8.8%), although difference didn't reach statistical significance (p=0.131) (data not shown). ANOVA with post-hoc analysis showed that differences emerged in the case of PDSI index. PSDI score for the family violence group differed statistically significantly when compared with the "death" and "disease" group (mean value 2.06 ± 0.61 *vs.* 1.65 ± 0.46, p=0.01and 1.57 ± 0.3, p=0.002, respectively (Table 3 and Graph 2).

Discussion

The findings of the present study add more evidence that childhood trauma account for distress and personality disorders in adulthood. A series of life stressors causing physical and emotional abuse or neglect were associated with a wide range of distress symptoms in adulthood in the present study. Although SCL-90 scores were considerably burdened, they didn't reach patients' level, a fact probably accounting for the finding that no difference was observed in chronic diseases and psychologist's visits and supporting older evidence that many who had childhood trauma exposure are quite resilient [6].

Substantial evidence has documented that adverse childhood experiences exert deleterious effects on mental health and patients generally report more adverse events than healthy subjects. It is thought that the subtypes of early life stress such as emotional and physical neglect and sexual, emotional, and physical abuse have associations with several psychiatric disorders. Among them, strong associations are observed in the domains of Borderline Personality Disorder and Mood Disorders. Childhood trauma has been associated with negative consequences in both early life and adulthood, including alterations in brain structure and function [7], variation in personality traits [8], increased risk for depression and anxiety [9], and an earlier age of onset of alcohol use and abuse [10]. Mood disorders, borderline personality disorders and schizophrenia have been related to childhood trauma, although precise neurological and psychological mechanisms are yet to be explored. In clinical practice, these entities are manifested as anxiety, depression, aggression and other distress symptoms, all covered by SCL-90 dimensions. Irrespective of diagnosis, emotional maltreatment was substantial in all patients. Emotional maltreatment might be the underlying

Table 1: Demographic characteristics of the sample.

Variables (N=1237)	Count	%
Gender		
Man	343	27.7
Woman	894	72.3
Family status		
Unmarried	680	55.0
Married	483	39.0
Divorced	55	4.4
Widowed	18	1.6
Dwelling		
Village	268	21.7
Town	549	44.4
City	420	33.9
Children		
Yes	469	37.9
No	768	62.1
Educational level		
Primary education	35	2.8
Junior High School	34	2.8
High School	253	20.5
Student	542	43.9
University Graduate	264	21.4
Post Graduate	97	7.8
Thesis	12	1.0

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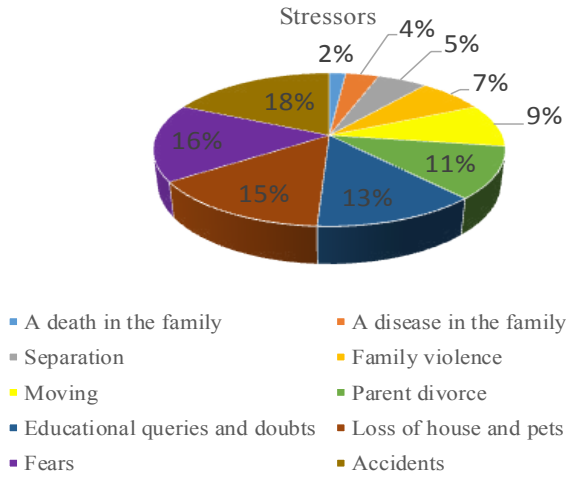


Graph 1: Childhood adversities.

Table 2: SCL-90 subscales scores depending on childhood trauma.

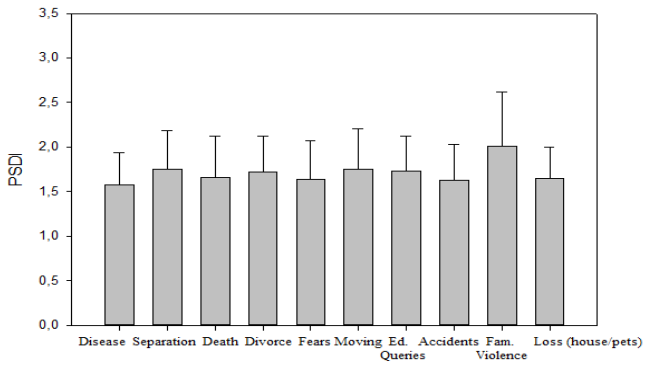
	Childhood stressor **	N	Mean (Std. Deviation)	Healthy individuals***	Patients
Somatization*	Yes	758	9.69 (7.93)	7.40 (7.06)	15.68 (10.41)
	No	479	7.69 (6.81)		
Obsessive-compulsive*	Yes	758	11.16 (6.97)	9.49 (6.50)	19.21 (9.34)
	No	479	9.20 (6.48)		
Interpersonal sensitivity*	Yes	758	8.91 (5.96)	8.36 (6.24)	14.34 (7.92)
	No	479	7.21 (5.70)		
Depression*	Yes	758	12.87 (8.94)	11.34 (8.75)	27.26 (11.50)
	No	479	10.05 (8.32)		
Anxiety*	Yes	758	7.99 (7.16)	7.32 (6.66)	19.09 (8.84)
	No	479	5.83 (6.05)		
Hostility*	Yes	758	5.35 (4.65)	5.08 (5.04)	8.46 (6.05)
	No	479	4.62 (4.41)		
Phobic anxiety*	Yes	758	2.91 (3.70)	2.51 (3.69)	8.28 (6.68)
	No	479	2.12 (3.11)		
Paranoid ideation*	Yes	758	7.14 (4.64)	6.13 (4.43)	9.05 (5.74)
	No	479	5.71 (4.29)		
Psychoticism*	Yes	758	6.42 (5.23)	6.09 (6.83)	12.59 (8.12)
	No	479	5.16 (4.76)		
Global Severity Index(GSI)*	Yes	758	0.87 (0.55)	0.74 (0.56)	1.59 (0.68)
	No	479	0.71 (0.50)		
Positive Symptom Distress Index (PSDI)	Yes	758	1.70 (0.45)	1.58 (0.53)	2.34 (0.58)
	No	479	1.59 (0.43)		
Positive Symptom Total (PST)	Yes	758	43.34 (19.46)	38.04 (20.21)	59.62 (17.71)
	No	479	36.90 (19.59)		
*p<0.001, t-test, ** At least one stressor reported, *** Donias et al. [5]					

common link in the life's stressors reported in the present study. Research support that early life stressors do have an impact on brain function causing anatomical and functional alterations accounting probably and altered reactivity to stress and maladaptation to adult life. Altered reactivity to stress, either in the direction of exaggerated reactivity or diminished reactivity, may signal a deregulation of systems intended to maintain homeostasis and a state of good health. Evidence has accumulated that diminished reactivity to psychosocial stress may signal poor health outcomes [11]. Many, if not all of these outcomes are potentially interrelated, either through direct pathways or through common underlying mechanisms. The common underlying mechanism for these outcomes is thought to be neurodevelopmental alterations that occur in response to the stress of traumatic experiences during childhood [12].

Domestic violence is well recognized as an important childhood stressor and the experience of exposure to domestic violence or abuse by caregivers has been described as risk factor for poor mental health outcomes in adolescence and adulthood [13,14]. However, studies regarding the link between domestic violence alone and distress indexes in adulthood and comparative data on the effect of

Table 3: SCL-90 subscales ANOVA depending on the type of childhood trauma.

N=462	F	p
Somatization	0.936	0.494
Obsessive-compulsive	1.048	0.400
Interpersonal sensitivity	1.682	0.091
Depression	1.344	0.212
Anxiety	1.153	0.324
Hostility	2.101	0.028
Phobic anxiety	1.834	0.060
Paranoid ideation	1.223	0.278
Psychotisism	1.476	0.154
Global Severity Idex(GSI)*	1.409	0.181
Positive Symptom Distress Index (PSDI)	2.248	0.018
Positive Symptom Total (PST)	1.125	0.343



Graph 2: PSDI differences depending on the type of childhood trauma.

domestic violence versus other childhood stressors are not available. The present study shows that the impact of domestic violence might exceed the impact of death and disease and further investigation is necessary to clarify this issue.

Limitations

It was not investigated whether the effect of adversities would be greater in a high-risk setting than in the general population and any differentiations are lost. It was not examined how much of the exposure to adversities was subjectively traumatic to the child, while there was no testing for any subtle cognitive deficits in the participants of the study. Recall deficits might also affect our results, while not all participants were willing to precisely define the stressors.

Conclusion

This study underlines the associations of common childhood adversities, especially domestic violence, with distress symptoms in adulthood and demonstrates the importance of a deeper understanding about the unique effects of some common ELS subtypes, especially for mental health professionals. Childhood trauma is both common and deleterious. As exposure to adversities in childhood and adolescence is predictive of psychiatric disorders in adulthood, understanding all kind of associations and underlying mechanisms is of crucial importance for effective and prompt interventions.

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