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The relationship between childhood traumas and aggression levels in adults

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Abstract

The effect of childhood traumas in adulthood psychopathology is considerable. There are studies indicating that there is cause and effect relation between adulthood aggression and childhood traumas. However, in Turkey, there are few studies on this subject. The results of these studies are controversial in some aspects. This research was designed to look into the relation between aggression level and childhood traumas in Turkish society. Childhood Trauma Questionnaire and Buss Perry Aggression Questionnaire were applied to 50 healthy individuals who were chosen randomly in Beylikdüzü district of İstanbul province and who did not get any neuropsychiatric diagnosis. The childhood trauma levels of the participants were detected as significantly high but their aggression levels were detected as normal. A positive meaningful correlation was detected between the Childhood Trauma Questionnaire scores and Buss-Perry Aggression Questionnaire scores. These results are supporting the idea that childhood trauma may be among the predisposing factors of adulthood aggression.

Keywords: Childhood trauma, aggression, neglect, abuse

Introduction

Childhood trauma has medical, social and legal reflections [1]. According to WHO, it is defined as "the behaviors done voluntarily or involuntarily by an adult and affect the child's health negatively in terms of physical, sexual, psychological and social aspects" [2]. All kinds of abuse towards the child, any psychological or physical bad behaviors that may harm the child's health and development and all kinds of use of the child for commercial interests are in this context [3]. It additionally involves the cases of abuse of an individual under 18 years old, the loss of caretaker, divorce, witnessing violence, migration, accident, natural disasters, harassment, rape, political pressure, torture, oppression and imprisonment [4].

Childhood traumas show negative effects on the child's biological, physical, social, emotional and psychological development and they reduce cognitive performance [5,6]. Certain skills which are obtained in childhood such as basic trust, secure attachment, emotion regulation and autonomy may be hindered by trauma and may affect the whole life [7].

Childhood traumas may directly be related to adulthood psychological problems [8]. Suicide attempts, aggression and eating disorders are the most frequent problems [9].

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Aggression is the behavior that is done voluntarily on the purpose of harming and the behavior that victim shows reaction to [10]. It has genetic, neurodevelopmental, neurobiological and psychological reasons [11]. In the development of aggression, cortisol, testosterone and thyroid hormones may have a role [12].

There are few studies carried on the relation between childhood traumas and aggression in Turkey [13-17]. These studies were carried on in the sample of several psychiatric disorders such as anti-social personality disorder, alcohol-drug dependency. There have been no such studies on which the relation between childhood trauma and aggression are investigated in normal population. This study was designed to make up for the lack of information on this field.

Material and Methods

This study was carried out between March 1, 2017 and June 30, 2017. Before the study, permissions were obtained from local ethical committee. The sample of the study was constituted by 50 adult individuals who were picked up randomly, living in Istanbul Beylikdüzü district. The criteria to involve in the study were: being between 20 and 50 years old and not having any neurologic and psychiatric diagnosis and treatment. The exclusion criteria of the study were: having neuropsychiatric disease diagnosis, having any treatment concerning these diagnosis, being younger than 20 and older than 50. Initially 74 individuals were included in the study. 18 individuals were extracted because they did not mark the tests according to instructions and 6 individuals were extracted because

they got psychiatric diagnosis. The study was completed with 50 individuals.

One interview was done for each individual who took part in the study. In this interview, sociodemographic form, Childhood Trauma Questionnaire (CTQ) and Buss Perry Aggression Questionnaire (BPAQ) were applied. This study complies with the declaration of Helsinki.

Childhood Trauma Questionnaire: It was developed in 1994 [18]. It is a self-reported questionnaire that includes Likert type answers (1: never, 5: very often). It is answered with 5 score grading system. It consists of physical abuse, sexual abuse, emotional abuse, physical neglect and emotional neglect subscales. The scores of subscales are between 5 and 25 and total score is between 25 and 125. For sexual abuse and physical abuse 6 points or more, for physical neglect and emotional abuse 13 points or more and as a total score 35 points or more are accepted as meaningful. The validity and reliability study of the Turkish of the questionnaire was carried out and Cronbach alfa reliability coefficient was found as 0.91 [19].

Buss- Perry Aggression Questionnaire: It was adopted from Buss – Durkee Hostility Inventory by Arnould H. Buss and Mark Perry in 1992. It is a Likert type questionnaire (1: extremely uncharacteristic of me, 5: extremely characteristic of me) that consists of 34 items and 5 subscales. The states defined in the items are questioning the five sub-forms of aggression (physical aggression, verbal aggression, anger, hostility and indirect aggression). Cut off score is 34 and maximum score is 170. Fifty-eight points and below show "low", between 59 and 110 points how "normal", 111 points and above show "high" levels of aggression. The validity and reliability study of the Turkish of the questionnaire was carried out and Cronbach alfa reliability coefficient was found as 0.92 [21].

Statistical analyses were performed with IBM SPSS v21.0 packaged software (IBM Corp. Released 2012. Armonk, NY, USA). The sociodemographic characteristics of the participants were displayed as frequency and percentage. CTQ and BPAQ subscales and total questionnaire scores were displayed as median, minimum, maximum, mean and standard deviation. The linear relationship between CTQ score and BPAQ score was evaluated with correlation test. For statistical significance, $p < 0.05$ was considered.

Results

The sociodemographic characteristics of the participants are presented in Table 1. 52% of the participants are female, 48% of them are male. 40% of them are single, 60% of them are married, 34% of them are 30 or below years old, 66% of them are above 30 years old. 40% of them are high school graduates, 60% of them are university graduates. 48% of them are civil servants, 26% of them are workers, and 26% of them are freelancers. 28% of them have a monthly income of below 2000 TL, 32% of them have 2000-2499 TL and 40% of them have above 2500 TL. 76% of the participants' parents are married/together, mother or father of 24% of the participants are deceased.

The aggression and childhood trauma level scores are displayed in Table 2. The total score of BPAQ was calculated as 76.7± 21.6. According to the obtained score, the aggression of the participants is at "normal" level. The total score of CTQ was calculated as 35.9±12.0. According to this result, the childhood trauma scores of the participants are significantly high. When sub-dimension scores are considered, it was detected that only physical abuse (6.1±2.9) scores were significantly high (>6).

Table 1. Sociodemographic characteristics of the subjects

Sociodemographic characteristics	Groups	n	%
Gender	Female	26	52
	Male	24	48
Marital Status	Single	20	40
	Married	30	60
Age	30 and under	17	34
	Over 30	33	66
Education	High school	20	40
	University	30	60
Job	Officer	24	48
	Worker	13	26
	Self-employment	13	26
Monthly Salary	Under 2000 TL	14	28
	2000-2499 TL	16	32
	2500 TL and over	20	40
Parent's Marital Status	Married	38	76
	Divorced or dead	12	24

TL: Turkish Lira

Table 2. Descriptive statistics of the BPAQ and CTQ scores

Scales	N	Median	Min.	Maks.	$\bar{X}$	SD
Verbal Aggression	50	12	7	21	12,9	3,5
Hostility	50	16,5	8	29	16,6	5,1
Anger	50	19	12	33	20,1	5,5
Physical Aggression	50	13	8	36	15,5	7,2
Indirect Aggression	50	10	6	22	11,5	4,0
BPAQ Total Score	**50**	**71**	**48**	**128**	**76,7**	**21,6**
Physical Neglect	50	6	5	15	7,4	2,8
Emotional Neglect	50	10	5	24	10,1	4,1
Physical Abuse	50	5	5	19	6,1	2,9
Emotional Abuse	50	6	5	23	6,8	3,4
Sexual Abuse	50	5	5	17	5,6	1,9
CTQ Total Score	**50**	**33**	**25**	**81**	**35,9**	**12,0**

BPAQ: Buss-Perry Aggression Questionnaire, CTQ: Childhood Trauma Questionnaire, SD: Standard deviation, Min: minimum, Max: Maximum.

The results of correlation between the BPAQ sub-questionnaire and total scores of the participants are displayed in Table 3, the correlation between CTQ sub-questionnaire and total scores are displayed in Table 4. Statistically significant positive correlation between BPAQ and CTQ total scores and sub-questionnaire scores was detected.

The results of the correlation between BPAQ and CTQ total and sub-questionnaire scores of the participants are displayed in Table 5. A positive and statistically significant linear relationship was detected between verbal aggression scores and emotional abuse (r=0.51; p<0.01) and sexual abuse (r=0.48; p<0.01). The verbal aggression of the individuals who suffered from emotional and sexual abuse is high.

A positive and statistically significant linear relationship was detected between hostility scores and physical abuse (r=0.33; p<0.05), emotional abuse (r=0.53; p<0.01), sexual abuse (r=0.44; p<001) and childhood trauma questionnaire total scores (r=0.38; p<0.01). The hostility scores of the individuals who suffered from emotional and sexual abuse in their childhood or who have high childhood trauma scores are also high.

A positive and statistically significant linear relationship was detected between physical aggression scores and emotional abuse (r=0.42; p<0.01) and sexual abuse (r=0.43; p<0.1) scores. The aggression scores of the individuals who suffered from emotional and sexual abuse in their childhood are also high.

A positive and statistically significant linear relationship was detected between indirect aggression scores and emotional abuse (r=0.35; p<0.05) and sexual abuse (r=0.32; p<0.01) scores. The indirect aggression of the individuals who suffered from emotional and sexual abuse in their childhood is also high.

A positive and statistically significant linear relationship was detected between BPAQ total aggression scores and emotional abuse (r=0.49; p<0.01) and sexual abuse (r=0.47; p<0.01) scores. The aggression scores of the individuals who suffered from emotional and sexual abuse in their childhood or who have high childhood trauma questionnaire scores are also generally high. The positive significant relationship between emotional abuse and sexual abuse scores of CTQ sub-questionnaires and all BPAQ sub-questionnaires scores and total scores is meaningful.

Table 4. The results of the correlation between the Buss-Perry Aggression Questionnaire and subscale scores

	Hostility	Anger	Physical Aggression	Indirect Aggression	BPAQ Total
Verbal Aggression	0,44*	0,53*	0,63*	0,53*	0,71*
Hostility		0,71*	0,62*	0,58*	0,83*
Anger			0,67*	0,69*	0,87*
Physical Aggression				0,60*	0,86*
Indirect Aggression					0,79*

* p<0,01 BPAQ: Buss-Perry Aggression Questionnaire

Table 4. The results of the correlation between the Childhood Trauma Questionnaire and subscale scores.

	Emotional Neglect	Physical Abuse	Emotional Abuse	Sexual Abuse	CTQ Total
Physical Neglect	0,63*	0,28*	0,30*	0,03	0,75*
Emotional Neglect		0,50*	0,37*	0,05	0,90*
Physical Abuse			0,38*	0,20	0,55*
Emotional Abuse				0,43*	0,61*
Sexual Abuse					0,24

* p<0,05 CTQ: Childhood Trauma Questionnaire

Table 5. The results of the correlation between the childhood trauma and aggression scores

Scales	CTQ Physical Neglect	CTQ Emotional Neglect	CTQ Physical Abuse	CTQ Emotional Abuse	CTQ Sexual Abuse	CTQ Total Score
BPAS Verbal Aggression	0,02	0,06	0,23	0,51**	0,48**	0,21
BPAS Hostility	0,14	0,25	0,33*	0,53**	0,44**	0,38**
BPAS Anger	0,06	0,18	0,21	0,41**	0,38**	0,25
BPAS Physical Aggression	-0,02	0,09	0,26	0,42**	0,43**	0,17
BPAS Indirect Aggression	0,01	-0,02	0,08	0,35*	0,32*	0,07
BPAS Total Score	0,04	0,11	0,26	0,49**	0,47**	0,24

Spearman correlation coefficient: 0-0,19= weak correlation, *0,20-0,39= mild Correlation, ** 0,40-0,69= moderate correlation.

Discussion

Our study is one of the few studies in Turkey that was conducted on the relationship between childhood traumas and adulthood aggression levels. Our research was conducted not on a specific community but on a sample that was randomly selected from the society. The BPAQ scores of the participants were on "normal" levels, while their CTQ scores were "high". A statistically significant and positive correlation was found between the BPAQ scores and CTQ scores. The results of our study were compared to those of others and discussed.

Cima et al. [22] investigated the relationship between childhood trauma and cortisol levels and aggression on the study carried on 47 prisoners and 27 healthy individual. A significant relationship was detected between childhood traumas and aggression in healthy volunteers and in the non-psychopaths in the experimental group. No such relationship was detected in psychopaths.

Sarchapione et al. [23] similarly investigated the relationship between childhood traumas and aggression on 540 male prisoners. A strong positive correlation was detected between childhood trauma questionnaire scores and aggression questionnaire scores. Allen [24] investigated the role of childhood traumas and emotion regulation and the stress coping capacity on the aggression levels of 268 university students. It was reported that childhood traumas reduced stress coping capacity and might cause aggression.

Hoeve et al. [25] detected a significant relationship between childhood trauma levels and aggression levels of 767 adolescent prisoners. Kolla et al. [26], on the study they made on 10 psychopaths and 15 non-psychopaths who were in prison due to violent behaviors, found that childhood traumas were related to aggression. In the group of psychopaths, physical abuse rate was high whereas sexual and emotional abuse rates were high in the group of non-psychopaths.

Gonzales et al. [27] investigated 2928 male individuals who were between 21 and 34 years old in terms of childhood traumas and aggression levels. In this considerably large sample, a very strong positive relationship between suffering from domestic violence and performing violent behaviors was detected and it was displayed as the mediator of post-traumatic stress disorder and psychosis. It was found that adulthood intimacy problems were related to childhood physical abuse. That state was displayed as the mediator

of anti-social personality disorder and alcoholism. It was also detected that neglect was related to violence towards strangers and that was the mediator of anti-social personality disorders. Authors reported that suffering from domestic violence in childhood is the factor that directly creates the most powerful effects for adulthood aggressive behaviors.

In a study conducted in Turkey, Evren et al. [14] investigated the relationship between anger, aggression and self-mutilative behaviors on the research that was made 200 substance users who were under inpatient treatment. It was determined that childhood trauma history could foresee self-mutilation behaviors.

In another study, 740 female and 362 male university students from 24 different cities were investigated for the purpose of studying the relationship between risky behaviors, aggression and childhood abuse. In this research which had a large sample and which gathered data from all the regions of Anatolia, impulsivity and childhood trauma levels were measured. Between these two parameters, a high level and positive relationship was detected [15].

In another study, how childhood traumas effect adulthood aggression and risk taking behaviors. In the study conducted on 477 female, 374 male, in total 851 students who were studying at Karadeniz Technical University, a positive correlation between childhood traumas and adulthood aggression and risk taking behaviors [16]. Algül et al. investigated the relationship between self-mutilative behaviors and childhood traumas within the sample of antisocial personality disorder and detected a significant relationship [17].

In all the previous studies, a significant relationship between childhood traumatic experiences and adulthood aggressive behaviors was detected. In previous studies, specific sample groups such as prisoners [22,23,25,26], adolescents [25], males [13,14,23,27], psychopaths [17,22,26], substance users [13,14] and university students [15,24] were investigated. The data gathered from these specific groups could not reflect the whole society. Whereas the sample of this study consists of not any specific sub-groups but 50 participants chosen randomly from the society. In this respect, this study has some similar characteristics to the study of Gonzalez et al. among former studies. However, the sample of that study consisted of only males. Therefore, this study is significant, as its sample was determined by choosing randomly from the society.

Conclusion

In this study, like previous studies, a significant correlation between childhood traumatic experiences and adulthood aggression behaviors was found (Table 5). The most important limitedness of this study is the smallness of the sample. Additionally psychiatric examination was not carried out on the participants and the Structured Clinical Interview for DSM-5 (SCID-5) was not applied. This is why it is not known whether the individuals in the sample had psychiatric disorders or not. In order to make further interpretations and to refer to cause and effect relationships, the data from a larger sample is required.

Competing interests
The authors declare that they have no competing interest

Financial Disclosure
The financial support for this study was provided by the investigators themselves.

Ethical approval
Before the study, permissions were obtained from local ethical committee.

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