

Childhood traumatic experiences, alexithymia, and resilience in patients with adjustment disorder

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Date submitted:

May 25, 2018

Date accepted:

Jul 19, 2018

Online publication date:

September 15, 2018

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Keywords: Adjustment disorder, alexithymia, childhood traumatic experience, resilience.

ABSTRACT

Aims: Although adjustment disorder is a common disorder and causes a loss of function, there are limited studies about it. This study aimed to determine the level of childhood traumatic experiences, alexithymia, and resilience in patients with adjustment disorder.

Methods: This was a case-control study. The study sample consisted of 110 healthy individuals (control group) and 158 patients with adjustment disorder (case group) treated in the psychiatric department of a university hospital in Turkey. The Childhood Traumatic Experience Scale (CTES), Toronto Alexithymia Scale-20 (TAS-20), and Resilience Scale for Adults (RSA) were used to collect the data for this study.

Results: In this study, the CTES and TAS-20 total mean scores of the case group were found to be higher than the control group, and the RSA total mean score of the case group was found to be lower than the control group ($p < 0.05$).

Conclusions: Consequently, the traumatic childhood experiences of the case group were excessive; their alexithymia levels were high, and their resilience levels were low. Investigating childhood traumatic experiences, alexithymia, and resilience are considered to be significant in the selection of therapy and education programs in patients with adjustment disorder.

Introduction

Adjustment disorder is a psychiatric disorder caused by multiple psychosocial stressors and characterized by symptoms like discomfort, distress, and sometimes behavioral symptoms (1). Stressors are composed of non-critical life events like communication problems that may be observed in everyday life, breakups in a relationship, job changes, and economic difficulties, rather than traumatic events like natural disasters or being assaulted (2,3). Adjustment disorder is also commonly reported in primary care settings and in inpatients with medical illness, with a prevalence ranging from 2.9% to 19.4% (4,5). Especially the prevalence of adjustment disorders in consultation-liaison psychiatry is closer to 50% (6).

In this disorder, significant deterioration is observed in the patient's social life, business life, and other functions (1,6). Some studies have observed that adjustment disorder and suicidal behavior are linked (7,8). In the etiology of adjustment disorder, various factors like childhood experiences; personality traits; familial and genetic factors; and recently experienced negative life events are considered to be responsible (9,10). Possible

negative childhood experiences causing mental traumas include accidents, natural disasters, physical abuse, emotional abuses, sexual abuse, as well as emotional and physical neglect (11,12). Repeated abuse and neglect in childhood may lead to psychiatric disorders in adulthood (13-15). Analyzing and understanding childhood traumas of individuals with adjustment disorder can guide mental health professionals about choosing the appropriate treatment and care interventions (9).

Adjustment disorders are short-term maladaptive reactions to the situation described as psychosocial stress. (2,3,9). In the literature, it is also considered one of the factors that plays a role in coping with stress are alexithymic features (16,17). Alexithymia, which is described as the difficulty recognizing and describing emotions and the difficulty distinguishing physical and emotional sensations, reduces the resistance of the individual to stress and limits the capacity of the person to adapt (17,18). Studies have reported alexithymia to be common in psychiatric disorders (19-21). Furthermore, recognizing alexithymia is important for patients to receive effective and timely treatment and care (7,20). Alexithymia appears both as a difficulty in emotional functioning and a difficulty in interpersonal relationships,

but the number of studies that have explored the prevalence of alexithymia among patients diagnosed with adjustment disorder is negligible (22).

Adjustment disorder is one of the psychiatric disorders that has the condition of stressful life events in its etiology (3). It has been reported that resilience has been determined to be very important in obtaining power in the face of subsequent events, coping with challenges, and adapting to dynamic conditions (23,24). The resilience level of the individual is also considered important for adjustment disorder related to stress or resulting from stress.

Although the prevalence of adjustment disorder is quite high and causes loss of function, studies about childhood traumas, alexithymia, and resilience levels are limited. The aim of this study was to determine the level of childhood traumatic experiences, alexithymia, and resilience in patients with adjustment disorder. The results of this study may be effective in choosing psychosocial interventions that can be used for treatment.

Methods

Participants

This case-control study, which was conducted between July to September 2015 at the psychiatric department of a university hospital in Ankara, Turkey. From the outpatient records, it has been identified that 180 patients diagnosed with adjustment disorder according to DSM-V were treated from 17 May to 17 June 2015. These patients were summoned to the clinic for an interview and were re-evaluated by two experienced psychiatrists according to DSM-V adjustment disorder diagnostic criteria. Patients with active substance usage, patients who meet the criteria for axis II personality disorder, patients with intelligence problems, illiterate patients, and patients with criminal records were excluded from the study. The case group was composed of 158 patients who agreed to participate in the study and met the research criteria. As a control group, 110 healthy individuals who were socio-demographically similar to the patient group, who live in Ankara, and who do not have history of psychiatric illness were included in the study.

Data collection tools

1. Data collection form: This form prepared by researchers for study. Specifically, this form included questions about each patient's age, education level, marital status, employment status, where they spent a large part of their life, and whether they had a history of substance abuse.

2. Childhood Traumatic Experience Scale (CTES): This scale was developed by Bernstein et al. (25) for screening of traumatic experiences before 18 years of age. The validity and reliability study of the Turkish version was performed by Aslan and Alparslan (26). It is based on a 5-point Likert scale with three sub-scales about emotional abuse and neglect, physical abuse, and sexual abuse. The point total may vary between 40 and 200. High points indicate a higher number of incidents of childhood abuse and significant violence. Aslan and Alparslan (26) determined the internal consistency coefficient of the scale as 0.96. In this study, the internal consistency coefficient of the scale was 0.79 (Cronbach's $\alpha=0.79$).

3. Toronto Alexithymia Scale-20 (TAS-20): This scale was developed by Bagby et al. (27) to assess a person's alexithymia, which is defined as the failure to recognize one's own feelings and excitement. The scale is a self-rating Likert type scale

with ratings ranging from 1 to 5 and consisting of 20 items. Items numbered 4, 5, 10, 18, and 19 are graded adversely. This scale includes three subscales, including difficulty identifying feelings, difficulty describing feelings, and externally oriented thinking. Difficulty identifying feelings is defined as difficulty identifying feelings and distinguishing the emotional arousal that accompanies bodily feelings. Difficulty describing feelings is defined as difficulty communicating feelings to others. Externally oriented thinking is defined as the presence of an extroverted cognitive structure, inward looking thinking, and weakness of imagination. High scores indicate high levels of alexithymia (27). The Turkish validity and reliability study of the TAS-20 was conducted by Güleç et al. (28) and the internal consistency coefficient of the scale has been determined as 0.96. In this study, the internal consistency coefficient of the scale was 0.82 (Cronbach's $\alpha=0.82$).

4. Resilience Scale for Adults (RSA): The scale was developed by Friborg et al. (29) focuses on protective resources in supporting psychological resilience and it especially aims to define the basic protective factors in regaining and sustaining mental health. Adaptation of the scale to Turkish population was done by Basım and Çetin (23). This 33-item scale has six subscales including self-perception, perception of future, structural style, social competence, family cohesion, and social resources. High scores indicate a high level of resilience. Basım and Çetin (23) determined the internal consistency coefficient of the scale to be 0.86. In this study, the internal consistency coefficient of the scale was 0.96 (Cronbach's $\alpha=0.96$).

Data collection tools were applied to the case and control groups by investigators with face to face interviews. It took about 20-25 minutes to fill out the forms.

Ethical Approval

Written approval was obtained from the ethical committee of the university and written permission was also obtained from the mental health and diseases service of the university. Individuals participating in the study were informed about the purpose and the subject of the study and it was explained that participation is voluntary. The participants in the study were assured that their identity would be kept confidential and informed that they could withdraw their consent at any time.

Data Analysis

Statistical analyses were completed using Statistical Package for the Social Sciences (SPSS) 21.0 (Chicago, IL, USA). When evaluating the data, to determine if it was parametric/nonparametric, analyses were performed to check whether the data was in a form that was in compliance with normal distribution and it was ascertained out that the variables were parametric. Descriptive statistics are presented as mean, standard deviation, frequency, and percentage. An independent t test was used in the comparison of the continuous variables, and a chi-square test was used in the comparison of categorical variables. In order to assess whether the difference in the scale points between case and control groups remained the same after correction has been applied to the sociodemographic variables that belong to the groups, Covariance analysis was applied. Statistical significance was set at $p<0.05$.

Results

The sociodemographic characteristics of individuals participating in the study are listed in Table 1. All of the individuals

included in the study were males. No statistically significant difference ($p < 0.05$) was observed in terms of sociodemographic characteristics except education level ($\chi^2 = 55.710$; $p = 0.001$), smoking ($\chi^2 = 21.738$; $p = 0.001$), and drug using ($\chi^2 = 37.558$; $p = 0.001$) between the patients and the healthy control group. Of the patients participating in the study, 49.3% were secondary school graduates, 60.7% are smokers, and 30.4% stated that they had used narcotic drugs at least once in their life. In the control group, 58.2% were primary school graduates, 68.2% were smokers, and 0.9% stated that they had used narcotic drugs at least once in their life (Table 1).

Table 2 shows the CTES total mean scores ($t = 10.319$; $p = 0.001$), emotional abuse and neglect ($t = 7.394$; $p = 0.001$), physical abuse ($t = 8.115$; $p = 0.001$), and sexual abuse ($t = 5.127$; $p = 0.001$) subscale mean scores of the case and the control groups and a statistically significant difference has been identified. The mean scores of the case group are higher.

A statistically significant difference was observed between the TAS-20 total mean scores ($t = 5.424$; $p = 0.001$) of the case and the control groups and the difficulty identifying feelings ($t = 13.889$; $p = 0.001$) and difficulty describing feelings ($t = 5.706$; $p = 0.001$) subscales. When the mean scores of the difficulty identifying feelings and difficulty describing feelings subscales and the TAS-20 total scores were compared to the control group, scores for the case group were higher. As shown in Table 2, no statistically significant difference was found in the externally oriented thinking ($t = 0.187$; $p = 0.852$) subscale between the groups in the study (Table 2).

A statistically significant difference was also observed be-

tween the groups in terms of RSA total mean scores ($t = -9.864$; $p = 0.001$) and self-perception ($t = -9.369$; $p = 0.001$), perception of future ($t = -7.725$; $p = 0.001$), structural style ($t = -7.352$; $p = 0.001$), social competence ($t = -7.764$; $p = 0.001$), family cohesion ($t = -8.318$; $p = 0.001$), and social resources ($t = -9.046$; $p = 0.001$) subscales, indicating that the case group has a lower mean score ($p < 0.05$), as shown in Table 2.

Table 3 shows the difference between the total scores of the CTES, TAS-20, and RSA scales of the case and control groups evaluated after a correction has been applied for the education level, smoking, and drug usage differences between the groups. The subsequent covariance analysis found that the differences between the groups continued ($p < 0.05$).

A statistically significant positive correlation existed between the case and the control group in terms of total CTES and total TAS-20 mean scores ($r = 0.395$; $p = 0.001$). Rising the CTES mean scores in the case group indicate rising the TAS-20 mean scores ($p < 0.05$). A statistically significant negative correlation has been determined between the total CTES mean scores and total RSA mean scores ($r = -0.252$; $p = 0.001$), and it indicates that with the rise of the total CTES mean score, total RSA mean scores, decreases ($p < 0.05$). A statistically significant negative correlation was found between the total TAS-20 mean scores and total RSA mean scores ($r = -0.299$; $p = 0.001$). As shown in Table 4, the RSA total mean scores of the case group decrease as the TAS-20 total mean scores increase ($p < 0.05$).

Discussion

This study found that the physical, emotional, and sexual

Table 1. Sociodemographic characteristics of the study sample (N=268)

Sociodemographic characteristics	Case Group (n=158)	Control Group (n=110)	
Age (Mean \pm SD)	23.25 \pm 4.96 years	24.41 \pm 4.72 years	t=-1.866 p=0.063
Marital status n (%)			
Married	32 (20.2%)	17 (15.5%)	$\chi^2 = 0.175$ p=0.676
Single	126 (79.8%)	83 (75.5%)	
Education level n (%)			
Elementary	29 (18.3%)	64 (58.2%)	$\chi^2 = 55.710$ p=0.001*
Secondary	78 (49.3%)	15 (13.6%)	
High school	25 (15.8%)	19 (17.3%)	
University	26 (16.4%)	12 (10.9%)	
Employment status n (%)			
Yes	59 (37.3%)	48 (43.6%)	$\chi^2 = 1.252$ p=0.263
No	99 (62.7%)	62 (56.4%)	
Life environment n (%)			
Village	39 (24.6%)	25 (22.7%)	$\chi^2 = 1.523$ p=0.677
Town	13 (8.2%)	6 (5.5%)	
City-central	94 (59.4%)	73 (66.4%)	
City-shanty	12 (7.6%)	6 (5.5%)	
Smoking n (%)			
Yes	96 (60.7%)	75 (68.2%)	$\chi^2 = 21.738$ p=0.001*
No	62 (39.2%)	35 (31.8%)	
Alcohol usage n (%)			
Yes	46 (29.1%)	86 (78.2%)	$\chi^2 = 1.789$ p=0.181
No	112 (70.9%)	24 (21.8%)	
Drug usage n (%)			
Yes	48 (30.4%)	1 (0.9%)	$\chi^2 = 37.558$ p=0.001*
No	110 (69.6%)	109 (99.1%)	

* $p < 0.05$. χ^2 : Chi-square test; t: Student t test; SD: Standart deviation

Table 2. Comparison of CTES, TAS-20, and RSA mean scores of the study sample

	Case Group (n=158)	Control Group (n=110)	t	p	95% CI		
	Mean ± SD	Mean ± SD			Lower	Upper	
CTES							
Emotional abuse and neglect	52.08±10.95	39.37±17.16	7.394	0.001*	9.32	16.09	
Physical abuse	41.34±10.77	32.60±4.02	8.115	0.001*	6.88	10.58	
Sexual abuse	7.97±4.34	5.69±2.02	5.127	0.001*	1.40	3.15	
CTES total score	101.39±18.82	77.66±18.07	10.319	0.001*	19.19	28.24	
TAS-20							
Difficulty identifying feelings	23.82±6.58	13.33±5.20	13.889	0.001*	9.00	11.97	
Difficulty describing feelings	14.26±3.51	12.04±2.49	5.706	0.001*	1.45	2.99	
Externally oriented thinking	20.97±8.02	20.76±10.42	0.187	0.852	-2.01	2.43	
TAS-20 total score	59.08±13.88	50.78±9.46	5.424	0.001*	5.28	11.30	
RSA							
Self-perception	15.16±4.78	21.40±5.73	-9.369	0.001*	-7.51	-4.97	
Perception of future	11.20±3.28	14.57±3.83	-7.725	0.001*	-4.23	-2.51	
Structural style	11.25±2.99	14.23±3.43	-7.352	0.001*	-3.75	-2.19	
Social competence	15.26±4.87	20.73±6.16	-7.764	0.001*	-6.79	-4.13	
Family cohesion	15.86±4.85	21.35±5.61	-8.318	0.001*	-6.76	-4.22	
Social resources	17.52±6.07	25.01±7.05	-9.046	0.001*	-9.07	-5.90	
RSA total score	86.25±22.04	117.29±27.40	-9.864	0.001*	-37.01	-25.08	

*p< 0.05, t: Independent Sample t test, n: Sample, SD: Standart deviation, 95% CI: 95% confidence interval, CTES: Childhood Traumatic Experience Scale, TAS-20: Toronto Alexithymia Scale, RSA: Resilience Scale for Adults

Table 3. Covariance analysis

	Case Group (n=158)	Control Group (n=110)	*
	Mean ± SD	Mean ± SD	
CTES total score	102.35±20.50	77.99±20.91	<0.001
TAS-20 total score	59.16±13.19	51.73±13.49	<0.001
RSA total score	88.19±26.71	114.39±27.98	<0.001

n: Sample, SD: Standart deviation, CTES: Childhood Traumatic Experience Scale, TAS-20: Toronto Alexithymia Scale, RSA: Resilience Scale for Adults.
*Corrected values according to education level, smoking, and drug usage.

abuse experienced by patients with adjustment disorder are more frequent than the healthy control group. In the literature, it is stated that physical, psychological and social problems may be observed as a result of traumatic experiences in childhood (11,12,14). Additionally, according to a psychoanalytic approach, traumatic childhood experiences are important in the development of adjustment disorder. Current strain evokes the abuse and frustration experienced in childhood, often leading to the development of the disorder and subsequent appearance of various emotional and behavioral symptoms (9). The results of this study seem to support this view. Our finding suggests that it may be appropriate for patients with adjustment disorder to be evaluated for childhood traumatic experiences.

This study has shown that the total TAS-20, difficulty identifying feelings, and difficulty describing feelings scores of the case group were higher than the healthy control group, suggesting that the case group has higher levels of alexithymia. Similar to our results, Chen et al. (19) stated that patients with adjustment disorder had problems with identification of emotions, which is a feature of alexithymia. The literature has shown that individuals who display alexithymic features have a hard time identifying

Table 4. Correlation

	CTES total	TAS-20 total	RSA total
CTES total		r=0.395 p=0.001*	r=-0.252 p=0.001*
TAS-20 total	r=0.395 p=0.001*		r=-0.299 p=0.001*
RSA total	r=-0.252 p=0.001*	r=-0.299 p=0.001*	

*p< 0.05; r, Correlation test; CTES, Childhood Traumatic Experience Scale; TAS-20, Toronto Alexithymia Scale; RSA, Resilience Scale for Adults.

feelings, have trouble connecting with other people, and have a limited capacity for empathy, all of which combine to give them a hard time in interpersonal relationships (22,30). Alexithymic features may play a role in the manifestation of adjustment disorder symptoms or in the severity of symptoms. Further studies are needed to investigate the role of alexithymia in the pathogenesis of adjustment disorder.

This study has shown that there is no difference between the externally oriented thinking subscale of the case and control groups in terms of alexithymic features. In the literature, it is stated that alexithymic features are not only common in psychiatric disorders, but they are also common in the healthy population (17,31). Our study findings are similar to previous findings in the literature.

In this study, compared to the healthy control group, adjustment disorder patients have lower mean scores for self-perception, perception of future, structural style, social competence, family cohesion, and social resources. This finding indicates that patients with adjustment disorder have lower levels of resilience. In their study of male patients with adjustment disorder, Na et al. (16) determined that, compared to the healthy

control group, they have fewer individual characteristics like self-acceptance, self-confidence, goal setting, empathy, helpfulness, hopefulness about the future, and social interaction, so that they are not very capable of coping with stressful situations. Lorenz et al. (32) ve Oh et al. (33) similarly reported that patients with adjustment disorder were not very successful at coping with stress.

This study showed a positive correlation between the alexithymia levels and traumas experienced in childhood. In their study of German society, Eichhorn et al. (17) determined that the more that traumatic experiences of patients increase the more their alexithymia levels increase. The findings of this study demonstrate that therapies for the treatment of traumas can be helpful.

This study found that the alexithymia mean scores and resilience mean scores of adjustment disorder patients have a negative relationship. Vanheule et al. (22) determined that patients with high level of alexithymia were cold and distant in interpersonal relationships. Sifneos (18) stated that alexithymic individuals have trouble linking their visual images, dreams, or ideas with their emotions, and trouble understanding and linking with the emotions of others. The resilience that helps individuals to cope with stressful situations is reduced by these characteristics. In this context, it is clear that providing patients with emotion identification and expression education can be helpful in increasing their resilience.

A negative correlation was observed between the traumatic childhood experiences of patients with adjustment disorder and their resilience levels. In the literature, it has been reported that family cohesion and support; the behavior of parents; and relations with individuals like friends, neighbors and non-family members are factors that improve resilience (34). In their study, Choi et al. (35) found that individuals who had been neglected or subjected to domestic violence have lower resilience, and they underlined that resilience is important for coping with stressful situations. These results suggest that therapies aimed at variables that reduce the resilience like traumatic childhood experiences or alexithymia would be beneficial.

The limitations of this study are twofold. First, the sample of this study includes only male patients, which is a limitation to generate the results to both genders. Second, self-reporting was used as a data collection tool.

Conclusion

Adjustment disorder is a common psychiatric disease that causes function loss (2). This study determined that patients with adjustment disorder reported excessive traumatic childhood experiences, demonstrated high alexithymia levels, and registered low resilience levels. Investigating traumatic childhood experiences, characteristics of alexithymia and resilience are considered to be significant in the selection of therapies. It is stated in the literature that personal (age, gender, education level, personality characteristics etc.), familial and environmental factors influence resilience (34). In addition, studies on alexithymia also associate alexithymia with older age, substance use, low education level and poor income (36,37). For this reason, further studies about patients with AD are recommended.

Acknowledgment

EÖ: determined the research topic, designed the research, conducted the research, collected and analyzed the data and

wrote the manuscript; SM: contributed to writing; CTÖ: revised the manuscript. This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Conflict of Interest

The authors declared they do not have anything to disclose regarding conflict of interest with respect to this manuscript.

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