



Childhood traumas and psychological flexibility in patients diagnosed with generalized anxiety disorder

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Abstract

Aim: We aimed to investigate the relationship between anxiety level, childhood trauma and psychological flexibility in patients with Generalized Anxiety Disorder (GAD).

Materials and Methods: This cross-sectional study was conducted with 100 outpatients diagnosed with generalized anxiety disorder between June 2022 and September 2022. Assessment tools were Childhood Trauma Questionnaire (CTQ), Psychological Flexibility Scale (PFS), Beck Anxiety Inventory (BAI).

Results: A total of 62% of the participants in this study were women. Their average age was 36.29 ± 13.21 . The regression coefficient (correlation) between CTQ and BAI is not statistically significant ($p > 0.05$). There was a negative relationship between CTQ and PFS ($r = -0.213$). It was determined that when CTQ increased by one unit, the PFS value would change by $\beta = -0.215$ units. There was a negative relationship ($r = -0.372$) between PFS and BAI. It was found that when PFS increases by one unit, the BAI value will change by $\beta = -0.240$ units.

Conclusion: Although childhood traumas are not associated with anxiety severity in GAD patients, they may have a negative impact on psychological resilience. As psychological flexibility increases, anxiety severity decreases.



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Introduction

Anxiety disorders are one of the most common mental disorders among the psychiatric disorders in DSM-5. They are categorized as; panic disorder, agoraphobia, specific phobia, social anxiety disorder, generalized anxiety disorder, separation anxiety disorder, anxiety disorder due to another health condition, substance/medication-induced anxiety disorder, other specified or unspecified anxiety disorder [1].

Negative experiences in childhood are important among the risk factors for anxiety disorders [2]. Among these, physical or sexual assault/abuse and behavioral inhibition are significant [3]. Negative childhood experiences have significant effects in many different areas throughout life. When the literature is examined, it is emphasized that negative events experienced in early childhood may make that individual more prone to psychopathologies [4,5]. Those who experienced trauma in childhood are more likely to suffer from anxiety and mood disorders. Therefore, it be-

comes more important to investigate this condition and apply treatments for anxiety disorders [6].

Psychological flexibility is the capacity to maintain awareness of the current moment in the face of unfavorable ideas, feelings, and physical sensations while making decisions about one's actions depending on the circumstances and one's own ideals. Psychological flexibility has six dimensions: acceptance, defusion, being in the moment, contextual self, values, and committed behaviors in line with values [7]. Acceptance involves actively embracing thoughts, feelings, and bodily sensation experiences as they arise, with non-judgmental awareness. Rather than trying to change thoughts' form, frequency, or situational sensitivity, defusion aims to change their undesirable functions. It refers to approaching psychological and environmental events with a non-judgmental attitude as they occur. It emphasizes defining what individuals do, think, and feel in the present moment, observing themselves while doing this defining behavior, and taking perspective on all these experiences [7]. With values, it aims to help people clarify what is important and choose the direction they want to go [8]. It has been reported that experiential acceptance processes are effective in helping patients cope with psychotic

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symptoms and stressful life events [9]. Low psychological flexibility is associated with depression and anxiety. In a meta-analysis of 63 studies, significant relationships were determined between psychological flexibility and anxiety [10]. Psychological flexibility comes to the fore with its protective and balancing effect in coping with stressors [11].

Bidirectional relationships have been demonstrated between psychological flexibility concerning childhood traumas. Richardson et al. (2019) reported that trauma was associated with higher levels of psychological flexibility [2], the experience of childhood maltreatment promotes avoidance rather than acceptance of emotional experiences [12] thus contributing to decreased psychological flexibility. In addition, it can be said that psychological flexibility, unlike personality traits, is a learned and therefore more variable ability. As a result, although the relationship between psychological flexibility and anxiety disorders is known, this study aimed to investigate the relationship between anxiety level, childhood trauma and psychological flexibility.

Materials and Methods

Procedure and participants

This research was conducted with a descriptive research model to determine the effect of childhood trauma on psychological flexibility and anxiety levels in individuals diagnosed with generalized anxiety disorder. The research was conducted with 100 outpatients diagnosed with generalized anxiety disorder who applied to Hatay Training and Research Hospital psychiatry outpatient clinic between June 2022 and September 2022.

In the calculation of the sample size, the required number of samples was determined as 53, while the minimum sample width in the G-Power program was $\alpha = 0.05$, the power of the test ($1 - \beta$) was 0.95, based on the "Psychological Flexibility Scale" [13]. The sample consists of patients who meet the inclusion criteria and agree to participate in the study.

Inclusion criteria

- Being diagnosed with generalized anxiety disorder according to DSM-5 diagnostic criteria
- Being 18 years or older
- Being literate
- Agreeing to participate in the study

Exclusion criteria

- Having a comorbid mental illness
- Presence of major physical, emotional or neurological disability

Assessment tools

Personal Information Form: Questions regarding the age, gender, educational status and diagnosis period of the individuals who agreed to participate in the study were prepared in line with the literature.

Childhood Trauma Questionnaire (CTQ): It is a self-assessment scale developed by Bernstein et al. (1994) to quantitatively retrospectively evaluate the abuse and neglect experiences that the individual was exposed to before the age of 20 [14]. The Turkish validity and reliability study of the scale was conducted by Şar, Öztürk and İkkardeş (2012) [15]. Subscales are emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect. It provides a 5-point Likert type evaluation (1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always). The total trauma score is obtained by the sum of all subscales and has values between 54-270. In our research, the Cronbach alpha coefficient for the general scale score was found to be 0.91.

Psychological Flexibility Scale (PFS): The psychological flexibility scale was developed by Francis, Dawson and Golijani-Moghaddam (2016) [16] to measure individuals' psychological flexibility levels. The scale was adapted into Turkish by Karakuş and Akbay (2020), consists of 28 items and 5 sub-dimensions. It is a 7-point Likert type scale. The sub-dimensions are "Values and behavior in line with values", "being in the moment", "acceptance", "contextual self" and "defusion" [17]. In evaluating the scale items, high scores from each subscale mean high psychological flexibility. In our research, the Cronbach Alpha internal consistency reliability coefficient of the scale was found to be .80.

Beck Anxiety Inventory (BAI): BAI is a self-rating scale used to determine the frequency of anxiety symptoms experienced by individuals. It was developed by Beck, Epstein, Brown and Steer (1988) [18]. It is a scale that examines subjective anxiety level and physical symptoms. It consists of 21 items in total. Each answer is scored between 0-3 and is a Likert type scale. Anxiety levels of the patients according to the scores obtained; 0-7 points are classified as minimal, 8-15 points as mild, 16-25 points as moderate, and 26 and above points as severe anxiety. Higher total scores from the scale indicate the severity of anxiety experienced by the individual. Validity and reliability studies of BAI for Turkey were carried out by Ulusoy, Şahin and Erkmen [19]. In our research, the Cronbach Alpha internal consistency reliability coefficient of the scale was found to be .91.

Statistical analysis

Mean and standard deviation are given for numerical variables obtained from the study, and frequency and percentage analysis are given for categorical variables. The reliability of the used scales was evaluated with Cronbach's alpha coefficient. The suitability of the total scores and sub-dimension scores obtained from the scales used to normal distribution was examined with the Shapiro Wilk test and it was determined that they fit the normal distribution ($p > 0.05$). In comparing these variables with categorical variables, independent samples t test (student t test) was used for categorical variables containing two groups, and Analysis of Variance was used for categorical variables containing three or more groups. In addition, Tukey's multiple comparison test was applied to determine the difference between groups. Additionally, Pearson correlation analysis and Path analysis were applied to determine and

Table 1. Average scores and min-max values of all scales.

Scales	Mean	Standard Deviation	Minimum	Maximum
Beck Anxiety Inventory	24.13	13.02	.00	57.00
Values and behavior in line with values	42.16	12.78	13.00	70.00
Being in the moment	29.48	6.85	15.00	44.00
Acceptance	18.30	7.11	5.00	35.00
Contextual self	9.56	4.54	3.00	21.00
Defusion	10.38	4.49	3.00	21.00
PFS	109.88	20.21	51.00	166.00
Emotional abuse	10.18	4.36	5.00	25.00
Physical abuse	7.70	4.01	5.00	25.00
Sexual abuse	6.11	2.91	5.00	21.00
Emotional neglect	15.23	4.65	5.00	25.00
Physical neglect	10.89	4.11	5.00	25.00
CTQ	63.76	20.01	31.00	143.00

Table 2. Comparison of all scales according to gender status.

Scales	Woman Mean±SD	Male Mean±SD	t	p
Beck Anxiety Inventory	27.34 ± 12.7	18.89 ± 11.92	3.302	0.001*
Values and behavior in line with values	41.44 ± 12.71	43.34 ± 12.97	-0.723	0.472
Being in the moment	28.48 ± 7.19	31.11 ± 6	-1.881	0.063
Acceptance	18.47 ± 6.72	18.03 ± 7.8	0.300	0.765
Contextual self	9.65 ± 4.59	9.42 ± 4.52	0.238	0.812
Defusion	10.39 ± 4.13	10.37 ± 5.09	0.020	0.984
PFS	108.42 ± 20.54	112.26 ± 19.71	-0.922	0.359
Emotional abuse	10.58 ± 4.59	9.53 ± 3.94	1.175	0.243
Physical abuse	7.87 ± 4.29	7.42 ± 3.53	0.543	0.588
Sexual abuse	6.61 ± 3.46	5.29 ± 1.33	2.256	0.026*
Emotional neglect	15.27 ± 4.78	15.16 ± 4.48	0.121	0.904
Physical neglect	11.18 ± 4.53	10.42 ± 3.33	0.891	0.375
CTQ	65.44 ± 21.64	61.03 ± 16.95	1.070	0.287

*p<0.05; student t testi.

model the relationship between the scales. Analyses were carried out with the help of SPSS 22.0 and AMOS 21.0 programs. A significance level of $p < 0.05$ was selected.

Results

When the sociodemographic characteristics of the study participants were examined, it was found that 62% were women, 76% lived in the city, and their average age was 36.29 ± 13.21 . When the answers given by the participants to the questions about the family were examined, it was found that 49% of the patients were raised by their families with sufficient control, 53% thought that the way they were raised contributed to their disease.

Cronbach's alpha values were calculated for the reliability of the CTQ, PFS and BAI scales and subscales in this study. As a result of the analysis, CTQ, PFS, BAI Cronbach Alpha values were found to be 0.91, 0.80, 0.91, respectively.

Total score averages of the scales of the BAI, PFS, and CTQ were 24.13 ± 13.02 , 109.88 ± 20.21 , and 63.76 ± 20.01 , respectively (Table 1).

Beck anxiety scale scores (women= 27.34 ± 12.7 , men= 18.89 ± 11.92 , $p = 0.001^*$) and sexual abuse subscale scores (women= 6.61 ± 3.46 , men= 5.29 ± 1.33 , $p = 0.026^*$) of women are higher than men (Table 2).

As seen in the table, the regression coefficient (correlation) between CTQ and BAI is not statistically significant ($p > 0.05$). It was determined that there was a negative, low-level relationship ($r = -0.213$) between CTQ and PFS. It was determined that when CTQ increased by one unit, the PFS value would change by $\beta = -0.215$ units. Similarly, there was determined that there was a negative, low-level relationship ($r = -0.372$) between PFS and Beck anxiety scale (Figure 1).

It was found that when PFS increases by one unit, the Beck anxiety value will change by $\beta = -0.240$ units.

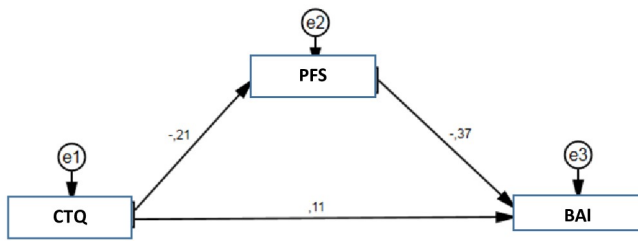


Figure 1. Level of influence of scales on each other.

Discussion

This study examined the relationship between anxiety, childhood trauma, and resilience in patients with Generalized anxiety disorder. The result of this study is surprising in some ways, contrary to expectations. It was determined that childhood traumas negatively predicted psychological resilience, while psychological resilience predicted anxiety level negatively as expected, albeit at a low level.

While the mean PFS total score was 131.03 in a study conducted in the general population, it was 109.88 in our study; While the CTQ total score average was 44.12, it was found to be 63.76 in our research. Our result, as expected, found that childhood trauma scale scores were higher and psychological flexibility scale scores were lower in anxiety patients compared to the general population. Low psychological flexibility has been reported in mental health dysfunctions, including depression and anxiety disorders [20].

In our literature review, we found that there was a positive relationship between childhood abuse and neglect and depression, while a negative relationship was reported between psychological resilience and depression and childhood abuse and neglect. In another study, those who reported being more negatively affected by their trauma reported lower levels of psychological flexibility. [21,2]. A similar result in our study is the negative relationship between resilience and anxiety. However, as we mentioned in the introduction section, most studies show that childhood traumas increase psychological resilience. In the face of adversity experienced early in life, outcomes can vary significantly from one person to another. These differences have been shown to be influenced by the duration and severity of adversities as well as the timing of positive interventions [22]. This may be because individuals who still feel the negative effects of the trauma, they experienced have not developed the psychological flexibility to reduce the impact of the trauma. After all, resilience is an ongoing, dynamic process.

There was no significant relationship between childhood trauma and anxiety in patients with GAD in this study. This does not mean that there is less childhood trauma in patients with GAD. For E.g.; In a study, groups with childhood trauma such as social anxiety disorder and post-traumatic stress disorder were compared with controls, and significant differences were found between them in terms of flexibility. Both disorder groups were reported to have significantly lower levels of psychological resilience than healthy controls [23]. However, we would expect traumas to have a significant relationship with anxiety level

in all these GAD patients. We think that the fact that the patients are not newly diagnosed and drug-naive affects the results. Additionally, when Bonano's study is examined, it was stated that the concepts of flexibility and durability could not be examined clearly. Correlates of resilient outcomes are often so modest that it is not possible to accurately determine who will be resilient to potential trauma and who will not. Widely used resilience surveys essentially ignore this paradox by including only a few significant predictors. That is the resilience paradox [24].

The sample size and cross-sectional nature of our study are some of its drawbacks. In patients with generalized anxiety disorder, depression is also prevalent. The fact that all other mental illnesses were not disregarded by structured interviews is a drawback of this study. The presence of sub-syndromic depressive symptoms, although not at the level of major depressive disorder, may have affected our results. Another limitation of the study is that the scales are self-assessment, and patients may have hidden some information. Due to the cross-sectional design of the study, it cannot be said that there is a definitive causal relationship between the issues we evaluated in the patient group.

Conclusion

In conclusion, the most important findings of our study are that there was a negative relationship between childhood traumas and psychological resilience in those diagnosed with generalized anxiety disorder and no significant relationship between childhood traumas and anxiety severity. In order to confirm and understand our current results, considering the limitations of our study, controlled-comparative studies with larger samples and a control group are needed in the specific generalized anxiety disorder.

Ethical approval

Ethical approval for this study was received from Hatay Mustafa Kemal University Non-Interventional Clinical Research Ethics Committee (Date: 16.06.2022, Decision no: 06).

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