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ORIGINAL RESEARCH

Childhood Traumas and Depressive Symptoms: The Moderating Role of Anxiety Sensitivity

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Purpose: Depression is one of the most common public health problems. Considering the frequency of childhood trauma in people with depressive symptoms, determining mediating factors is important in understanding the relationship between them. Our study aimed to evaluate the mediating effect of anxiety sensitivity, one of the cognitive structures that plays a role in the etiology and maintenance of psychopathologies, on depression symptoms of childhood traumas.

Patients and Methods: The study included 110 participants aged between 18 and 65, diagnosed with depression, and applied to the psychiatry outpatient clinic. Of the participants, 35 were male and 75 were female. The majority of participants were in the 18–25 age group (39.1%), followed by a smaller percentage in the 25–35 age group (32.7%). The Beck Depression Inventory (BDI-I), Childhood Trauma Questionnaire (CTQ), and Anxiety Sensitivity Index (ASI-3) were administered to participants between 15 February and 15 April 2024.

Results: When the sample was examined according to the history of depressive symptoms, it was found that the score of the cognitive subscale of ASI-3 and the scores of the physical neglect, emotional neglect, and emotional abuse subscales of the CTQ were significantly higher in the group with depressive symptoms. When the mediating effect of the scores of "Emotional neglect", "Physical neglect", and "Emotional abuse" subscales of CTQ, and the score of "Cognitive" subscale of ASI-3 score was examined with regression models, it was found that the history of emotional neglect and abuse in childhood predicted depressive symptoms through the cognitive sub-group of AS.

Conclusion: In our study, it was shown that childhood trauma, which could cause a person to evaluate stressful life events as more depressogenic and the formation of negative cognitions about themselves and the world, predicted the severity and occurrence of depressive symptoms through fear of cognitive dysfunction.

Keywords: childhood trauma, depression, anxiety sensitivity

Introduction

Depression is one of the most common public health problems, accounting for 4.4% of the worldwide disease burden.[1] The World Health Organization (WHO) estimates that the disease burden of major depressive disorder (MDD) will rank first by 2030.[2] The lifetime risk of MDD varies between countries between 15% and 18%, and it is estimated that 350 million people of all ages are depressed worldwide.[1] Major depressive disorder (MDD) is the most prevalent and disabling mental disorder, the global prevalence of MDD in 2019 is 2.49%.[3] Considering the prevalence and serious consequences of depression, it is vital to uncover the factors that influence it.

Adverse childhood experiences, like being exposed to abuse, neglect, witnessing violence at home or in the community, can have enduring impacts on a person's life. These experiences can interfere with a child ability to learn, form relationships, develop socially, and solve problems.[4] Traumas experienced during childhood can have negative effects on mental health in the long term.[5] Studies have found that childhood traumas can lead to low self-esteem,[6] increased depression,[7,8] anxiety disorder,[7,8] alcohol-substance abuse,[9] dissociative disorder,[10] suicide risk,[11] obsessive

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compulsive disorder[5] and behavioral problems.[4] Studies have shown that those who have been traumatized in early childhood have an earlier onset of depression, longer-duration depression, more severe symptoms, greater deterioration, and more episodes of depression.[12,13]

However, research has mostly focused on identifying the symptoms and problems experienced by children exposed to trauma,[7,14–17] fewer studies have been conducted to examine the relationship between childhood traumas and psychopathology.[18,19] Although specific pathways from childhood trauma to psychopathology have been proposed in some theories, the relationship between specific psychopathologies such as depression and anxiety disorders and childhood traumas remains unclear.[20,21]

The cognitive model proposes that the pathway between early childhood events and adult psychopathology may be mediated by cognitions about oneself and others.[22,23] One of the cognitive models that has been suggested to play a role in the etiology and maintenance of psychopathologies is anxiety sensitivity (AS), which is defined as the fear of the social, cognitive or physical consequences of sensations.[24,25] AS is associated with anxiety disorders, especially panic disorder. It has been shown to play a role in the emergence and/or maintenance of post-traumatic stress disorder, depression, and alcohol and substance use disorders.[26]

Current findings suggest that anxiety-depression comorbidity is insufficient to explain the relationship between anxiety sensitivity and depression. When the relationship between anxiety sensitivity and depression was examined, it was stated that especially the cognitive component of anxiety sensitivity was associated with depression.[27] It was stated that rumination, as a cognitive process, might mediate the observed relationship between the cognitive component of AS and depression severity.[28]

It has been shown that childhood traumas can lower the stress threshold required to trigger the onset of depression in people by affecting their stress response systems. Thus, it has been stated that, with its sensitizing effect, it may increase the individual's vulnerability to future stressful events and predispose to depression. In other words, it is known that childhood trauma can lead to increased sensitivity to future negativities or negative events.[29,30]

The relationship between childhood traumas and depression has been shown in many studies. However, data on how a history of childhood trauma causes depression are limited. Considering the frequency of childhood trauma in people with depressive symptoms, determining mediating factors is important in understanding the relationship between them and defining possible interventions.

The aim of this study was to determine whether childhood trauma was associated with increased depression symptoms, and if so, whether anxiety sensitivity mediated or moderated this relationship.

Materials and Methods

Participants

The study was conducted after obtaining approval from the Ethics Committee decree dated 14.02.2024 and numbered 54 of Sancaktepe Şehit Prof. Dr. İlhan Varank Training and Research Hospital. The patients were given full information about the study protocol and written informed consent was obtained. The study was conducted in accordance with the Declaration of Helsinki. The study included individuals who applied to the psychiatric outpatient clinic between 15 February and 15 April 2024. Inclusion criteria were defined as being followed up with a diagnosis of depression, being aged 18–65 years and having at least a primary school graduate. Mental retardation, schizophrenia spectrum disorder, depression with psychotic features or bipolar spectrum disorder, dementia and/or organic mental disorders, and being under the influence/withdrawal of alcohol and substances were exclusion criteria for the study.

A total of 137 patients who met the study criteria and were randomly selected were evaluated. Patients diagnosed with depression with psychotic features (n=16), bipolar spectrum disorder (n=12) and patients with incomplete scales (n=11) were excluded from the study. As a result, 110 patients constituted the sample of the study. Data were collected through face-to-face interviews and self-report scales.

A sociodemographic data form, the Beck Depression Inventory (BDI-I), the Anxiety Sensitivity Inventory (ASI-3), and the Childhood Trauma Scale (CTQ) were administered to the 110 patients who agreed to participate in the study and met the inclusion criteria.

Scales

Clinical and Sociodemographic Data Form

This detailed form was prepared by researchers to evaluate the sociodemographic characteristics of individuals and their personal characteristics related to their clinical conditions. The form consists of 9 categorical questions.

Beck Depression Inventory (BDI-I)

Beck et al developed this inventory to measure the physical, emotional, cognitive, and motivational symptoms of depression.[31] It is a self-assessment scale consisting of 21 questions. Each question is scored from 0 to 3. The highest possible score is 63, and a higher score indicates the severity of depression. It was adapted into Turkish by Hisli. The Cronbach's alpha value for the BDI-Turkish version was 0.80. The cut-off point of the scale was taken as 17 points and above.[32]

Anxiety Sensitivity Index-3 (ASI-3)

The ASI-3, which consists of three subscales: Physical, Social, and Cognitive, consists of a total of 18 items, six items in each subscale. It provides a five-point Likert type measurement; "0" means very little and "4" means a lot.[24] The scale has no cut-off score. A high total score indicates increased severity of anxiety sensitivity. In the Turkish validity and reliability study, it was determined that the internal consistency of ASI-3 was high (Cronbach alpha = 0.93), and test-retest reliability was quite good ($r=0.64$, $p<0.001$).[33]

Childhood Trauma Scale (CTQ)

The scale, developed by Bernstein et al, consists of five subscales covering childhood sexual abuse, physical abuse, emotional abuse, emotional neglect, physical neglect, and a combined total score.[34] A Turkish validity and reliability study was conducted by Şar et al[35]. In the Turkish adaptation and validity and reliability study, the Cronbach's alpha value, which showed the internal consistency of the scale, was found as 0.93. The scale comprises 28 questions and uses a 5-point Likert-type self-report, with scores ranging from 1 to 5. While the scores of the subscales are between 5–25, the total score of the scale is between 25–125. Exceeding the limit of 5 points for sexual and physical abuse, 7 points for physical neglect and emotional abuse, 12 points for emotional neglect, and 35 points for the entire scale should be considered as positive reporting[35].

Statistical Analysis

The patients' data were analyzed using the IBM Statistical Package for the Social Sciences (SPSS) for MacOS 29.0 (IBM Corp., Armonk, NY) package program. The sample was evaluated by dividing it into two according to the BDI cut-off score. For categorical data, frequency and percentage were used, and for continuous data, median, minimum and maximum descriptive values were used. The Mann–Whitney *U*-test was used for comparisons between groups and the Chi-square or Fisher's exact test was used for comparisons of categorical variables. Spearman correlation analysis was used to examine the relationship between continuous variables. Regression analysis was used to determine the relationship between CTQ and BDI with the relevant ASI as the mediating variables. The moderated analyses were conducted using the PROCESS macro for SPSS, as provided by Hayes.[36] The bootstrap estimates were set at 5000, generating 95% bias-corrected confidence intervals for the observed indirect conditional effects. Results were considered statistically significant if the p-value was less than 0.05.

Results

Sociodemographic characteristics were evaluated according to the sample's depressive symptoms (Table 1). When the presence of depressive symptoms was evaluated with clinical scales, it was found that the score of cognitive subscale of ASI-3 and the scores of the physical neglect, emotional neglect, and emotional abuse subscales of CTQ were significantly higher in the group with depressive symptoms (Table 2). The correlation of the scales is shown in Table 3.

The mediating effect of the scores of "Emotional neglect", "Physical neglect", and "Emotional abuse" subscales of CTQ affecting depressive symptoms and the score of "Cognitive" subscale of ASI-3 were examined using linear regression models (Table 4). A model was created for each CTQ subscale that affected depressive symptoms, and the

Table 1 Distribution of Demographic Characteristics of Patients According to Depression Status

Variables	Total (n=110)	Depression (-) (n=56)	Depression (+) (n=54)	p-value
	n (%)	n (%)	n (%)	
Age				**0.030**
18–25 years	43 (39.1)	**18 (32.1)**	**25 (46.3)**	
26–35 years	36 (32.7)	**16 (28.6)**	**20 (37)**	
36 years or over	31 (28.2)	**22 (39.3)**	**9 (16.7)**	
Sex				0.780
Female	75 (68.2)	37 (66.1)	38 (70.4)	
Male	35 (31.8)	19 (33.9)	16 (29.6)	
Educational status				0.864
Primary school	17 (15.5)	9 (16.1)	8 (14.8)	
High school	38 (34.5)	18 (32.1)	20 (37)	
University and above	55 (50)	29 (51.8)	26 (48.1)	
Marital status				0.096
Married	45 (41.3)	26 (46.4)	19 (35.8)	
Single	54 (49.5)	28 (50)	26 (49.1)	
Divorced	10 (9.2)	2 (3.6)	8 (15.1)	
Economical status				**0.007**
Low	15 (13.6)	**2 (3.6)**	**13 (24.1)**	
Middle	66 (60)	**37 (66.1)**	**29 (53.7)**	
Good	29 (26.4)	**17 (30.4)**	**12 (22.2)**	
Working status				0.846
Yes	56 (50.9)	29 (51.8)	27 (50)	
No	30 (27.3)	16 (28.6)	14 (25.9)	
Student	24 (21.8)	11 (19.6)	13 (24.1)	
Living with whom?				0.546
Nuclear family	101 (91.8)	53 (94.6)	48 (88.9)	
Extended family	6 (5.5)	2 (3.6)	4 (7.4)	
Living alone	3 (2.7)	1 (1.8)	2 (3.7)	
Smoking	52 (47.3)	**21 (37.5)**	**31 (57.4)**	**0.037**
Alcohol use	9 (8.2)	4 (7.1)	5 (9.3)	0.740

Note: Bold: p<0.05.

Table 2 Distribution of Clinical Scale Scores According to Depressive Symptoms

Variables	Total (n=110)	Depression (-) (n=56)	Depression (+) (n=54)	p-value
	Median (Min-Max)	Median (Min-Max)	Median (Min-Max)	
Childhood Trauma Questionnaire	**39 (25–100)**	**37 (25–90)**	**44 (25–100)**	**<0.001**
Emotional neglect	**14 (5–25)**	**11 (5–24)**	**16 (5–25)**	**<0.001**
Physical neglect	**7 (5–20)**	**6 (5–15)**	**7 (5–20)**	**0.025**
Emotional abuse	**8 (5–22)**	**7 (5–22)**	**9 (5–22)**	**<0.001**
Physical abuse	5 (5–25)	5 (5–25)	5 (5–19)	0.954
Sexual abuse	5 (5–25)	5 (5–14)	5 (5–25)	0.670
Anxiety Sensitivity Index	24 (0–71)	21 (0–53)	27 (0–71)	0.054
Physical	6 (0–24)	8 (0–19)	5 (0–24)	0.602
Cognitive	**10 (0–28)**	**7 (0–19)**	**12 (0–28)**	**<0.001**
Social	6 (0–20)	5 (0–20)	7 (0–19)	0.252

Note: Bold p<0.05.
Abbreviations: Min, minimum; Max, maximum.

Table 3 Relationships Between Patients' Scales Scores

		Beck Depression Inventory	Childhood Trauma Questionnaire Total	Emotional Neglect	Physical Neglect	Emotional Abuse	Physical Abuse	Sexual Abuse	Anxiety Sensitivity Index Total	Physical	Cognitive	Social
Beck Depression Inventory	r	1.000	**0.438**	**0.465**	**0.241**	**0.427**	0.031	0.047	**0.256**	0.057	**0.395**	0.157
	p		**<0.001**	**<0.001**	**0.011**	**<0.001**	0.747	0.623	**0.007**	0.555	**<0.001**	0.100
Childhood Trauma Questionnaire total	r	**0.438**	1.000	**0.858**	**0.734**	**0.735**	**0.532**	**0.485**	**0.248**	0.112	**0.336**	0.149
	p	**<0.001**		**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**0.009**	0.242	**<0.001**	0.119
Emotional neglect	r	**0.465**	**0.858**	1.000	**0.508**	**0.477**	**0.322**	**0.367**	**0.241**	0.136	**0.337**	0.082
	p	**<0.001**	**<0.001**		**<0.001**	**<0.001**	**0.001**	**<0.001**	**0.011**	0.157	**<0.001**	0.392
Physical neglect	r	**0.241**	**0.734**	**0.508**	1.000	**0.425**	**0.365**	**0.317**	**0.220**	0.137	**0.230**	**0.219**
	p	**0.011**	**<0.001**	**<0.001**		**<0.001**	**<0.001**	**0.001**	**0.021**	0.154	**0.016**	**0.021**
Emotional abuse	r	**0.427**	**0.735**	**0.477**	**0.425**	1.000	**0.341**	**0.362**	**0.201**	0.035	**0.287**	0.163
	p	**<0.001**	**<0.001**	**<0.001**	**<0.001**		**<0.001**	**<0.001**	**0.035**	0.715	**0.002**	0.088
Physical abuse	r	0.031	**0.532**	**0.322**	**0.365**	**0.341**	1.000	**0.442**	−0.034	−0.005	0.016	−0.085
	p	0.747	**<0.001**	**0.001**	**<0.001**	**<0.001**		**<0.001**	0.726	0.955	0.871	0.379
Sexual abuse	r	0.047	**0.485**	**0.367**	**0.317**	**0.362**	**0.442**	1.000	0.132	0.148	0.114	0.034
	p	0.623	**<0.001**	**<0.001**	**0.001**	**<0.001**	**<0.001**		0.169	0.122	0.236	0.724
Anxiety Sensitivity Index total	r	**0.256**	**0.248**	**0.241**	**0.220**	**0.201**	−0.034	0.132	1.000	**0.786**	**0.834**	**0.801**
	p	**0.007**	**0.009**	**0.011**	**0.021**	**0.035**	0.726	0.169		**<0.001**	**<0.001**	**<0.001**
Physical	r	0.057	0.112	0.136	0.137	0.035	−0.005	0.148	**0.786**	1.000	**0.465**	**0.482**
	p	0.555	0.242	0.157	0.154	0.715	0.955	0.122	**0.000**		**<0.001**	**<0.001**
Cognitive	r	**0.395**	**0.336**	**0.337**	**0.230**	**0.287**	0.016	0.114	**0.834**	**0.465**	1.000	**0.558**
	p	**<0.001**	**<0.001**	**<0.001**	**0.016**	**0.002**	0.871	0.236	**<0.001**	**<0.001**		**<0.001**
Social	r	0.157	0.149	0.082	**0.219**	0.163	−0.085	0.034	**0.801**	**0.482**	**0.558**	1.000
	p	0.100	0.119	0.392	**0.021**	0.088	0.379	0.724	**<0.001**	**<0.001**	**<0.001**	

Note: Bold: p<0.05.

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Table 4 Examination of the Direct Effect of Childhood Trauma and the Mediating Effect of Anxiety Sensitivity on Depressive Symptoms

Model 1 Coefficients							
Model 1	**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**p-value**	**95% Confidence Interval**	
	B	**Standard Error**	**Beta**			**Lower limit**	**Upper Limit**
Constant	6.111	2.723		2.244	0.027	0.713	11.508
Emotional neglect	0.928	0.184	0.436	5.039	<0.001	0.563	1.293
Dependent variable: Beck Depression Inventory							
Constant	4.549	1.664		2.733	0.007	1.250	7.848
Emotional neglect	0.409	0.113	0.330	3.635	<0.001	0.186	0.632
Dependent variable: Anxiety Sensitivity Cognitive subscale							
Constant	3.890	2.700		1.441	0.153	−1.462	9.242
Emotional neglect	0.728	0.187	0.342	3.892	<0.001	0.357	1.099
Cognitive	0.488	0.151	0.285	3.235	0.002	0.189	0.788
Dependent variable Beck Depression Inventory							
Model 2 Coefficients							
Model 2	**Unstandardized coefficients**		**Standardized coefficients**	**t**	**p-value**	**95% Confidence Interval**	
	B	**Standard error**	**Beta**			**Lower limit**	**Upper limit**
Constant	12.522	2.787		4.492	<0.001	6.997	18.047
Physical neglect	0.848	0.340	0.233	2.495	0.014	0.174	1.521
Dependent variable: Beck Depression Inventory							
Constant	6.755	1.631		4.141	<0.001	3.522	9.989
Physical neglect	0.455	0.199	0.215	2.288	0.024	0.061	0.849
Dependent variable: Anxiety Sensitivity Cognitive subscale							
Constant	8.299	2.806		2.958	0.004	2.738	13.861
Physical neglect	0.563	0.325	0.155	1.732	0.086	−0.081	1.208
Cognitive	0.625	0.154	0.364	4.066	<0.001	0.320	0.930
Dependent variable: Beck Depression Inventory							
Model 3 Coefficients							
Model 3	**Unstandardized coefficients**		**Standardized coefficients**	**t**	**p-value**	**95% Confidence Interval**	
	B	**Standard error**	**Beta**			**Lower limit**	**Upper limit**
Constant	9.072	2.311		3.926	<0.001	4.492	13.652
Emotional abuse	1.141	0.242	0.413	4.708	<0.001	0.661	1.621

(*Continued*)

Table 4 (Continued).

Dependent variable: Beck Depression Inventory							
Constant	6.895	1.436		4.803	<0.001	4.050	9.741
Emotional abuse	0.384	0.151	0.238	2.548	0.012	0.085	0.682
Dependent variable: Anxiety Sensitivity Cognitive subscale							
Constant	5.317	2.407		2.210	0.029	0.547	10.088
Emotional abuse	0.932	0.236	0.337	3.951	<0.001	0.464	1.400
Cognitive	0.545	0.146	0.317	3.719	<0.001	0.254	0.835
Dependent variable: Beck Depression Inventory							

mediating effect of the score of the "Cognitive" subscale of ASI-3 was examined in the relevant model. According to Baron and Kenny, the first prerequisite for the mediation model is that the direct effect of the independent variable (CTQ score) on the dependent variable (depressive symptom) must be significant.[37] When the models were examined, it was found that the direct effect between the independent variable and the dependent variable was significant in all three models ($p<0.05$). The second prerequisite for the mediation effect is that the effect of the independent variable (CTQ) on the mediating variable (cognitive subscale of ASI-3) must also be significant. In all three models, the effect between the independent variable and the mediator variable was found to be significant ($p<0.05$). The last prerequisite is that in the combined effect of the independent variable and the mediator variable on the dependent variable, the mediator variable must also have an effect on the dependent variable. The preceding models were evaluated using the Hayes method[36] and the indirect conditional effects were subsequently calculated. In Model 1 and Model 3, it was observed that emotional neglect and emotional abuse subscales scores had a significant effect on depressive symptoms through the cognitive subscale score. In Model 2, it was observed that cognitive subscale score had no effect on depression along with the physical neglect subscale score and was not found to be significant.

When Model 1 was examined, it was observed that the total effect of the emotional neglect subscale score on depression according to standardized coefficients was 43.6%. With the effect of the emotional neglect subscale score and the cognitive subscale score, the direct effect of the emotional neglect subscale score on depression was 34.2%, and the indirect effect of the cognitive subscale score was 28.5%. Considering the share of indirect impact in the total impact, it was found as 21.5%. It was observed that 21.5% of the direct effect on depression was provided by the effect due to the mediator variable, and the remaining 78.5% was provided by the direct effect on the emotional neglect subscale score (Figure 1).

When Model 3 was examined, it was observed that the total effect of the emotional abuse subscale score on depression according to standardized coefficients was 41.3%. With the effect of the emotional abuse subscale score and the cognitive subscale score, the direct effect of the emotional abuse subscale score on depression was 33.7%, and the indirect effect of cognitive subscale score was 31.7%. Considering the share of indirect impact in the total impact, it was found as 18.3%. It was determined that 18.3% of the direct effect on depression was achieved through the mediator variable, and the remaining 81.7% was achieved through the direct impact on the emotional neglect subscale score (Figure 2).

Discussion

In our study, the effects of childhood traumas and AS on depressive symptoms in outpatients admitted to the psychiatry clinic were examined. It was shown that AS predicted depressive symptoms in patients with a history of emotional neglect and abuse during childhood, through the cognitive subscale (Table 4).

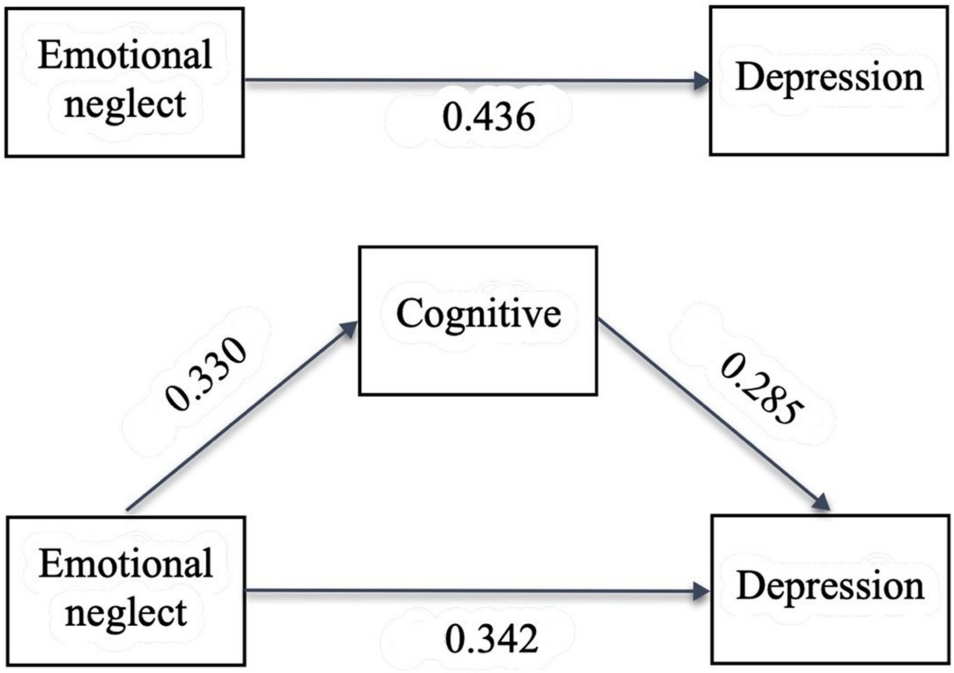

Figure 1 Mediation Effect Model 1.

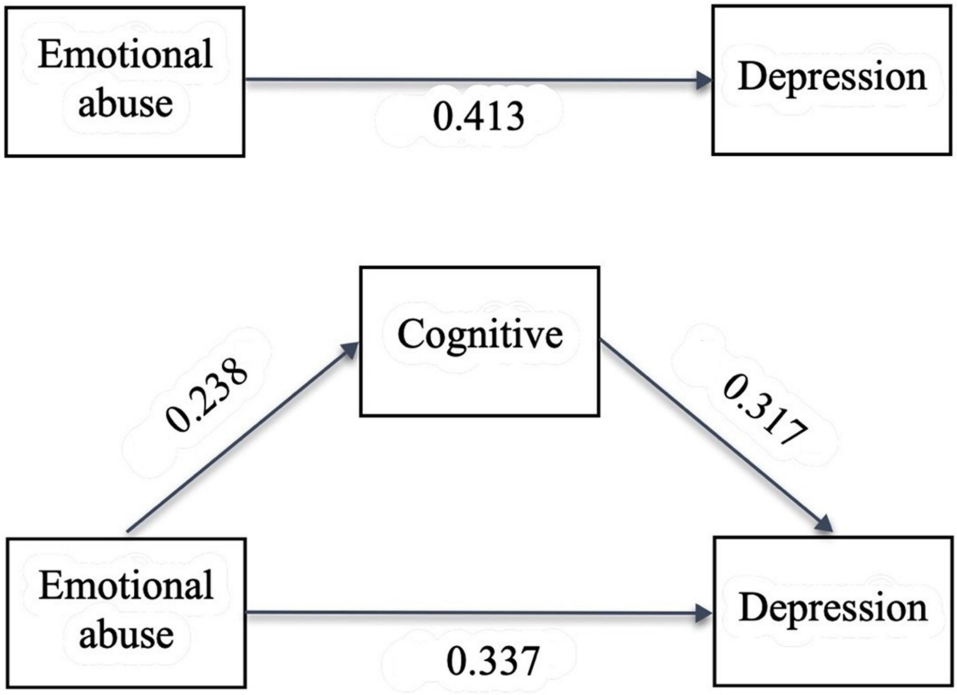

Figure 2 Mediation Effect Model 3.

AS has been closely associated with anxiety disorders, especially panic disorder. However, studies conducted in the following years focused on the relationship between AS and other mental diseases, especially depression, and studies on this subject gained momentum. When the relationship between depression and AS was examined, the cognitive component came

to the fore and was found to be closely related to depressive symptoms.[28,38–40] In their study, Taylor et al showed that the cognitive component of AS was related to the severity of depression, even after anxiety symptoms were controlled.[27]

That fear of cognitive dyscontrolling, represented by the cognitive component of AS, might represent a "depression-specific form" of AS.[27,41–43] Cox et al suggested that beliefs about the negative consequences of depression symptoms might lead to an increased focus on these symptoms and their consequences, stating that increased concerns about cognitive control impairment created a "depression sensitivity".[28]

The relationship between fear of cognitive dyscontrol and depressive symptoms was also confirmed by longitudinal studies.[38,44] It is stated that fear of cognitive dyscontrolling may continue beyond the acute major depressive episode in some individuals and may represent a psychological wound resulting from the experience of depression.[26]

Fear of cognitive control impairment can increase people's depressive symptoms and increase the likelihood of relapse of depressive episodes.[26] It is also shown that AS increases the risk of inappropriate responses to emotional experiences.[39,45] Our study also showed that the score of the cognitive subscale of ASI-3 was significantly higher in the group with depressive symptoms and that emotional maltreatment mediated the formation of depressive symptoms.

It has been shown that emotional neglect and emotional abuse, defined as emotional maltreatment, can lead to depressive symptoms and an increase in the severity of symptoms during adolescence and adulthood.[46,47] In the United States National Child Traumatic Stress Network (NCTSN) Core Data Set (CDS), emotional abuse and neglect are stated to be the most common childhood trauma, accounting for approximately one-quarter (24%) of all cases.[48–50] It has been stated that emotional neglect and abuse are more hidden and silent than other traumas, are difficult to separate from dysfunctional parenting attitudes, and are less recorded.[46,47,50] Because emotional maltreatment experiences during childhood are directly applied by primary attachment figures, they can be especially effective on mental health.[51] Emotional maltreatment has been shown to have a stronger impact on long-term mental health, and particularly depression, compared with other childhood traumas such as physical and sexual abuse.[52,53]

Childhood is a period in which a person's cognitions and schemas about oneself and the world are shaped. People who have experienced emotional maltreatment by a caregiver or close family member are more likely to interpret stressful events in a depressogenic manner.[54] Direct and repeated imposition of depressive cognitions by abusers such as "You'll never make it" may lead to the establishment of negative cognitions and schemas about oneself, such as being worthless, unsuccessful, and unloved.[51]

Studies investigating the effect of childhood trauma on depression have examined the moderating effect of cognitive factors, emotion regulation strategies, problem solving skills.[19,55] Cognitive factors that were found to be mediators of the effect of childhood trauma on depression included problem-solving strategies, rumination, and overgeneralisation.[55] Emotional abuse in childhood was shown to influence depressive symptoms through maladaptive emotion regulation strategies and emotional neglect through a deficiency of adaptive emotion regulation strategies.[19]

It is shown that people who experience emotional maltreatment may fail to learn how to recognize and differentiate their own and others' emotions and how to manage difficult emotions.[56] This situation can also affect people's responses to stressful events. Children who have been exposed to emotional trauma, especially by a caregiver or close family member, are likely to experience relationships as rejecting or insecure, and to think that others and the world are unsafe.[57] A history of emotional abuse in childhood may sensitize an individual to stressful events in current life. It has been shown that emotional maltreatment can lead to the development of vulnerability for depression by affecting stress sensitivity and cognitive style.[58] Although there are studies showing that emotional maltreatment is closely related to depression, the fact that psychopathology is not observed in every person with a history of maltreatment indicates that there is a need to elucidate the mechanisms in this relationship.

Conclusion

In our study, it was shown that emotional maltreatment, which could cause a person to evaluate stressful life events as more depressogenic and the formation of negative cognitions about themself and the world, predicted the severity and occurrence of depressive symptoms through fear of cognitive dysfunction, which had a hereditary component, defined as depression sensitivity in the literature.

Fear of cognitive lack of control, which is also defined as depression sensitivity in the literature, can explain depressive symptoms in people with a cognitive model when combined with emotional maltreatments that may cause negative attributions, cognitions and schemas about oneself and the world.

Our study has important implications for treatment and prevention strategies of depressive symptoms. Considering the moderating role of AS, it may be a useful target for preventive interventions among individuals experiencing emotional maltreatment. Current treatments for child abuse may aim to prevent the subsequent development of depressive symptoms by helping to reduce people's AS levels. These findings also create new target areas for therapies related to depressive symptoms.

There were some limitations in our study. First, because it was a cross-sectional study, causal conclusions could not be obtained regarding the relationship between childhood traumas, AS, and depressive symptoms. The results should be improved with longitudinal, follow-up studies. Secondly, because the CTQ used in our study was in self-report style, our data set was based on self-reports rather than verification of reports. The results should be developed and expanded through longitudinal studies with large samples.

Despite the noted limitations, this study made a significant contribution to the literature by showing that cognitive concerns regarding AS partially explained the strong association between child maltreatment and adult depressive symptoms. Although this study found significant evidence for the role of anxiety-sensitive cognitive concerns in the etiology of depressive symptoms, further research is needed.

Data Sharing Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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