



RESEARCH ARTICLE / ARAŞTIRMA YAZISI

Investigation of Childhood Traumas, Emotion Regulation Processes and Dissociation as Predictives of Social Anxiety

Sosyal Kaygının Yordayıcısı olarak Çocukluk Çağı Travmaları, Duygu Düzenleme Süreçleri ve Dissosiyasyonun İncelenmesi

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Abstract:

The aim of this study is to examine the predictors of childhood traumas, emotion regulation processes and dissociation in terms of social anxiety. 451 participants between the ages of 18-55 were included in the study, in which the relational screening model and snowball sampling method were used. Data were collected using Demographic Information Form, Childhood Trauma Scale, Emotion Regulation Processes Scale, Dissociative Experiences Scale and Liebowitz Social Anxiety Scale. Simple linear regression, multiple regression and hierarchical regression analyzes were applied for the analyses. As a result of the analysis, the increase in the antecedent-focused emotion regulation processes, which is the sub-dimension of emotion regulation processes, caused a decrease in social anxiety symptoms ($R^2=0.027$, $F=6.208$, $p=0.002$); it was determined that the increase in absorption, which is the sub-dimension of dissociative experiences, causes an increase in social anxiety symptoms ($R^2=0.059$, $F=9.409$, $p=0.001$). In the hierarchical regression analysis, it was determined that childhood traumas ($\beta = 0.271$) and dissociative experiences ($\beta = 0.291$) had a positive effect on social anxiety, while emotion regulation processes ($\beta = -0.144$) had a negative effect. In addition, the rate of explaining social anxiety by childhood traumas alone ($R^2=0.020$); the ratio of childhood traumas and dissociative experiences to explain social anxiety ($R^2=0.056$); the coexistence of childhood traumas, dissociative experiences and emotion regulation processes explained social anxiety as high ($R^2=0.067$). When the findings are used both in the structuring of psychotherapies in clinical studies and in the structuring of health policies to protect community mental health, they can be helpful in the formation and/or treatment of social anxiety.

Keywords: Social Anxiety, Childhood Traumas, Emotion Regulation, Dissociation

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Öz:

Bu araştırmanın amacı çocukluk çağı travmaları, duygu düzenleme süreçleri ve dissosiyasyonun sosyal kaygı açısından yordayıcılığını incelemektir. İlişkisel tarama modeli ve kartopu örnekleme yönteminin kullanıldığı araştırmaya 18-55 yaş aralığında 451 katılımcı alınmıştır. Veriler Demografik Bilgi Formu, Çocukluk Çağı Travmaları Ölçeği, Duygu Düzenleme Süreçleri Ölçeği, Dissosiyatif Yaşantılar Ölçeği ve Liebowitz Sosyal Kaygı Ölçeği kullanılarak toplanmıştır. Analizler için basit doğrusal regresyon, çoklu regresyon ve hiyerarşik regresyon analizleri uygulanmıştır. Analizler sonucunda duygu düzenleme süreçlerinin alt boyutu olan öncül odaklı duygu düzenleme süreçlerindeki artışın sosyal kaygı belirtilerinde düşüşe sebep olduğu ($R^2=0.027$, $F=6.208$, $p=0.002$); dissosiyatif yaşantıların alt boyutu olan absorptiondaki artışın sosyal kaygı belirtilerinde artışa sebep olduğu ($R^2=0.059$, $F=9.409$, $p=0.001$) tespit edilmiştir. Hiyerarşik regresyon analizine sosyal kaygı üzerinde çocukluk çağı travmalarının ($\beta =0.271$) ve dissosiyatif yaşantıların ($\beta =0.291$) pozitif yönde, duygu düzenleme süreçlerinin ($\beta =-0.144$) ise negatif yönde etkili olduğu belirlenmiştir. Ayrıca tek başına çocukluk çağı travmalarının sosyal kaygıyı açıklama oranı ($R^2=0.020$); çocukluk çağı travmaları ile dissosiyatif yaşantıların birlikteliğinin sosyal kaygıyı açıklama oranı ($R^2=0.056$); çocukluk çağı travmaları, dissosiyatif yaşantılar ve duygu düzenleme süreçlerinin birlikteliğinin sosyal kaygıyı açıklama oranı ise ($R^2=0.067$) yüksek olarak belirlenmiştir. Bulgular gerek klinik çalışmalarda psikoterapilerin yapılandırılmasında ve gerekse toplum ruh sağlığını korumaya yönelik sağlık politikalarının yapılandırılmasında kullanıldığında sosyal anksiyetenin oluşması ve/veya tedavisinde yardımcı olabilir.

Anahtar Kelimeler: Sosyal Kaygı, Çocukluk Çağı Travmaları, Duygu Düzenleme, Dissosiyasyon

Introduction

Social anxiety disorder is characterized by persistent fear and avoidance of social situations due to fear of being evaluated by others (Schneier & Goldmark, 2015). In such situations, the anxiety is that the individual will say or do something that results in embarrassment or humiliation. These anxieties may be so prominent that they avoid most interpersonal encounters or endure such situations only with intense discomfort (Stein & Stein, 2008). It is known that social anxiety disorder is a common and long-lasting disorder (Magee, Eaton, Wittchen, McGonagle & Kessler, 1996; Ruscio et al., 2008; Stein et al., 2017). This disorder can be constantly painful, and as people with this disorder avoid social or performance situations, their school, work, and social life may be affected (Schneier & Goldmark, 2015). Therefore, they may avoid public speaking, expressing their opinions, and even making friends with their peers (Stein & Stein 2008).

It has been determined that the age of onset of social anxiety disorder is early (Stein & Stein 2008). Because of this finding, it is thought that experiences in the first period of life are important in terms of social anxiety. In the literature, it has been determined that childhood traumas are significantly more common in people with social anxiety (Bandelow et al., 2004; Kuo, Goldin, Werner, Heimberg & Gross, 2011). In some studies, it was found that childhood traumas or some types of childhood trauma predict social anxiety (Myers & Llera 2020; Nanda, Reichert, Jones & Flannery-Schroeder, 2015). For this reason, the relationship between social anxiety and childhood traumas is discussed in the present study.

The diagnostic criteria for social anxiety disorder suggest emotional and self-related processing difficulties; however, it has been suggested that DSM diagnostic criteria do not specifically address regulatory difficulties for social anxiety disorder. However, recently it has been determined that clinical studies focusing on emotion and

emotion regulation and adaptive emotion regulation efforts in social anxiety disorder are being conducted (Jazaieri, Morrison, Goldin & Gross, 2015). In the cognitive model, in which Hofmann (2007) presented the factors perpetuating social anxiety disorder based on the existing literature, low perceived emotional control was also considered as one of these factors. Hofmann (2007) argues that the literature believes that individuals with social anxiety have little control over their emotional responses in threatening social situations and that this lack of control can be easily noticed by other people.

In the study investigating the relationship between emotion regulation and social functioning, it was found that people who use reappraisal have closer relationships with their peers and are more liked by their peers, while people who use repression have very different social outcome patterns. People who use suppression are less likely to share their positive and negative feelings in their close relationships, avoid more, and feel uncomfortable with intimacy and sharing. It was determined that this emotional distance was clearly noticed by their peers and social support was less in all social areas (Gross & John, 2003). When we look at the literature, it is seen that emotion regulation is one of the factors that have a significant relationship with social anxiety.

In addition, the relationship between social anxiety disorder and dissociation has been discussed and investigated recently (Myers & Llera, 2020). It has been found that social anxiety disorder and dissociation are related and that dissociation predicts social anxiety (Belli et al., 2017; Myers & Llera 2020). At the same time, it has been determined in studies (Colic et al., 2020; Hoyer, Brauer, Crawcour, Klumbies & Kirschbaum, 2013; Schweden et al., 2006) that people with social anxiety disorder have more experience alienation from themselves and the environment, which is one of the sub-dimensions of dissociation. When we look at the literature, it is thought that the relationship between dissociation and social

anxiety is a relationship that has been researched more recently and new findings have been reached.

In summary, when the literature is examined, childhood traumas are high in people with social anxiety (Michail & Birchwood 2014), there is a strong relationship between social anxiety and emotion regulation strategies (Keil, Asbrand, Tuschen-Caffier & Schmitz, 2017), people with social anxiety disorder use avoidance and expressive suppression more, cognitive reappraisal, and expressive suppression, it was observed that their self-efficacy was lower (Werner, Goldin, Ball, Heimberg & Gross, 2011), while the impulse control domain of emotion regulation predicted social anxiety (Rusch, Westermann & Lincoln, 2012). At the same time, it is underlined that there are unique emotional regulation deficiencies in social anxiety disorder (Werner, Goldin, Ball, Heimberg & Gross, 2011). In addition, it has been reported that there is a relationship between social anxiety and dissociation, and that people with social anxiety disorder experience more shame during social interaction and accordingly experience more alienation from themselves and the environment (Colic et al. 2020). Myers and Llera (2020) in their study investigating the relationships of childhood traumas, emotion regulation and dissociation, found that as the social anxiety they experience increases, the dissociation they experience increases as the social anxiety they experience increases.

In the present study, the predictors of childhood traumas, emotion regulation processes and dissociation in terms of social anxiety are examined. In the studies conducted in the literature (Hoyer, Brauer, Crawcour, Klumbies & Kirschbaum, 2013; Keil, Asbrand, Tuschen-Caffier & Schmitz, 2017), the relationships between these factors were investigated. However, studies examining these factors together could not be found. In this study, the predictors of social anxiety level will be evaluated as a result of examining these factors together, and it is thought that the obtained findings may contribute to studies in the clinical field. In addition, it is thought that the results and method of the research can contribute to the literature, and the limitations of the study and their suggestions to the researchers.

The main problem of this study is: Are childhood traumas, emotion regulation processes and dissociation predictors of social anxiety? The sub-problems created and tested in this context are as follows:

Do childhood traumas (emotional neglect, physical neglect, emotional abuse, physical abuse, sexual abuse) predict the level of social anxiety symptoms at a statistically significant level?

Do emotion regulation processes (antecedent-focused emotion regulation processes and response-focused emotion regulation processes) predict the level of social anxiety at a statistically significant level?

Do dissociative experiences (amnesia, depersonalization/derealization and absorption) predict social anxiety level statistically significantly?

Methods

Research Model

In this study, which was designed as a quantitative research, the relational survey model, one of the general survey models, was used since it was aimed to determine

the existence of co-variance between two or more variables. Relational screening model is a research model that aims to determine whether two or more variables change together and to determine the degree and direction of the change (Karasar, 2000).

Sample

The research started with the approval of Marmara University Social Sciences Research Ethics Committee dated 07.09.2021 and protocol numbered 2021-4/23. The sample size of this study is calculated by using G*Power (Faul, Erdfelder, Lang & Buchner, 2007). An istatistical power analysis is conducted with α (alpha) 0.05 and beta 0.80. Effect size is assumed as medium for the power analysis. The total sample size is estimated for multiple regression as 77. As a result, it was determined that a sample group consisting of at least 77 people should be formed for the study. The sample of this study consists of 451 people. A total of 451 participants, 320 (71%) female and 131 (29%) male, were included in the study. 220 (48.8%) of the participants were undergraduate graduates, 120 (26.6%) graduates, 88 (19.5%) high school graduates, 5 (1.1%) secondary school graduates, 15 (3.3%) secondary school graduates and 3 (0.7%) of them were primary school graduates. When examined in terms of the financial situation variable, 16 (3.5%) of the participants had very low financial status, 39 (8.6%) were low, 254 (56.3%) were moderate, 132 (29.3%) were good, and 10 (2.2%) was found to be very good. When the marital status variable was examined, it was found that 279 (61.9%) of the participants were single, 155 (34.4%) were married, 13 (2.9%) were divorced, and 4 (0.9%) had lost their spouses. It was observed that 42 (9.3%) of the participants received psychological support, and 409 (90.7%) did not.

Data Collection Tools

Sociodemographic Information Form

The Sociodemographic Information Form prepared within the scope of the research to obtain information about the demographic characteristics of the participants includes questions on age, gender, educational status, financial situation, marital status, and whether they currently receive psychiatric/psychological support.

Childhood Trauma Scale (CTS)

"Childhood Traumas Scale", created by Bernstein et al., (1994), includes emotional neglect (items 5, 7, 13, 19, and 28), physical neglect (1, 4, 6, 2 .and 26.), emotional abuse (items 3, 8, 14, 18 and 25), physical abuse (items 9, 11, 12, 15 and 17), and sexual abuse (20., 21., 23., 24. and 27. items) consists of five sub-dimensions. The Turkish adaptation, validity and reliability study of the scale was conducted by Şar, Öztürk, and İkikardeş, and the Cronbach's alpha value was calculated as 0.93. While calculating the scale, the answers given to the positive items (2, 5, 7, 13, 19, 26, 28) are reversed (Şar, Öztürk & İkikardeş, 2012). In the current study, the Cronbach's alpha value of the scale was calculated as 0.85.

Dissociative Experiences Scale (DES)

Developed by Bernstein and Putnam (1987) to measure dissociation and consisting of 28 items, the scale is associated with identity, memory, awareness and cognition disorders, feelings of self-alienation and alienation from the environment, and the feeling of having lived before (Bernstein, Putnam 1987). The Turkish validity and reliability study of the scale was conducted by Hakim, Tutkun, and Şar (1995). The Cronbach's alpha value of the

scale was calculated as 0.91 (Yargic, Tutkun & Şar, 1995). In the reliability analysis performed in the current study, the Cronbach's alpha value of the scale was calculated as 0.96.

Emotion Regulation Processes Scale (ERPS)

The Emotion Regulation Process Scale, created by Schutte, Manes, and Malouff (2009), consists of 28 items and two sub-dimensions: antecedent-focused emotion regulation and reaction-focused emotion regulation (Schutte, Manes, and Malouff 2009). The Turkish adaptation of the scale was done by Aka (2011), and Cronbach's alpha was reported as 0.91 (Aka, 2011). In the current study, the Cronbach's alpha value of the scale was calculated as 0.91.

Liebowitz Social Anxiety Scale (LSAS)

The Liebowitz Social Anxiety Scale was used to measure social anxiety symptoms in the study. The 24-item scale, created by Liebowitz in 1987, includes items covering a wide range of difficulties experienced by people with social anxiety. 11 items of the scale examine social interaction and 13 items examine fear or anxiety and avoidance in social performance situations (Liebowitz 1987). The Turkish adaptation and validity and reliability study of the scale was carried out by Soykan, Özgüven, and Gençöz. The Cronbach's alpha values of the scale were reported as 0.96 for the fear or anxiety sub-dimension, 0.95 for the avoidance sub-dimension, and 0.98 for the whole scale (Soykan, Özgüven & Gençöz, 2003). In the current study, the Cronbach's alpha value was calculated as 0.96.

Process

Permission for the research was first obtained from Marmara University Social Sciences Institute Ethics Committee, dated 07.09.2021 and with protocol number 2021-4/23. Then, the Informed Voluntary Consent Form, Demographic Information Form, CTS, LSAS, ERPS and DES were delivered to the participants over the internet. Participants who approved the Informed Voluntary Consent Form completed the other scales in the order above. The study took an average of 20 minutes. During the data collection process, 480 participants over the age of 18 were reached. Following this process, the analysis of the collected data was made with the SPSS program.

IBM SPSS Statistics 22 (SPSS Inc., Chicago, IL) program was used for data analysis. It was determined that the data used in the research provided the assumption of normality distribution based on the skewness and kurtosis values. 29 participants, whose skewness and kurtosis values were outside the normality limits, were excluded from the study, and 29 participants with extreme values for the CTS were thus provided for the normality assumption for the CTS total score. Other analyzes were performed with 451 participant data. Since the skewness and kurtosis values were found to be between -1.5 and +1.5, it was determined that the scale scores showed a normal distribution (Tabachnick & Fidell, 2013). For this reason, parametric tests were used while making scale score comparisons. Cronbach alpha values were calculated by performing the reliability analysis of the scales used in the research. Cronbach alpha values of all scales were found to be quite reliable. The determination of whether the questions in the scales were perceived the same by the participants was tested with the Tukey Non-Additivity test and whether the questions were prepared in a way that would form an additive scale was tested with the Hotelling T² test. As a result, it was seen that the scales used provided summability (Hotelling T²=45943.705, p=0.001<0.05) and the answers given to the scale were different from each other (Tukey Non-Additivity p=0.001<0.05). In the analysis of data; descriptive categorical data were calculated as number (n) and percentage (%), and quantitative data were calculated as mean and standard deviation values, skewness, kurtosis, minimum and maximum values. Independent Sample t-Test was used for demographic comparisons with the scales used in the research. Whether there was a relationship between the quantitative data was examined using Pearson Correlation analysis. Simple linear regression, multiple regression and hierarchical regression analysis were performed to examine the effect of independent variables on dependent variables. In addition, non-normally distributed variables were standardized and included in the regression analysis by calculating the z-score.

Results

Table 1. Comparison of The Scores Obtained From The Scales with The Independent Sample T-Test in Terms of Gender Variable

Variable	Scale	Categories	N	Mean±SD	t	p
	Social Anxiety	Woman	320	43.30±27.51	4.382	0.001
		Man	131	31.09±25.16		
	Dissociation	Woman	320	23.79±17.82	-0.974	0.331
		Man	131	25.83±21.06		
	Emotion Regulation Processes	Woman	320	150.82±21.89	0.411	0.681
		Man	131	149.83±25.82		
	Childhood Traumas	Woman	320	35.79±9.74	-0.414	0.679
		Man	131	36.20±8.98		

Table 1 shows the results of the Independent Sample t-Test performed to determine whether gender creates a significant difference in the scales used in the research.

According to the results of the analysis, the gender variable created a significant difference in terms of social anxiety (p=0.001<0.05). Accordingly, it was determined that the

social anxiety level of women (average=43.30) was higher than that of men (average=31.09). However, it was determined that there was no significant difference in dissociation, emotion regulation and childhood trauma

scores of men and women ($p>0.05$). This result brought with it the result that the gender variable was not included in the hierarchical regression analysis.

Table 2. Examination of Relationships Between Childhood Traumas, Social Anxiety, Dissociation, Emotion Regulation Processes with Pearson Correlation Analysis

Variables		Childhood Traumas	Social Anxiety	Dissociation	Emotion Regulation Processes
Childhood Traumas	r	1	0.150*	0.100*	-0.294
Social Anxiety	r	0.150*	1	0.208*	-0.146*
Dissociation	r	0.100*	0.208*	1	0.013
Emotion Regulation Processes	r	-0.294	-0.146*	0.013	1

* $p<0.05$

Table 2 shows the results of the Pearson Correlation analysis applied to determine whether there is a significant relationship between the scales used in the research, and if there is a relationship, its direction and severity. Accordingly, there was a significant, positive and very weak relationship between childhood traumas and social anxiety ($p=0.001<0.05$, $r=0.150$), a positive, significant and rather weak relationship between childhood traumas and dissociation ($p=0.034$, $r=0.100$), a negative, weak and

significant relationship was found between childhood traumas and emotion regulation processes ($p=0.001$, $r=-0.294$). In addition, a positive, weak and significant relationship was found between social anxiety and dissociation ($p=0.001<0.05$, $r=0.208$), and a negative, significant and very weak relationship was found between social anxiety and emotion regulation processes ($p=0.002$, $r=-0.146$). No significant relationship was found between dissociation and emotion regulation ($p=0.777>0.05$).

Table 3. Investigation of the Effects of Antecedent-Focused Emotion Regulation Skills and Response-Focused Emotion Regulation Skills Sub-Dimensions on Social Anxiety by Multiple Regression Analysis

The dependent variable	Independent variables	β	T	P
Liebowitz Social Anxiety Scale	Constant Term	66.626	7.896	0.001
	Antecedent-Focused Emotion Regulation Skills	-0.361	-2.795	0.005
	Response-Focused Emotion Regulation Skills	0.071	0.436	0.663

$R^2=0.027$, $F=6.208$, $p=0.002$

LSAS= $66.626-0.361*(\text{Antecedent-Focused Emotion Regulation Skills})$

The regression equation, which was determined as LSAS for the dependent variable and as antecedent-focused emotion regulation skills and reaction-oriented emotion regulation skills for the independent variables, is shown in Table 3. In Table 1, besides the significance of the regression equation, which of the independent variables is statistically significant and the coefficients of these

variables are given. The coefficient of determination (R^2) was calculated as 0.027 and F was found to be significant ($p=0.002<0.05$). Accordingly, it was determined that antecedent-focused emotion regulation skills were effective on social anxiety at a significance level of 0.05. In the model; It is seen that a one-unit increase in antecedent-focused emotion regulation skills causes a 0.361-unit decrease in social anxiety.

Table 4. Examining the Effects of Childhood Traumas Scale Sub-Dimensions Emotional Neglect, Physical Neglect, Emotional Abuse, Physical Abuse, Sexual Abuse on Social Anxiety by Multiple Regression Analysis

The dependent variable	Independent variables	β	t	P
Liebowitz Social Anxiety Scale	Constant Term	39.761	31.056	0.001
	Emotional abuse Z score	2.252	1.281	0.201
	Physical abuse Z score	-0.453	-0.296	0.767
	Physical neglect Z score	1.458	1.031	0.303
	Emotional neglect Z score	0.930	0.546	0.585
	Sexual abuse Z score	2.360	1.821	0.069

$R^2=0.026$, $F=2.377$, $p=0.038$

The regression equation of the dependent variable as LSAS and the independent variables as emotional abuse, physical abuse, physical neglect, emotional neglect, and sexual abuse, which are the sub-dimensions of CTS are shown in Table 4. The coefficient of determination (R²)

was calculated as 0.026 and F was found to be significant (p=0.038<0.05). Accordingly, it is seen that none of the independent variables have an effect on social anxiety at the 0.05 significance level.

Table 5. Examining the Effects of Dissociative Experiences Scale Sub-Dimensions Amnesia, Depersonalization/Derealization, Absorption on Social Anxiety by Multiple Regression Analysis

The dependent variable	Independent variables	β	t	p
	Constant Term	29.747	2.370	0.001
Liebowitz Social Anxiety Scale	Amnesia	-0.118	0.106	0.267
	Depersonalization/Derealization	0.099	0.103	0.337
	Absorption	0.304	0.089	0.001

R²=0.059, F=9.409, p=0.001 LSAS =29.747+0.304*Absorption

The regression equation, which was determined as LSAS for the dependent variable and the DES for the independent variable, is shown in Table 5. The coefficient of determination (R²) was calculated as 0.059 and F was found to be significant (p=0.001<0.05). Accordingly, it

can be said that dissociative experience is effective on social anxiety at a significance level of 0.05. In the model; it is seen that one unit increase in dissociative experience causes an increase of 0.304 units on social anxiety.

Table 6. Examination of The Hierarchical Regression Model in Which The Childhood Traumas, Dissociative Experiences and Emotion Regulation Processes Were Added as Independent Variables, Respectively, to The Model in Which The Liebowitz Social Anxiety Variable Was Taken as The Dependent Variable.

Model	Variables	β	Adjusted R ²	t	P	F	Tolerance	VIF
1	Constant Term	24.273	0.020	4.866	0.001	10.315		
	Childhood Traumas	0.431		3.212	0.001		1.000	1.000
2	Constant Term	19.366		3.848	0.001			
	Childhood Traumas	0.375	0.056	2.833	0.005	14.312	0.990	1.010
	Dissociation	0.284		4.233	0.001		0.990	1.010
3	Constant Term	44.559		4.011	0.001			
	Childhood Traumas	0.271	0.067	1.967	0.050	11.808	0.903	1.108
	Dissociation	0.291		4.369	0.001		0.988	1.012
	Emotion Regulation Processes	-0.144		-2.540	0.011		0.912	1.097

Table 6 shows the results of the Mann-Whitney U test for comparing the Parental Burnout Scale scores according to the marital statuses of the parents. When Table 6 is examined, it was seen that there were no statistically significant differences between the scores of the parents in the sub-dimensions of Emotional Exhaustion, Feelings of Being Fed Up, Contrast with Previous Parental Self, and

Emotional Distancing in the Parental Burnout Scale based on their marital statuses (p>0.05) In Table 6, the steps of the hierarchical regression model, the coefficients for the independent variables, the significance values, and the tolerance and VIF values for the control of multicollinearity are given. CTS, DES, and ERPS variables were taken as the independent variables, and the

LSAS score was taken as the dependent variable. The assumptions of the regression analysis were checked, the tolerance values were found to be 0.20 and above, the VIF values were found to be less than 10, so there was no multicollinearity problem, the independent variables were suitable for multivariate normality, the Durbin Watson value was in the range of $1.5 < 1.926 < 2.5$, that is, there was no autocorrelation. In model 1, which is the first step of hierarchical regression, the constant term contributed to the model, and the effect of the CTS variable on social anxiety was found to be positive and significant. In other words, one unit increase in CTS will cause an increase of 0.431 units on social anxiety. ($\beta=0.431$, $R^2=0.020$). In Model 2, the contribution of the constant term to the model was found to be significant, and when the CTS and DES scores were added to the model together, their contribution to the model was found to be significant. $\beta = 0.284$, and the independent variables' explanation rate of the dependent variable was $R^2=0.056$, so the independent variables in model 2 had a higher explanatory power of social anxiety than model 1. When Model 3 was examined, it was observed that the contribution of the constant term to the model was significant, when the independent variable of DES was added in addition to the CTS and DES scores, the contribution of all variables to the model was significant. positive ($\beta = 0.291$) and negative ($\beta = -0.144$) effect of ERPS on social anxiety. According to this, while other variables are constant, a one-unit increase in CTS causes an increase of 0.271 units on social anxiety, a one-unit increase in DES causes an increase of 0.291 units on social anxiety, while a one-unit increase in ERPS causes an increase in social anxiety. It causes a decrease of -0.144 units. In addition, it is seen that the independent variables explain the dependent variable $R^2=0.067$, so the independent variables in model 3 have a higher explanation power of the dependent variable than other models.

Discussion

The first result of the study is that gender creates a significant difference in terms of social anxiety symptoms. Accordingly, it was determined that the social anxiety levels of female participants were higher than male participants. Looking at the literature, many studies have shown that women are more likely to have social anxiety disorder than men (Asher, Aderka 2018; Pickering, Hadvin & Kovshoff, 2020; Zentner, et al., 2022). The present study is consistent with the literature in this sense.

The second result of the research comes from the correlation analysis. Accordingly, it was observed that there was a positive and significant relationship between childhood traumas and social anxiety symptoms. In other words, as childhood trauma experiences increase, social anxiety symptoms also increase. There are studies supporting this result in the literature (Fitzgerald & Gallus 2020; Fitzgerald, 2022). In the correlation analysis applied in the current study, it was determined that there was a positive and significant relationship between social anxiety symptoms and dissociation. This shows that as people's social anxiety symptoms increase, their dissociative experiences also increase. There are studies in the literature that support this finding. In their study, Myers and Llera (2020) reported that the frequency and duration of experiencing dissociation of people with high social anxiety is higher than those with low level of social anxiety. Another finding obtained in the correlation

analysis applied in the current study is that there is a negative and significant relationship between social anxiety symptoms and emotion regulation. In other words, as social anxiety symptoms increase, the use of emotion regulation processes decreases. The conclusion is supported by the literature. (Dryman & Heimberg, 2018), stated that social anxiety disorder is characterized by difficulties in recognizing, accepting, understanding and tolerating emotions. Farmer and Kashdan (2012) revealed in their study that social anxiety affects the frequency, type and results of emotion regulation strategy reported by individuals. People with high social anxiety use positive suppression more frequently, and using this strategy leads to less intense positive emotions and less positive social events as diversity (Farmer & Kashdan, 2012).

The third result of the study was obtained by linear and multiple regression analysis to see the effects of childhood traumas, emotion regulation processes and dissociation on social anxiety symptoms. Accordingly, antecedent-focused emotion regulation processes cause a decrease in social anxiety symptoms, and an increase in absorption causes an increase in social anxiety symptoms. Research findings are supported by the literature.

In the study, it was concluded that an increase in antecedent-oriented emotion regulation skills, which is one of the emotion regulation processes, provides a decrease in social anxiety symptoms. The finding is consistent with the literature. Dryman and Heimberg (2018) in their literature review study suggested that the emotion regulation strategies that people with social anxiety disorder choose to use, their self-confidence when using these emotion regulation strategies, and their effects are significantly related to the development and continuation of this disorder. Rusch, Westermann, and Lincoln (2012) revealed in their study that refusal to accept negative emotions, difficulties in impulse control, and the absence of functional emotion regulation strategies are associated with anxiety in interactive social situations. In the study of Farmer and Kashdan (2012), individuals with low social anxiety levels reported fewer negative social events in the days after using cognitive reappraisal, one of the antecedent-focused emotion regulation processes, to reduce their distress. Blablock, Kashdan, and Farmer (2016) reported that participants with social anxiety disorder reported more continuous suppression and less cognitive reappraisal and used the same emotion regulation model in their daily lives compared to the healthy control group. When they used cognitive reappraisal, which is one of the antecedent emotion regulation strategies, they provided more benefits (especially increased positive emotions) compared to the control group. Dryman and Heimberg (2018) commented in their study that it is important for people with social anxiety disorder to use cognitive reassessment, which is one of the antecedent emotion regulation strategies, or to believe that they will use it effectively.

In the present study, it was found that dissociative experiences were effective on social anxiety. The increase in dissociative experiences causes an increase in social anxiety symptoms. The finding is supported by the literature. Evren et al. (2009), in their study with people with alcohol dependence, it was found that the group with a high level of dissociation also had a high level of social anxiety. Hoyer et al. (2013) showed that 92% of the participants with social anxiety experienced alienation

from themselves and the environment. In another study (Michal et al. 2005), a moderate to large effect size was found between self-alienation and social fears exceeding the severity of general psychological symptoms for people receiving psychotherapy with different psychiatric diagnoses and for the other group. On the other hand, Myers and Llera (2020) found that people with high social anxiety symptoms experienced more frequent and longer duration of dissociation than people with low social anxiety symptoms. It has also been found that social anxiety predicts dissociation.

Another result of the study is that childhood traumas did not make a statistically significant difference in multiple regression analyzes on social anxiety, but when the hierarchical regression model was included in the analysis, it was determined that childhood traumas predicted social anxiety. There are conflicting results on this issue in the literature. As a result of multiple regression analysis, there are studies showing that childhood traumas do not predict social anxiety (Bruce, Heimberg, Blanco, Schneier & Liebowitz, 2012; Brühl, Kley, Grocholewski, Neuner & Heinrichs, 2019; Chen & Qin, 2019). On the other hand, there are also studies reporting that childhood traumas have an effect on the level of social anxiety, as is the result of hierarchical analysis (Ji & Lü, 2021; Shahar, Doron, & Szepeswol, 2014). In addition, it has been found that childhood traumas, especially emotional neglect and abuse, are associated with a high rate of symptom severity and a low rate of functionality, flexibility and quality of life in people with social anxiety disorder (Simon et al., 2009).

In the hierarchical regression analysis, childhood traumas, dissociation and emotion regulation skills were included in the model, respectively. In this case, it was determined that the rate of explaining the social anxiety levels of childhood traumas and emotion regulation skills was 0.056, and the rate of explaining the social anxiety levels of childhood traumas and dissociation was 0.030. This situation was interpreted as the explanation rate of childhood traumas and dissociation as a model for social anxiety is higher than childhood traumas and emotion regulation skills as a model. In addition, it is interpreted that social anxiety may start to occur in early periods with childhood trauma and dissociation as a coping method. When the literature is examined, the knowledge that childhood traumas predict dissociation (Vonderlin et al., 2018) supports the result of the study.

In addition, when the hierarchical regression analyzes applied in the current study were examined, it was determined that the significance value of childhood traumas decreased when emotion regulation processes and dissociation were added to the model. This can be interpreted as the effect of childhood traumas on social anxiety levels decreases when emotion regulation processes and dissociation are included. In the literature, dissociation is considered as an emotion regulation strategy in some studies and as an experience resulting from emotion regulation difficulties in some studies (Bennett, Modrowski, Kerig & Chaplo, 2015; Frewen & Lanius 2006; Lanius et al., 2010). Considering this information, it is thought that the processes of emotion regulation may reduce the effects of childhood traumas in social anxiety levels.

Conclusion and Recommendations

In the study, it was determined that childhood traumas, emotion regulation processes and dissociation predict social anxiety. While childhood traumas and dissociation increase social anxiety, an increase in antecedent-focused emotion regulation processes reduces social anxiety symptoms. The results show that working with childhood traumas, emotion regulation processes and dissociation can contribute clinically when working with people with social anxiety symptoms in the clinical population. In addition, psychoeducational studies and health policies including prevention of childhood traumas and increasing emotion regulation skills in the non-clinical population may contribute to protective community mental health.

Limitations

The study has various limitations in different areas. First of all, from the point of view of the sample, the data of the study were collected by snowball method and it is not a clinical sample. For this reason, it is not possible to generalize in terms of social anxiety.

In the study, the majority of the sample consists of female participants (71%). In addition, the majority of the sample consists of individuals who are single (61.9%), graduate (48.8%), who evaluate their financial situation as moderate (56.3%) and currently do not receive psychological / psychiatric support (90.7%). It is seen that the demographic characteristics of the participants are concentrated in some categories. This is one of the factors that make it difficult to generalize.

There are also some limitations regarding the measurement tools used in the study. All measurement tools used in the study are self-report scales. It was assumed that the participants answered honestly in the study. In addition, the CTS collects retrospective information. The scale directs items about the experiences of individuals in the first 18 years of their lives. While answering the questions on this scale, people may have a recall bias. Since the DES used in the study is aimed at obtaining information about the dissociative experiences of the individuals, situations such as difficulty in remembering these experiences or not being able to remember may occur.

In addition to these, the study is a study conducted using the cross-sectional research method. In the study, a cause-effect relationship could not be established, developmental evaluations could not be made, and retrospective information was collected through scales.

Data collection was carried out online due to the pandemic. For this reason, the participants did not have a situation to ask questions about the study at that time. In addition, the participants did not have the opportunity to control situations such as how long it took to complete the scales and whether they were alone at that time

Declarations

Ethics Approval and Consent to Participate

This study was approved by Marmara University Ethics Committees with 2021-4/23 protocol numbered and dated 07.09.2021. Before administering the online questionnaire, participants provided informed consent online.

Consent for Publication

Not applicable

Availability of Data and Materials

Not applicable.

Competing Interests

The author declares that no competing interests in this manuscript.

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Authors' Contributions

EY Corresponding Author. Contributed to the creation of the research design, reviewing the literature, analysis of the data, article writing and revision of the article content. İA contributed to collecting of the data, analysis of the data, reviewing the literature, and revision of the article content. All authors have read and approved the final the article.

References

- Aka, B.T. (2011). Perceived parenting styles, emotion recognition, and emotion regulation in relation to psychological well-being: Symptoms of depression, obsessive-compulsive disorder, and social anxiety. ODTÜ, Doktora Tezi, Ankara
- Asher, M., & Aderka, I. M. (2018). Gender differences in social anxiety disorder. *Journal of Clinical Psychology*, 74(10), 1730-1741.
- Bandelow B., Charimo Torrente. A., Wedekind, D., Broocks, A., Hajak, G. & Rüther, E. (2004). Early traumatic life events, parental rearing styles, family history of mental disorders, and birth risk factors in patients with social anxiety disorder. *European archives of psychiatry and clinical neuroscience*, 254, 397-405.
- Belli, H., Akbudak, M., Ural, C., Solmaz, M., Dogan, Z. & Konkan, R. (2017). Is there a complex relation between social anxiety disorder, childhood traumatic experiences and dissociation? *Nordic journal of psychiatry*, 71(1), 55-60.
- Bennett, D.C., Modrowski, C.A., Kerig, P.K. & Chaplo, S.D. (2015). Investigating the dissociative subtype of posttraumatic stress disorder in a sample of traumatized detained youth. *Psychological Trauma: Theory, Research, Practice, and Policy*.7(5), 465.
- Blalock, D.V., Kashdan, T.B. & Farmer, A.S. (2016). Trait and daily emotion regulation in social anxiety disorder. *Cognitive Therapy and Research*. 240, 416-25.
- Bruce, L.C. & Heimberg, R.G. Blanco, C., Schneier, F.R. & Liebowitz, M.R. (2012). Childhood maltreatment and social anxiety disorder: Implications for symptom severity and response to pharmacotherapy. *Depression and Anxiety*. 29(2), 132-9.
- Brühl, A., Kley, H., Grochowski, A., Neuner, F. & Heinrichs, N. (2019). Child maltreatment, peer victimization, and social anxiety in adulthood: a cross-sectional study in a treatment-seeking sample. *BMC Psychiatry*. 19(1), 1-1.
- Chen, C. & Qin, J. (2020). Emotional abuse and adolescents' social anxiety: The roles of self-esteem and loneliness. *Journal of Family Violence*. 35, 497-507.
- Colic, J., Bassett, T.R., Latysheva, A., Imboden, C., Bader, K. & Hatzinger, M. (2020). Depersonalization and derealization in embarrassing social interactions: an experience sampling study in social phobia, major depression and controls. *Journal of Anxiety Disorders*. 1(70),102189.
- Dryman, M.T. & Heimberg, R.G. (2018). Emotion regulation in social anxiety and depression: A systematic review of expressive suppression and cognitive reappraisal. *Clinical Psychology Review*. 1(65), 17-42.
- Evren, C., Şar, V., Dalbudak, E., Oncu, F. & Çakmak, D. (2009). Social anxiety and dissociation among male patients with alcohol dependency. *Psychiatry Research*. 165(3), 273-80.
- Faul, F., Erdfelder, E., Lang, A.G. & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175-191.
- Farmer, A.S. & Kashdan, T.B. (2012). Social anxiety and emotion regulation in daily life: Spillover effects on positive and negative social events. *Cognitive Behaviour Therapy*. 41(2), 152-62.
- Fitzgerald, M. & Gallus, K. (2020). Emotional support as a mechanism linking childhood maltreatment and adult's depressive and social anxiety symptoms. *Child Abuse & Neglect*. 108, 104645.
- Fitzgerald, M. (2022). A Drive for Redemption: Relationship Quality as a Mediator Linking Childhood Maltreatment to Symptoms of Social Anxiety and Depression. *Journal of Adult Development*. 29(1), 29-39.
- Frewen, P.A. & Lanius, R.A. (2006). Toward a psychobiology of posttraumatic self-dysregulation: Reexperiencing, hyperarousal, dissociation, and emotional numbing. *Annals of the New York Academy of Sciences*. 1071(1), 110-24.
- Gross, J.J. & John, O.P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and wellbeing. *Journal of Personality and Social Psychology*, 85, 348-362.
- Hofmann, S.G. (2007). Cognitive factors that maintain social anxiety disorder: A comprehensive model and its treatment implications. *Cognitive Behaviour Therapy*. 36(4), 193-209.
- Hoyer, J., Braeuer, D., Crawcour, S., Klumbies, E. & Kirschbaum, C. (2013). Depersonalization/derealization during acute social stress in social phobia. *Journal of Anxiety Disorders*. 27(2), 178-87.
- Jazaieri, H., Morrison, A.S., Goldin, P.R. & Gross, J.J. (2015). The role of emotion and emotion regulation in social anxiety disorder. *Current Psychiatry Reports*. 17, 1-9.
- Ji, H. & Lü, W. (2021). Childhood abuse and social anxiety symptoms among young adults: Moderating role of respiratory sinus arrhythmia suppression to social stress. *Child Abuse & Neglect*. 1(117), 105118.
- Karasar, N. (2000). Bilimsel Araştırma Yöntemi. Ankara: Nobel Yayın Dağıtım.
- Keil, V., Asbrand, J., Tuschen-Caffier, B. & Schmitz, J. (2017). Children with social anxiety and other anxiety disorders show similar deficits in habitual emotional regulation: evidence for a transdiagnostic phenomenon. *European Child & Adolescent Psychiatry*. 26, 749-57.
- Kuo, J.R., Goldin, P.R., Werner, K., Heimberg, R.G. & Gross, J.J. (2011). Childhood trauma and current psychological functioning in adults with social anxiety disorder. *Journal of Anxiety Disorders*. 25(4), 467-73.
- Lanius, R.A., Vermetten, E., Loewenstein, R.J., Brand, B., Schmahl, C., Bremner, J.D. & Spiegel, D. (2010). Emotion modulation in PTSD: Clinical and neurobiological evidence for a dissociative subtype. *American Journal of Psychiatry*. 167(6), 640-7.
- Magee, W.J., Eaton, W.W., Wittchen, H.U., McGonagle, K.A. & Kessler, R.C. (1996). Agoraphobia, simple phobia, and social

- phobia in the National Comorbidity Survey. *Archives of General Psychiatry*. 53(2), 159-68.
- Michail, M. & Birchwood, M. (2014). Social anxiety in first-episode psychosis: the role of childhood trauma and adult attachment. *Journal of affective disorders*. 163, 102-109.
- Michal, M., Kaufhold, J., Grabhorn, R., Krakow, K., Overbeck, G. & Heidenreich, T. (2005). Depersonalization and social anxiety. *The Journal of Nervous and Mental Disease*. 193(9), 629-32.
- Myers, N.S. & Llera, S.J. (2020). The role of childhood maltreatment in the relationship between social anxiety and dissociation: a novel link. *Journal of Trauma & Dissociation*. 21(3), 319-36.
- Nanda, M.M., Reichert, E. & Jones, U., Flannery-Schroeder, E. (2015). Childhood maltreatment and symptoms of social anxiety: exploring the role of emotional abuse, neglect, and cumulative trauma. *Journal of Child & Adolescent Trauma*. 9, 70.
- Pickering, L., Hadwin, J. A. & Kovshoff, H. (2020). The role of peers in the development of social anxiety in adolescent girls: A systematic review. *Adolescent research review*. 5(4), 341-362.
- Rusch, S., Westermann, S. & Lincoln, T.M. (2012). Specificity of emotion regulation deficits in social anxiety: an internet study. *Psychol Psychother*. 85(3), 268-277.
- Ruscio, A.M., Brown, T.A., Chiu, W.T., Sareen, J., Stein, M.B. & Kessler, R.C. (2008). Social fears and social phobia in the USA: results from the National Comorbidity Survey Replication. *Psychological Medicine*. 38(1), 15-28.
- Şar, V., Öztürk, E. & İkikardeş, E. (2012). Çocukluk Çağı Ruhsal Travma Ölçeğinin Türkçe Uyarlamasının Geçerlilik ve Güvenilirliği/Validity and Reliability of the Turkish Version of Childhood Trauma Questionnaire. *Türkiye Klinikleri. Tıp Bilimleri Dergisi*. 32(4), 1054.
- Schneier, F. & Goldmark, J. (2015). Social anxiety disorder. *Anxiety Disorders and Gender*. 49-67.
- Schutte, N.S., Manes, R.R. & Malouff, J.M. (2009). Antecedent-focused emotion regulation, response modulation and well-being. *Current Psychology*. 28, 21-31.
- Schweden, T.L., Pittig, A., Brauer, D., Klumbies, E., Kirschbaum, C. & Hoyer, J. (2016). Reduction of depersonalization during social stress through cognitive therapy for social anxiety disorder: A randomized controlled trial. *Journal of Anxiety Disorders*. 1 (43), 99-105.
- Shahar, B., Doron, G. & Szepeswol, O. (2015). Childhood maltreatment, shame-proneness and self-criticism in social anxiety disorder: A sequential mediational model. *Clinical Psychology & Psychotherapy*. 22(6), 570-9.
- Simon, N.M., Herlands, N.N., Marks, E.H., Mancini, C., Letamendi, A. & Li, Z. (2009). Childhood maltreatment linked to greater symptom severity and poorer quality of life and function in social anxiety disorder. *Depression and Anxiety*. 26(11), 1027-32.
- Soykan, C., Özgüven, H.D. & Gençöz, T. (2003). Liebowitz Social Anxiety Scale: the Turkish version. *Psychol Rep*. 93, 1059-1069.
- Stein, D.J., Lim, C.C., Roest, A.M., De Jonge, P., Aguilar-Gaxiola, S. & Al-Hamzawi, A. (2017). The cross-national epidemiology of social anxiety disorder: Data from the World Mental Health Survey Initiative. *BMC Medicine*. 15(1), 1-21.
- Stein, M.B. & Stein, D.J. (2008). Social anxiety disorder. *The Lancet*. 371(9618), 1115-25.
- Tabachnick, B.G. & Fidell, L.S. (2013). *Using Multivariate Statistics* (6th ed.). Boston, MA: Pearson.
- Werner, K., Goldin, P.R., Ball, T.M., Heimberg, R.G. & Gross J.J. (2011). Assessing emotion regulation in social anxiety disorder: the emotion regulation interview. *J Psychopathol Behav Assess*. 33(3), 346-54.
- Vonderlin, R., Kleindienst, N., Alpers, G.W., Bohus, M., Lyssenko, L. & Schmahl, C. (2018). Dissociation in victims of childhood abuse or neglect: A meta-analytic review. *Psychological Medicine*. 48(15), 2467-76.
- Yargıç, L.İ., Tutkun, H. & Şar, V. (1995). Reliability and validity of the Turkish version of dissociative experiences scale. *Dissociation*. 8, 10-13.
- Zentner, K. E., Lee, H., Dueck, B.S., & Masuda, T. (2022). Cultural and gender differences in social anxiety: The mediating role of self-construals and gender role identification. *Current Psychology*, 1-12.