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Examination of the relationship between attachment styles, separation anxiety and rejection sensitivity in social anxiety disorder

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Abstract

Social anxiety disorder is a significant mental health illness that causes marked functional impairment. This study hypothesizes that rejection sensitivity, insecure attachment, and separation anxiety will be higher in people with social anxiety disorder and that these factors will predict social anxiety disorder. The study included 57 patients diagnosed with social anxiety disorder and 59 healthy controls. All participants completed the Relationship Scales Questionnaire, Rejection Sensitivity Scale, and Adult Separation Anxiety Questionnaire, while the Liebowitz Social Anxiety Scale was additionally administered to the patient group. The mean secure attachment subscale score was lower in the patient group ($p<0.001$). The patient group had higher mean scores on the preoccupied, disengaged, and fearful attachment subscales ($p<0.001$). Total scores on the Rejection Sensitivity Scale and the Adult Separation Anxiety Questionnaire were higher in the patient group ($p=0.036$ and $p<0.001$, respectively). Moreover each one-unit increase in rejection sensitivity was associated with a 0.360-unit increase in the SF-anxiety score, while each one-unit increase in preoccupied attachment score led to a 0.755-unit increase in the SF-anxiety score. Each one-unit increase in preoccupied attachment was associated with a 1.446-unit increase in the SF-avoidant score, while each one-unit increase in fearful attachment resulted in a 0.898-unit increase in the SF-avoidant score. This study found that individuals with social anxiety disorder exhibit higher levels of rejection sensitivity, adult separation anxiety, and insecure attachment. Rejection sensitivity, adult separation anxiety, and insecure attachment styles were found to increase the severity of social anxiety disorder symptoms.

Keywords: Social anxiety disorder, rejection sensitivity, attachment, adult separation anxiety

Introduction

Social anxiety disorder (SAD) is a psychiatric disorder characterized by an individual's fear of negative evaluation in situations requiring social interaction. Patients with SAD particularly avoid social interactions and often feel intensive anxiety in conditions such as public speaking, attending social events, or engaging in performance-related tasks. SAD usually begins in adolescence and can lead to significant impairments in functioning. Although the precise etiology of SAD remains unclear, it is widely accepted that its development results from a complex interplay of genetic, environmental, and individual factors [1]. Research suggests that SAD is associated not only with learned behaviors but also with attachment styles, cognitive tendencies, and neurobiological processes. In addition, childhood traumas, childhood rejection, overprotective or performance-oriented parenting, and separation experiences may also be decisive in the etiology of SAD. Attachment theory suggests that the relationships an individual establishes with their early caregivers play a determining role in their emotional, social and cognitive functioning and relationships in later life. This theory argues that different attachment styles, secure and insecure, shape an individual's ability to cope with stress. It has been determined that individuals with insecure attachment styles perceive more anxiety and threat in social relationships, and insecure attachment is a risk factor for various mental health disorders in adulthood [2]. In particular, studies show that anxious attachment style is significantly associated with SAD. Additionally, insecure

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attachment may foster core features of SAD, such as avoidance and hypersensitivity in interpersonal relationships. Adult separation anxiety refers to the intense anxiety and stress a person experiences when separated from close relationships or familiar environments. Although traditionally associated with childhood, separation anxiety is also recognized in adulthood according to the DSM-5. Adult separation anxiety is typically marked by heightened anxiety, restlessness, and physical symptoms when separated from a loved one [3-5]. Rejection sensitivity refers to an individual's heightened sensitivity to the possibility of being rejected in social relationships, which often leads to social isolation or intense emotional reactions. Early attachment relationships and childhood experiences are believed to have a significant impact on rejection sensitivity. Individuals with high rejection sensitivity may avoid social relationship or develop unhealthy relational dynamics due to fear of rejection [6,7]. It is increasingly thought that early relational experiences and individual sensitivities are effective in the formation and maintenance of SAD. In this context, psychological structures that shape the way an individual perceives his/her social environment, such as attachment styles, adult separation anxiety, and rejection sensitivity, are considered important variables in understanding mecanisms underlying SAD. The main purpose of the present study was to compare the levels of these three psychological factors in individuals with SAD with healthy individuals and to examine the extent to which these variables predict social anxiety symptoms. In this context, two main hypotheses were tested in the study: 1. Insecure attachment styles, adult separation anxiety, and rejection sensitivity are significantly higher in the SAD group; 2. Insecure attachment, rejection sensitivity, and adult separation anxiety are predictive of the severity of SAD. It is expected that this study will contribute to preventive and therapeutic interventions by better understanding the developmental and interpersonal dynamics of social anxiety. Since SAD has many etiological factors, it is important to consider patients from multiple perspectives. Every research to be conducted in this area is valuable. There are limited studies in the literature investigating the relationship between rejection sensitivity, attachment, and adult separation anxiety in the SAD group and the effects of these variables on SAD. This study is considered important because it may serve as an example for future research, shed light on SAD, for which there is insufficient data on its etiology, and offer different psychotherapeutic perspectives for SAD, for which psychotherapeutic interventions are important in its treatment [8].

Material and Methods

This study was conducted between November 1, 2023, and November 1, 2024, at the Psychiatry clinic of Recep Tayyip Erdoğan University Training and Research Hospital. It involved patients diagnosed with SAD according to the DSM-5 criteria and a control group consisting of healthy volunteers. Participants who agreed to take part in the study were first provided with detailed oral information about the research, followed by obtaining written and verbal informed consents. The control group was selected to match the patient group in terms of sociodemographic characteristics. The participants were administered the Sociodemographic Data Form, Relationship Scales Questionnaire, Rejection Sensitivity Scale, and Adult Separation Anxiety Inventory. The patient group also completed the Liebowitz Social Anxiety Scale. The diagnosis of SAD was confirmed through a clinical evaluation by a psychiatrist and the Structured Clinical Interview (SCID-5) in accordance with DSM-5 criteria. Similarly, the control group was evaluated by a psychiatrist to ensure they did not have any psychiatric disorders. Individuals with a history of psychiatric medication use in the last two years, a diagnosis of an additional psychiatric disorder, chronic medical conditions, substance use disorders, low academic capacity to complete the scales, or personality disorders were excluded. G Power 3.1 program was used to calculate the sample size. determining that at least 51 participants per group would be sufficient with 80% power, 0.05 alpha level, and an effect size of 0.56 [9]. Ethical approval and ethics committee permission for this study were obtained from Recep Tayyip Erdoğan University Non-Interventional Clinical Research Ethics Committee (decision number: 2023/200, date: 12.09.2023).

Scales Used in the Study

Sociodemographic Data Form: This form was designed by the researchers to collect basic sociodemographic data from participants, such as age, gender, and education level.

Relationship Scales Questionnaire: This self-report scale assesses childhood attachment styles. It evaluates the levels of preoccupied attachment, fearful attachment, dismissive attachment, and secure attachment. Validity and reliability were evaluated by Sümer et al. and found to be valid in the Turkish sample. Cronbach's alpha for the scale's applicability in the Turkish sample [10].

Adult Separation Anxiety Inventory: This self-report scale was developed to assess levels of separation anxiety in adulthood. Higher scores indicate more severe separation anxiety. Validity and reliability were evaluated by Diriöz et al. in the Turkish sample, and it yielded valid results for internal consistency in the Turkish sample [11].

Liebowitz Social Anxiety Scale: This scale is used to measure the severity of SAD in individuals and consists of two subscales: avoidance and anxiety. Separate scores are calculated for each subscale, and higher scores indicate increased avoidance or anxiety. A Turkish version of this scale has undergone validity and reliability testing [12].

Rejection Sensitivity Scale: This self-report scale measures an individual's sensitivity to potential rejection. Rejection sensitivity is assessed based on responses to hypothetical questions regarding rejection. Higher scores indicate greater sensitivity to rejection. The Turkish validity and reliability study was performed by Göncü et al., showing adequate and reliable results for the Turkish sample [13].

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Statistical Analysis

The analysis of the research was performed with SPSS 25.0 (IBM Corp, Armonk, N.Y., USA) software. Descriptive statistics, such as frequency, percentage, mean, and standard deviation, were used for data presentation. The Chi-square Test and Fisher Exact Test were used to analyze categorical data. The normality of the data distribution was assessed using the Kolmogorov-Smirnov Test, skewness and kurtosis values, and histogram visuals. For data meeting the normality assumption, an Independent Sample t-Test was used to compare the means between two independent groups, and Pearson's Correlation Test was applied for examining correlations. A linear regression analysis was conducted to evaluate the effects of rejection sensitivity, attachment, and adult separation anxiety levels on anxious and avoidant attachment styles. The stepwise method was used in the regression models. No issues of multicollinearity or autocorrelation were found in the models. Homogeneity of variance and multivariate normality assumptions were met, and the models were found to be statistically significant. A p-value of <0.05 was considered statistically significant.

Results

A total of 116 participants, consisting of 57 patients and 59 healthy controls, were included in the study. The average age of the patient group was 27±9.1 years, and there was no difference between the mean ages of the patient and control groups (p=0.09). In the patient group, 44 were female (77.2%) and 13 were male (22.8%), with no significant gender difference between the two groups (p=0.541). The educational levels of the patient group; 6 (10.5%) had primary education, 13 (22.8%) had completed high school, and 38 (66.7%) were university graduates. No significant difference in educational level was found between the patient and control groups (p=0.184). Regarding occupational status, 26 (45.6%) of the patients were students, 6 (10.5%) were workers, 4 (7.0%) were civil servants, and 21 (36.8%) were unemployed. No significant difference in occupational status was found between the groups (p=0.235). Among the patients, 17 (29.8%) were married, and 40 (70.2%) were single. No significant difference in marital status was found between the patient and control groups (p=0.139). The sociodemographic characteristics of both groups were presented in Table 1.

Table 1. Sociodemographic characteristics of patient and control groups

	Patient (n=57)	Control (n=59)	
	Mean (SD)	**Mean (SD)**	**p***
Age	27 (9.1)	30 (10.02)	0.090
	n (%)	**n (%)**	**p****
Gender			
Female	44 (77.2)	45 (76.3)	0.541
Male	13 (22.8)	14 (23.7)	
Education			
Primary school	6 (10.5)	7 (11.9)	
High school	13 (22.8)	6 (10.2)	0.184
University	38 (66.7)	46 (78.0)	
Occupation			
Student	26 (45.6)	28 (47.5)	
Worker	6 (10.5)	10 (16.9)	0.235
Officer	4 (7.0)	8 (13.6)	
Unemployed	21 (36.8)	13 (22.0)	
Marriage status			
Married	17 (29.8)	25 (42.4)	0.139
Single	40 (70.2)	33 (55.9)	

*independent sample t test, chi square**, p<0.05

The comparison of scale scores between the groups revealed significant differences in the subscales of the Relationship Scales Questionnaire. The secure attachment subscale was lower in the patient group (p<0.001).The mean scores for the preoccupied attachment, dismissive attachment, and fearful attachment subscales were significantly higher in the patient group (p<0.001). Similarly, the total scores of the Rejection Sensitivity Scale and the Adult Separation Anxiety Inventory was high in the patient group (p=0.036 and p<0.001, respectively) (Table 2).

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Table 2. Comparison of scale scores between patient and control groups

		Mean±SD	p*
Secure attachment	**Patient**	16.68±4.637	<0.001
	Control	20.03±4.586	
Preoccupied attachment	**Patient**	16.53±4.599	<0.001
	Control	13.05±5.319	
Dismissive attachment	**Patient**	21.49±5.197	<0.001
	Control	16.32±5.117	
Fearful attachment	**Patient**	17.77±5.666	<0.001
	Control	13.58±5.004	
Rejection sensitivity	**Patient**	57.33±21.101	0.036
	Control	49.86±16.618	
Adult separation anxiety	**Patient**	40.79±13.963	<0.001
	Control	28.37±14.926	

*independent sample t test, p<0.05

When examining the relationships between the scale scores in the patient group, there were negative correlations, between secure attachment and the anxiety and avoidance subscales of the Liebowitz Social Anxiety Scale (r=-0.316, p=0.017; r=-0.326, p=0.013). there were positive correlations, between preoccupied attachment (r=0.475, p<0.001; r=0.623, p<0.001), dismissive attachment (r=0.333, p=0.011; r=0.274, p=0.039), and fearful attachment (r=0.487, p<0.001; r=0.561, p<0.001) with anxiety and avoidance scores. Furthermore, there were positive correlations between rejection sensitivity (r=0.637, p<0.001; r=0.508, p<0.001) and adult separation anxiety scores (r=0.415, p=0.001; r=0.434, p=0.001) with anxiety and avoidance (Table 3).

Table 3. Correlation between attachment styles, rejection sensitivity, separation anxiety, and social anxiety in the patient group

		1	2	3	4	5	6	7
1.Secure attachment	**p***	-	-	-	-	-	-	-
	r	-	-	-	-	-	-	-
2.Occupied attachment	**p***	-0.269	-	-	-	-	-	-
	r	0.043	-	-	-	-	-	-
3.unregistered attachment	**p***	-0.311	0.302	-	-	-	-	-
	r	0.018	0.022	-	-	-	-	-
4.Fearfull attachment	**p***	-0.450	0.438	0.479	-	-	-	-
	r	<0.001	0.001	<0.001	-	-	-	-
5. SF-anxiety	**p***	-0.316	0.475	0.333	0.487	-	-	-
	r	0.017	<0.001	0.011	<0.001	-	-	-
6. SF-avoidance	**p***	-0.326	0.623	0.274	0.561	0.746	-	-
	r	0.013	<0.001	0.039	<0.001	<0.001	-	-
7. Rejection sensitivity	**p***	-0.285	0.437	0.412	0.499	0.637	0.508	-
	r	0.032	0.001	0.001	<0.001	<0.001	<0.001	-
8. Adult separation anxiety	**p***	-0.404	0.483	0.469	0.518	0.415	0.434	0.533
	r	0.002	<0.001	<0.001	<0.001	0.001	0.001	<0.001

*pearson correlation, p<0.05; SF: Liebowitz Social Phobia Scale

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A linear regression analysis was conducted to evaluate the effects of rejection sensitivity, attachment, and adult separation anxiety scores on the SF-anxiety score. According to Model 2, the combined effect of rejection sensitivity and preoccupied attachment was presented (Model 2: F=22.439; p<0.001). Based on the model, each one-unit increase in rejection sensitivity was associated with a 0.360-unit increase in the SF-anxiety score, while each one-unit increase in preoccupied attachment score led to a 0.755-unit increase in the SF-anxiety score (Table 4).

Table 4. Linear regression model of factors affecting SF-anxiety

		β¹ (95% CI)	SE	β²	t	p
Model 1	**(Constant)**	37.630 (29.025-46.235)	4.294		8.764	<0.001
	Rejection sensitivity	0.431 (0.290-0.572)	.070	0.637	6.133	<0.001
Model 2	**(Constant)**	29.273 (17.922-40.624)	5.662		5.170	<0.001
	Rejection sensitivity	0.360 (0.208-0.511)	0.076	0.531	4.753	<0.001
	Occupied attachment	0.755 (0.058-1.451)	0.347	0.243	2.173	0.034

Model 1 F=37.610; p<0.001; Adj. R^2=0.395; Model 2 F=22.439; p<0.001; Adj. R^2=0.434; 1: unstandardized coefficient; 2: standardized coefficient

A linear regression analysis was conducted to evaluate the effects of rejection sensitivity, attachment, and adult separation anxiety scores on the SF-avoidant score. In Model 2, the effects of preoccupied attachment and fearful attachment on SF-avoidant scores were presented (Model 2: F=25.970; p<0.001). According to the model, each one-unit increase in preoccupied attachment was associated with a 1.446-unit increase in the SF-avoidant score, while each one-unit increase in fearful attachment resulted in a 0.898-unit increase in the SF-avoidant score (Table 5).

Table 5. Linear regression model of factors affecting SF-avoidance

		β¹ (95% CI)	SE	β²	t	p
Model 1	**(Constant)**	26.750(15.503-37.997)	5.612		4.767	<0.001
	Occupied attachment	1.931(1.275-2.587)	0.327	0.623	5.899	<0.001
Model 2	**(Constant)**	18.811(7.383-30.239)	5.700		3.300	0.002
	Occupied attachment	1.446(0.774-2.118)	0.335	0.466	4.312	<0.001
	Fearfull attachment	0.898(0.352-1.444)	0.272	0.357	3.299	0.002

Model 1 F=34.803; p<0.001; Adj. R^2=0.376;Model 2 F=25.970; p<0.001; Adj. R^2=0.471; 1: unstandardized coefficient; 2: standardized coefficient

Discussion

In our study, levels of adult separation anxiety, attachment, and rejection sensitivity were investigated in patients with SAD. According to our findings, rejection sensitivity, separation anxiety, and negative attachment styles were found to be higher in the patient group compared to the control group. Furthermore, increases in rejection sensitivity and preoccupied attachment scores were associated with higher SF-anxiety scores, while increases in preoccupied and fearful attachment scores were associated with higher SF-avoidant scores. The findings indicate that although separation anxiety was higher in the patient group, it did not affect symptom severity; however, rejection sensitivity and negative attachment styles were both elevated in the patient group and contributed to symptom severity. There are existing studies in the literature that examine the relationship between attachment and SAD. Consistent with our findings, a systematic review reported a significant association between insecure attachment and SAD [14]. Attachment can be viewed as the ability to form a secure relationship with caregivers and to take the first steps toward the external world. Perceiving one's environment as safe plays a critical role in the development and maintenance of healthy interpersonal relationships. Secure attachment underlies the perception of the environment as safe. Individuals with SAD may experience difficulties in forming relationships due to a lack of secure attachment during childhood. Additionally, these individuals may perceive the external world as dangerous as a result. In the study by Bandelow et al. patients with SAD were found to have more negative childhood experiences [5]. Another study identified a relationship between avoidant and anxious attachment levels and the severity of SAD symptoms, suggesting that this might occur alongside SAD and depressive disorders [15]. Patients diagnosed with SAD often show avoidant attachment characteristics, and negative attachment patterns may exacerbate symptoms [16]. Indeed, our findings indicate that preoccupied attachment, in particular, has a

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negative impact on SAD symptoms. The relationship between attachment and psychiatric disorders has been widely studied in the literature. Negative attachment styles have been shown to be risk factors, rather than protective, for the development of psychiatric conditions in adulthood. According to our results, negative attachment styles were more prevalent in the patient group, and both preoccupied and fearful attachment styles were associated with increased severity of SAD symptoms. Although attachment is primarily considered within the context of childhood, it may also contribute to the development of psychiatric disorders in adulthood. It is well known that negative attachment patterns influence the development of many mental health disorders and play a significant role in anxiety disorders [17,18]. Our research also found that rejection sensitivity and adult separation anxiety score was higher in the patient group. Furthermore, our findings suggest that rejection sensitivity contributes to increased symptom severity in individuals with SAD. People with SAD often struggle with fears of rejection and non-acceptance in their relationships. Additionally, distancing themselves from their family whom they perceive as a source of security can be an anxiety-provoking situation. This may suggest that perceptions of the external world as dangerous, along with fear of not being accepted or being rejected, can negatively impact social relationships and lead to an avoidant attitude [5,19,20]. A study reported that rejection sensitivity triggers the emergence of anxiety and depressive symptoms, and that social anxiety mediates this relationship. [21]. Research by Schaan et al. showed that people with high rejection sensitivity tend to seek less physical contact, and as rejection levels increase, social integration were negatively affected [22]. In another study conducted with adolescents, individuals who perceived higher levels of rejection related to their appearance exhibited greater levels of social anxiety. [23]. People with high rejection sensitivity may exhibit personality issues, which may adversely affect their social relationships [24,25]. However, studies examining the relationship between rejection sensitivity and social anxiety remain relatively limited. Our study supports the connection between SAD and rejection sensitivity. In this study, adult separation anxiety levels were also evaluated. The analyses revealed that the patient group exhibited higher levels of adult separation anxiety compared to healthy controls; however, adult separation anxiety did not appear to have a significant effect on SAD symptom severity. It is worth noting that adult separation anxiety is a relatively newly defined diagnostic category for the adult population. Adult separation anxiety is associated with other anxiety disorders, but its relationship with other mental health conditions has not been fully clarified [26-29]. A study by Doğan et al. indicated that separation anxiety accompanying SAD leads to higher symptom severity and suicidal thoughts [30]. In patients with SAD, it is important to identify comorbidities during the treatment process. Research has shown that depressive disorders, other anxiety disorders, or substance use disorders often co-occur with SAD. The presence of comorbidities may increase symptom severity and reduce treatment seeking. Missed comorbid diagnoses may decrease recovery rates [31,32]. In addition to neurobiological and genetic factors, family relationships, personality development, and social support play role in the development of SAD. Therefore, a multidimensional approach should be adopted when assessing patients with SAD, and factors that could exacerbate disease symptoms should not be overlooked. SAD is a psychiatric condition that can emerge early in life, often resulting in significant functional impairment and high rates of comorbidity.attitudes, personality development, childhood trauma, and genetic factors all influence the development of this disorder [33-35]. This study associates SAD with attachment, rejection sensitivity, and adult separation anxiety. There is limited research on this topic, and our study aims to provide information to the literature by addressing both the etiology and treatment processes.

This study has some limitations. This is a cross-sectional design research. The participants provided self-reported data via questionnaires, which may be limited by biases or misunderstandings. Moreover, our study was contucted within same cultural context, the results were not generalized. There are numerous factors that may influence SAD symptoms, including socioeconomic status, family support, and the social environment. However, not all of these variables could be addressed within the scope of our study. This limitation may hinder a comprehensive evaluation of the impact of all contributing factors. Nevertheless, the examination of the key concepts of our research within a single, focused sample represents a major strength of the study. This work may provide a foundation for future research by highlighting the need for more comprehensive studies with reduced limitations in this field.

Conclusion

In this study, the relationships between rejection sensitivity, attachment styles, and adult separation anxiety in people with SAD were examined. The findings indicate that people with SAD tend to have lower scores of secure attachment and higher levels of preoccupied, dismissive, and fearful attachment styles. Furthermore, rejection sensitivity and adult separation anxiety were found higher in the patient group. These findings suggest that SAD is associated with attachment patterns, rejection sensitivity, and adult separation anxiety.

In the light of attachment theory, secure attachment styles may alleviate symptoms of SAD, while insecure attachment styles might exacerbate them. Likewise, emotional factors such as rejection sensitivity and adult separation anxiety may reinforce anxiety and avoidance behaviors in social relationships.

The findings of our research highlight the importance of assessing attachment styles and emotional processes in the treatment of SAD. Addressing attachment styles, rejection sensitivity, and adult separation anxiety in the treatment of individuals with SAD could lead to more effective psychosocial intervention strategies.

Conflict of Interests
The authors declare that there is no conflict of interest in the study.

Financial Disclosure
The authors declare that they have received no financial support for the study.

Ethical Approval
Ethical approval and ethics committee permission for this study were obtained from Recep Tayyip Erdoğan University Non-Interventional Clinical Research Ethics Committee (decision number: 2023/200, date: 12.09.2023).

References

1. Piccirillo ML, Lim MH, Fernandez KA, et al. Social anxiety disorder and social support behavior in friendships. Behav Ther. 2021;52:720-33.
2. Slade A, Holmes J. Attachment and psychotherapy. Curr Opin Psychol. 2019;25:152-6.
3. Baldwin DS, Gordon R, Abelli M, Pini S. The separation of adult separation anxiety disorder. CNS Spectr. 2016;21:289-94.
4. Liu J, Deng J, Zhang H, Tang X. The relationship between child maltreatment and social anxiety: a meta-analysis. J Affect Disord. 2023;329:157-67.
5. Conrad R, Forstner AJ, Chung ML, et al. Significance of anger suppression and preoccupied attachment in social anxiety disorder: a cross-sectional study. BMC Psychiatry. 2021;21:116.
6. Kraines MA, Kelberer LJA, Wells TT. Rejection sensitivity, interpersonal rejection, and attention for emotional facial expressions. J Behav Ther Exp Psychiatry. 2018;59:31-9.
7. Lord KA, Suvak MK, Liverant GI. Social anxiety, rejection sensitivity, and theory of mind decoding ability. J Clin Psychol. 2022;78:656-70.
8. Liu X, Yi P, Ma L, et al. Mindfulness-based interventions for social anxiety disorder: A systematic review and meta-analysis. Psychiatry Res. 2021;300:113935.
9. Werner KH, Goldin PR, Ball TM, et al. Assessing emotion regulation in social anxiety disorder: The emotion regulation interview. J Psychopathol Behav Assess. 2011;33:346-54.
10. Sümer N, Güngör D. Yetişkin bağlanma stilleri ölçeklerinin Türk örneklemi üzerinde psikometrik değerlendirmesi ve kültürlerarası bir karşılaştırma. Türk Psikoloji Dergisi. 1999;14:71-106.
11. Diriöz M, Alkın T, Yemez B, et al. The validity and reliability of Turkish version of separation anxiety symptom inventory and adult separation anxiety questionnaire. Turk Psikiyatri Derg. 2012;23:108-16.
12. Tükel R, Kiziltan E, Demir T, Demir D. Sosyal fobide alt tiplerin ve çekingen kişilik bozukluğunun psikopatoloji üzerine etkileri. Psikiyatri Psikoloji Psikofarmakoloji Dergisi. 1998;6:15-20.
13. Göncü Köse A, Özen Çığlak A, Ulaşan ET, Sümer N. Adapting rejection sensitivity questionnaire into Turkish. Nesne-Psikoloji Dergisi. 2017;5:383-403.
14. Manning RP, Dickson JM, Palmier-Claus J, et al. A systematic review of adult attachment and social anxiety. J Affect Disord. 2017;211:44-59.
15. Eng W, Heimberg RG, Hart TA, et al. Attachment in individuals with social anxiety disorder: the relationship among adult attachment styles, social anxiety, and depression. Emotion. 2001;1:365-80.
16. Wiltgen A, Arbona C, Frankel L, Frueh BC. Interpersonal trauma, attachment insecurity and anxiety in an inpatient psychiatric population. J Anxiety Disord. 2015;35:82-7.
17. Pini S, Abelli M, Troisi A, et al. The relationships among separation anxiety disorder, adult attachment style and agoraphobia in patients with panic disorder. J Anxiety Disord. 2014;28:741-6.
18. Marganska A, Gallagher M, Miranda R. Adult attachment, emotion dysregulation, and symptoms of depression and generalized anxiety disorder. Am J Orthopsychiatry. 2013;83:131-41.
19. Noda S, Masaki M, Kishimoto T, Kaiya H. Effect of rejection sensitivity on the development of anxious-depressive attack in Japanese outpatients: the mediating roles of rumination, social anxiety, and depressive symptoms. Front Psychol. 2022;13:1016879.
20. Stopa L. Why is the self important in understanding and treating social phobia?. Cogn Behav Ther. 2009;38:48-54.
21. Noda S, Masaki M, Kishimoto T, Kaiya H. Effect of rejection sensitivity on the development of anxious-depressive attack in Japanese outpatients: The mediating roles of rumination, social anxiety, and depressive symptoms. Front Psychol. 2022;13:1016879.
22. Schaan VK, Schulz A, Bernstein M, et al. Effects of rejection intensity and rejection sensitivity on social approach behavior in women. PloS One. 2020;15:e0227799.
23. Hawes T, Zimmer-Gembeck MJ, Campbell SM. Unique associations of social media use and online appearance preoccupation with depression, anxiety, and appearance rejection sensitivity. Body Image. 2020;33:66-76.
24. Sato M, Fonagy P, Luyten P. Rejection sensitivity and borderline personality disorder features: the mediating roles of attachment anxiety, need to belong, and self-criticism. J Pers Disord. 2020;34:273-88.
25. Meyer B, Ajchenbrenner M, Bowles DP. Sensory sensitivity, attachment experiences, and rejection responses among adults with borderline and avoidant features. J Pers Disord. 2005;19:641-58.
26. Bögels SM, Knappe S, Clark LA. Adult separation anxiety disorder in DSM-5. Clin Psychol Rev. 2013;33:663-74.
27. Mohatt J, Bennett SM, Walkup JT. Treatment of separation, generalized, and social anxiety disorders in youths. Am J Psychiatry. 2014;171:741-8.
28. Pini S, Abelli M, Shear KM, et al. Frequency and clinical correlates of adult separation anxiety in a sample of 508 outpatients with mood and anxiety disorders. Acta Psychiatr Scand. 2010;122:40-6.
29. Rochester J, Baldwin DS. Adult separation anxiety disorder: accepted but little understood. Hum Psychopharmacol. 2015;30:1-3.
30. Dogan B, Yoldas C, Kocabas O, et al. The characteristics of the comorbidity between social anxiety and separation anxiety disorders in adult patients. Nord J Psychiatry. 2019;73:380-6.
31. Chartier MJ, Walker JR, Stein MB. Considering comorbidity in social phobia. Soc Psychiatry Psychiatr Epidemiol. 2003;38:728-34.
32. Zlomuzica A, Kodzaga I, Piovesan K, Lipp A. Treating anxiety comorbidity: lessons from exposure generalization studies. Behav Brain Res. 2025;481:115409.
33. Philippe J, Provencher MD, Belleville G, et al. Influence of comorbidity in cognitive-behavioral treatment of anxiety and mood disorders. Sante Ment Que. 2022;47:309-31.
34. Spence SH, Rapee RM. The etiology of social anxiety disorder: An evidence-based model. Behav Res Ther. 2016;86:50-67.
35. Leichsenring F, Leweke F. Social anxiety disorder. N Engl J Med. 2017;376:2255-64.