Evaluation of the frequency and clinical features of comorbid adult separation anxiety disorder in patients with generalized anxiety disorder

Meltem Puşuroğlu[1], Çiçek Hocaoğlu[2]
[1]Assoc. Prof, [2]Prof., Department of Psychiatry, Recep Tayyip Erdogan University, Rize, Turkey https://orcid.org/0000-0002-1970-3262-https://orcid.org/0000-0001-6613-4317

SUMMARY

Objective: The aim of this study is to examine the frequency and clinical features of comorbid Adult Separation Anxiety Disorder (ASAD) in patients with Generalized Anxiety Disorder (GAD).

Method: A total of 80 patients with GAD according to DSM-5 were included in the study. All patients were administered the Sociodemographic Characteristics Form, the Separation Anxiety Symptom Inventory (SASI), the Beck Depression Inventory (BDI), the Beck Anxiety Inventory (BAI), and the Adult Separation Anxiety Symptom Questionnaire (ASA). Patients with GAD were grouped and compared as those with and without comorbid ASAD.

Results: Of the 80 patients diagnosed with GAD, 33 (41.3%) had comorbid ASAD. Age, depressive symptom level and ASAI score were found to be significantly related to anxiety level (β=0.328, p=0.001; β=0.273, p=0.007; β= 0.284, p=0.014, respectively). When the factors affecting the anxiety level are taken into consideration, a 1-unit increase in the age variable causes an increase of 0.013 units, a 1-unit increase in the depressive symptom level causes an increase of 0.013 units, and a 1-unit increase causes an increase of 0.013 units. It was found that ASA scores caused an increase of 0.008 units.

Discussion: Questioning the diagnosis of ASAD during the diagnosis and treatment process of patients with GAD may affect the course of the illness.

Key Words: Separation anxiety disorder, anxiety, generalized anxiety disorder, comorbidity, adults

INTRODUCTION

Adult separation anxiety disorder (ASAD) is a clinical diagnosis presenting symptoms of marked fear and anxiety, restlessness, and worry that something bad will happen when they are away from family members in adulthood (1). Separation anxiety is a state in which a person experiences extreme anxiety in the event of separation or in anticipation of separation from primary attachment figures. Those with separation anxiety make great efforts to avoid being away from their loved ones. The worry that something will happen to their relatives negatively affects the daily lives of individuals (2).

The relationship established with the caregiver in childhood is necessary for the child to continue his life. With the secure attachment established and the physical needs that decrease over time, the baby begins to differentiate from the caregiver and explore the environment in a safe environment. Although the separation from a caregiver in childhood is an anxious process, the child's discovery of the environment with a sense of curiosity gradually increases. This anxiety, related to separation from the caregiver, gradually decreases in advanced ages (3). During the transition to adulthood, the decrease in family dependency, autonomy, and responsibilities for adult life increases. With the increase in these responsibilities, separation, and individuation can be difficult from time to time. The restrictive parent approach and the lack of secure attachment make it difficult to separate from the family in adulthood (4).

DOI: 10.5505/kpd.2024.72368

Cite this article as: Pusuroglu M, Hocaoglu C. Evaluation of the frequency and clinical features of comorbid adult separation anxiety disorder in patients with generalized anxiety disorder. Turkish J Clin Psych 2024; 27:293-299

The arrival date of article: 15.06.2024, **Acceptance date publication:** 24.09.2024

Turkish J Clinical Psychiatry 2024;27: 293-299

The inability to separate from family ties and adult separation anxiety, and incomplete individualization makes it difficult for the person to adapt to both daily relationships and social life. The frequency of mental pathology increases in individuals whose individualization is incomplete (5). While separation anxiety disorder (SAD) was evaluated as a childhood mental disorder in the Diagnostic And Statistical Manual of Mental Disorders–IV (DSM–IV), it has been also defined for adulthood in the DSM–5. This diagnosis classification emphasizes that separation anxiety is not only limited to childhood but can also be seen in adolescence and adulthood. Previous studies had shown that separation anxiety is not only a childhood diagnosis, but some cases also begin in adulthood (6,7). However, ASAD is still not a well-known disease, and information on its etiology, clinical presentation, epidemiology, and treatment is limited.

Anxiety is a constant state of worry that accompanies some physical symptoms in the body. Although there is no obvious danger, the person has anxiety and fears that something bad will happen. Physical symptoms such as nausea, palpitations, sweating, and restlessness are often accompanied. Generalized anxiety disorder (GAD) is anxiety symptoms such as restlessness and fear that something bad will happen almost every day for at least six months. It is included in the classification of anxiety disorders in DSM–5 (8).

This patient group can often refer to physicians other than psychiatrists with their physical symptoms. For this reason, GAD one of the anxiety disorders frequently encountered in the clinic, can sometimes be overlooked. GAD is often accompanied by an additional diagnosis of mental illness, such as depressive disorder and panic disorder (9,10). Although the rate of comorbidity of GAD with mental disorders is high, the most researched comorbidity is depressive disorder. Studies investigating the comorbidity rates of GAD with other mental illnesses are less numerous in the literature (11). When the symptoms of ASAD are examined, core symptoms of anxiety are observed (2). The prevalence rate of ASAD has been reported as 6.6%. However, separation anxiety comorbidity is found to be higher in anxiety disorders (23-65%). (12-17). Recent studies have shown that ASAD has a high rate of comorbidity with other mental disorders and has a negative impact on prognosis and treatment response (18-20). The coexistence of ASAD and GAD has not been adequately investigated. On the other hand, it is not clear whether GAD and ASAD are separate diagnoses or a condition in which intertwined anxiety symptoms occur together (21).

The aim of this study was to investigate the frequency and clinical features of comorbid ASAD in GAD with patients. It was aimed to better understand the diagnosis and clinical presentation of ASAD and to contribute to the literature on the subject.

METHODS

Participants

Our study was designed as a cross-sectional observational, descriptive research. Among those who applied consecutively to Recep Tayyip University Faculty of Medicine Psychiatry Outpatient Clinic between 01.10.2022-01.03.2023, a total of 80 patients, who met the inclusion criteria, were diagnosed with GAD and ASAD according to Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria, and aged between 18 and 65, were included in the study. Patients with GAD were grouped and compared as those with and without comorbid ASAD.

As a criterion for inclusion in the study; it was determined as being able to literate, not having a condition that hinders hearing and communication, not having other comorbid mental disorders and chronic physical diseases, and not having used psychotropic medication in the last two years. Those who did not volunteer to participate in the study, those who were illiterate, younger than 18 years of age, older than 65 years of age, those with chronic physical diseases such as mental retardation, alcohol substance use disorder, dementia, neurodegenerative diseases, diabetes mellitus, chronic obstructive pulmonary disease, heart failure, and those currently using psychotropic medications were not included in the study.

Ethics statement

The ethics committee approval of the research was obtained. In addition, the 1964 Declaration of Helsinki and its subsequent revisions or similar ethical standards were adhered to at all stages of the study. Patients who met the inclusion criteria were informed about the study and written and verbal consent was obtained.

Data Collection Tools

DSM-5 Structured Clinical Interview-Clinical Version (SCID-5): The Structured Clinical Interview for DSM-5 Disorders was developed by First et al. in 2015 (22). Turkish validity and reliability study was conducted by Elbir et al. There are detailed diagnostic criteria in 32 diagnostic categories, and only exploratory questions are included in 17 diagnostic categories. Kappa coefficients for inter-rater reliability were found to be between 0.65 and 1.00, and all were found to be statistically significant (23).

Sociodemographic Data Form: It is a form prepared by us used to collect information about the demographic characteristics of patients such as age, gender, marital status, education level, and occupation.

Separation Anxiety Symptom Inventory (SASI): It was developed by Silove et al. in 1993 to evaluate the symptoms of separation anxiety in the period under 18 (24). It consists of 15 items. This scale investigates symptoms of separation anxiety that have developed since childhood. Turkish validity and reliability were made by Diriöz et al. (25).

Beck Depression Inventory (BDI): It was developed by Beck et al. in 1961 (26). The scale consists of 21 items and questions about the level of depression. It is a self-report scale. Increased scores are associated with increased levels of depression. Turkish validity and reliability were made by Hisli in 1989 (27). The Cronbach alpha value of the scale, which had good internal consistency in the Turkish sample, was found to be 0.79 in our sample.

Beck Anxiety Inventory (BAI): It was developed by Beck et al. in 1988 (28). It is a scale that evaluates the person's anxiety level consisting of 21 questions. Increased scores are associated with increased anxiety levels. Turkish validity and reliability were made by Ulusoy et al. (29). The Cronbach alpha value of the scale, which has a valid internal consistency, was calculated as 0.74 in our sample.

Adult Separation Anxiety Questionnaire (ASA): Developed in 2003 by Manicavasagar et al. (30) Turkish validity and reliability were made by Selbes et al.(31) It is a self-report scale consisting of 27 items, with increased scores associated with increased levels of separation anxiety. The Cronbach alpha value for our sample of the scale, which has good internal consistency in the validity reliability analysis, is 0.82.

Statistical Analysis

The research data was analyzed via SPSS for Windows 25.0. Descriptive statistics were presented as mean±standard deviation, frequency distribution, and percentage. The conformity of the variables to the normal distribution was examined using histogram and Kolmogorov-Smirnov Test. Ln and square root exchanges were made for the data that did not meet the normality assumption. The square test was used to compare categorical data. An independent sample t test was used to evaluate the statistical difference between two independent groups. A linear regression model was established to determine the predictive power of different variables for anxiety levels. Statistical significance level was accepted as $p<0.05$.

RESULTS

Of the 80 patients with GAD included in the study, 15 (31.9%) were male, 32 (68.1%) were female, and the mean age was 40.47±13.36 years. 33 (41.3%) of the patients met the diagnostic criteria for ASAD. Of the patients with comorbid ASAD, 2 (6.1%) were male, 31 (93.9%) were female, and the mean age was 39.58±13.34 years. A statistically significant difference was found between the two groups in terms of gender ($p=0.006$). The distribution of sociodemographic and clinical characteristics of the study groups is given in Table 1.

Table. 1. Demographic and clinical characteristics of the study groups

		GAD Group (n=47)		GAD and ASAD Group (n=33)		p
		min-max	Mean–SD	min-max	Mean–SD	
Age (mean(SD) years		19-62	40.47–13.36	18-60	39.58–13.34	0.769
		n	%	n	%	
Sex	male	15	31.9	2	6.1	0.006*
	female	32	68.1	31	93.9	
Marital status	single	16	34	8	24.2	0.346
	married	31	66	25	75.8	
Education	primary school	20	42.6	13	39.4	0.917
	high school	15	31.9	12	36.4	
	university	12	25.5	8	24.2	
Occupation	unemployed	33	70.2	19	57.6	0.243
	employee	14	29.8	14	42.4	
total		47	58.8	33	41.3	

GAD: General Anxiety Disorder
ASAD: Adult Seperation Anxiety Disorder
independent sample t test. chi square. fisher exact test

There was a significant difference between the mean scores of ASAI and s SASI of patients with a diagnosis of GAD and patients with a diagnosis of GAD and ASAD ($p<0.001$). Patients with a diagnosis of GAD and ASAD had statistically significantly higher ASA and SASI scores than patients with only GAD diagnosis. There was no significant difference between the BDI and BAI scale scores of the two patient groups ($p=0.532$; $p=0.126$, respectively), comparison of the scale scores of patients with ASAD and without ASAD was presented in (Table 2).

Regarding the anxiety level, the regression model was created by age, gender, BDI, ASA, and SASI was statistically significant ($F=6.512$; $p=<0.001$). Age, depressive symptom level, and ASA variables were significant for anxiety level ($\beta=0.328$, $p=0.001$; $\beta=0.273$, $p=0.007$; $\beta= 0.284$ $p=0.014$, respectively). An increase of 1 unit in the age variable leads to an increase of 0.013 units in the anxiety level, an increase of 0.013 units in the level of depressive symptoms, and an increase of 1 unit in the ASA scores leads to an increase of 0.008 units. The Regression Model was shown in Table 3.

DISCUSSION

This study investigated how the frequency of comorbid ASAD and the severity of separation anxiety affected anxiety symptoms in patients with GAD. When the sociodemographic data of the patients were examined, no statistically significant difference was found in demographic data other than gender between the group with only GAD diagnosis and the group with GAD and ASAD diagnoses. The female gender ratio was found to be higher in the group with comorbid ASAD diagnosis for GAD. Previous studies on the subject have also reported that ASAD is more common in female patients (32, 33). It has also been reported that women constitute a higher risk group for ASAD and that higher anxiety symptoms are observed in female patients (34). Being female and having symptoms of depression are among the risk factors for ASAD (7,11,12). In our study, it was found that 41.3% of patients with GAD had a comorbid ASAD diagnosis and that adult anxiety symptoms increased GAD symptoms. Data on ASAD are limited. However, in a large-sample study investigating the relationship between ASAD and GAD, it was reported that 20.7% of patients applying to an anxiety disorder outpatient clinic had separation anxiety in childhood and 21.7% had adult-onset ASAD (18).

In another study investigating the relationship between GAD and ASAD, this rate was reported as 45.2% (19). Although separation anxiety in childhood is thought to increase the risk of panic disorder in adulthood, separation anxiety is a risk factor for all anxiety disorders (7, 13). ASAD is a newly defined disorder for adults in DSM-5. Since it was previously considered only a childhood disorder, data on adulthood are limited. However, studies

Table 2. Comparison of The Scale Scores in Study Groups

Scale	GAD group	GAD and ASAD group	t	p[1]
	mean–SD	mean–SD		
BDS	17.30–12.59	17.27–10.25	0.603	0.532
BAS	28.87–14.90	32.39–12.60	1.473	0.126
ASA	23.17–13.67	46.18–16.57	6.300	<0.001*
SASI	11.66–07.65	19.64–10.12	3.971	<0.001*

[1]: Independent Sample t Test. *p<0.01
BDS: Beck Depression Scale. BAS: Beck Anxiety Scale
ASA: Adult Seperation Anxiety Inventory.
SASI:Seperation Anxiety Symptom Questionnaire

Table.3. The Effect of Sociodemographic Data and Separation Anxiety on Anxiety Level

	Beta[1] (%95 CI)	SE	Beta[2]	t	p	Zero	Partial	VIF
(Constant)	2.168(1.734-2.602)	0.218		9.955	<0.001			
Age	0.013(0.005-0.021)	0.004	0.328	3.337	0.001	0.313	0.362	1.030
Gender (female)	0.078(-0.180-0.337)	0.130	0.060	0.603	0.548	0.161	0.070	1.053
BDS	0.013(0.004-0.022)	0.005	0.273	2.758	0.007	0.326	0.305	1.041
SASI	0.003(-0.010-0.015)	0.006	0.046	0.424	0.673	0.185	0.049	1.269
ASA	0.008(0.002-0.015)	0.003	0.284	2.530	0.014	0.338	0.282	1.345

F=6.519; p=<0.001; R^2=0.259; SE of Estimate=0.46304; [1]: Unstandardised Coefficient ; [2]: Standardised Coefficient ; Durbin-Watson= 2.225

BDS: Beck Depression Scale. SASI: Seperation Anxiety Symptom Inventory. ASA: Adult Seperation Anxiety Questionnaire

have shown that it is also commonly seen in adults (33, 35, 36). These results support the findings of our study. On the other hand, the high comorbidity of GAD and ASAD may mean that one disorder may trigger or facilitate the emergence of the other. If, in terms of developmental history, ASAD triggers GAD, a high rate of GAD should be found in patients with adult separation anxiety. However, some studies have found that the comorbidity rates of GAD in ASAD are quite low. For example, Nestadt et al. (37) found comorbidities of generalized anxiety disorder in 3.7% of patients with adult separation anxiety disorder and major depressive disorder in 2.6%. Karaytuğ et al. (20) found psychiatric comorbidities in 81.3% of patients with adult separation anxiety disorder (major depression 29%, panic disorder 17.8%, obsessive-compulsive disorder-OCD 16.8%, agoraphobia 11.2%, bipolar disorder 6.5%). The results of these studies are not consistent with the findings of our study. DSM-5 recommends that if a patient has symptoms of more than one psychiatric disorder, a separate diagnosis should be made for each symptom group. In the differential diagnosis of GAD and ASAD, the stressor that triggers anxiety should be well determined. In separation anxiety disorder, the primary stressor is the anxiety of separation from the person to whom the person is attached. Nevertheless, the fact that GAD and ASAD diagnoses contain similar symptoms makes it difficult to distinguish between the two diagnoses. Most of the time, the ASAD diagnosis is not recognized and can only be evaluated as GAD, or the GAD diagnosis can be ignored in patients with an ASAD diagnosis. In other words, it may not always be possible to distinguish two different psychiatric disorders that share the same symptoms.

ASAD is seen as a continuation of childhood separation anxiety symptoms. In our study, the separation anxiety symptoms of the patients in childhood were evaluated with SASI and no statistically significant relationship was found between GAD symptoms and SAD. This finding confirms the idea that in a significant portion of the cases, separation anxiety symptoms begin in adulthood rather than in childhood. However, both ASA and SASI scores were found to be higher in the group with GAD and comorbid ASAD diagnoses than in the group without ASAD diagnosis. In line with these findings, it can be thought that individuals with SAD in childhood may show more ASAD symptoms in the future. Similar results have been obtained in studies conducted on the subject (5,6,33).

Separation fear, which is mostly directed towards parents in childhood, may be related to difficulties experienced in separation from loved ones in adulthood. The core symptom, separation anxiety, may be difficult to distinguish from anxiety disorder symptoms. Both involve a constant state of anxiety and restlessness. Therefore, ASAD symptoms may not be noticed among the existing anxiety symptoms in patients with GAD, and the ASAD diagnosis may be overlooked. Studies show that comorbid ASAD reduces treatment response rates and increases the likelihood of anxiety symptoms recurring in patients with anxiety disorders (12, 34, 38). Therefore, it is important to question the diagnosis of ASAD in the diagnosis and treatment process of anxiety disorders (19, 20, 39).

Another finding of our study is that anxiety levels increase with increasing depressive symptoms. Consistent with our research findings, many studies have shown that depression is a risk factor for anxiety disorders and negatively affects prognosis (9, 14, 18). It has also been reported that the incidence of ASAD increases in patients diagnosed with major depression, similar to GAD (14).

This study has some limitations. Due to the cross-sectional nature of the study and the fact that it was conducted in a single center, the findings cannot be generalized. At the same time, it is not possible to

establish a cause-and-effect relationship with the current findings. In addition, other factors that predict anxiety disorders were not included in the study. However, it is important that the study sample was created meticulously and that each case was evaluated face to face and in detail. Another advantage of the study is that there is limited data in the existing literature on the subject.

GAD is a chronic mental disorder that seriously reduces the quality of life of patients and can make it difficult for the person to continue their daily life activities, and can prevent success in areas such as work life, school performance or personal relationships. Other comorbid mental disorders are frequently observed in patients diagnosed with GAD. Other accompanying factors should be considered in detail during the GAD treatment process and comorbid mental disorders should also be included in the treatment process. ASAD diagnosis negatively affects GAD prognosis and comorbid ASAD diagnosis is associated with decreased response to treatment. The distinction between ASAD and GAD symptoms can often be difficult and ASAD diagnosis can be overlooked in patients with anxiety symptoms. It is noteworthy that a high rate of comorbid ASAD was detected in patients diagnosed with GAD in our study. Data on ASAD, a newly defined diagnosis for adulthood, are limited in the literature and therefore further research with a large sample is needed on the subject.

Correspondence address: Prof., Cicek Hocaoglu, Department of Psychiatry, Recep Tayyip Erdogan University, Rize, Turkey
cicekh@gmail.com

REFERENCES

1. Bassi G, Mancinelli E, Spaggiari S, Lis A, Salcuni S, Di Riso D. Attachment style and its relationships with early memories of separation anxiety and adult separation anxiety symptoms among emerging adults. Int J Environ Res Public Health 2022; 19:8666.

2. Namlı Z, Özbay A, Tamam L. Adult separation anxiety disorder: A review. Current Approaches in Psychiatry 2022; 14:46-56.

3. Cheung RY, Cummings EM, Zhang Z, Davies PT. Trivariate modeling of interparental conflict and adolescent emotional security: An examination of mother-father-child dynamics. J Youth Adolesc 2016; 45:2336-2352.

4. Seligman LD, Wuyek LA. Correlates of separation anxiety symptoms among first-semester college students: an exploratory study. J Psychol 2007; 141:135-145.

5. Faraji H, Özen ZD. The mediator role of adult separation anxiety between separation anxiety and the level of individuation in emerging adulthood. Mavi Atlas 2022; 10:47-69.

6. Manicavasagar V, Silove D, Curtis J, Wagner R. Continuities of separation anxiety from early life into adulthood. J Anxiety Disord 2000; 14:1-18.

7. Silove DM, Marnane CL, Wagner R, Manicavasagar VL, Rees S. The prevalence and correlates of adult separation anxiety disorder in an anxiety clinic. BMC Psychiatry 2010; 10: 21:1-7.

8. Strawn JR, Dobson ET. Individuation for a DSM-5 disorder: Adult separation anxiety. Depress Anxiety 2017; 34:1082-1084.

9. Balestrieri M, Isola M, Quartaroli M, Roncolato M, Bellantuono C. Assessing mixed anxiety-depressive disorder. A national primary care survey. Psychiatry Res 2010; 176:197-201.

10. Ruscio AM, Hallion LS, Lim CCW, Gaxiola SA, Hamzawi AA, Alonso J, Andrade LH, Borges G, Bromet EJ, Bunting B, Almeida JMC, Demyttenaere K, Floresccu S, Girolamo G, Gureje O, Haro JM, He Y, Hinkov H, Hu C, Jonge P, Karam EG, Lee S, Lepine JP, Levinson D, Mneimneh Z, Mateu FN, Villa JP, Slade T, Stein DJ, Torres Y, Uda H, Wojtyniak B, Kessler RC, Chatterji S, Scott KM. Cross-sectional comparison of the epidemiology of DSM-5 generalized anxiety disorder across the globe. JAMA Psychiatry 2017;74:465-475.

11. Bandelow B, Michaelis S. Epidemiology of anxiety disorders in the 21st century. Dialogues Clin Neurosci 2015; 17:327-35.

12.Kirsten LT, Grenyer BFS, Wagner R, Manicavasagar V. Impact of separation anxiety on psychotherapy outcomes for adults with anxiety disorders. Couns Psychother Res 2008; 8: 36–42.

13.Dogan B, Kocabas O, Sevincok D, Baygin C, Memis CO, Sevincok L. Separation anxiety sisorder in panic disorder patients with and without comorbid agoraphobia. Psychiatry 2021; 84:68-80.

14.Elbay RY, Görmez A, Kılıç A, Avcı SH. Separation anxiety disorder among outpatients with major depressive disorder: Prevalence and clinical correlates. Compr Psychiatry 2021; 105:152219. doi: 10.1016/j.comppsych.2020.152219.

15.Avedisova AS, A Arkushae I, Akzhigitov RG, Anosov YA, Zakharova KV. [Prevalence of anxiety separation disorder in adult outpatients with non-psychotic mental disorders]. Zh Nevrol Psikhiatr Im S S Korsakova. 2020; 120:92-98.

16. Franz AP, Rateke L, Hartmann T, McLaughlin N, Torres AR, do Rosário MC, Filho EC, Ferrão YA. Separation anxiety disorder in adult patients with obsessive-compulsive disorder: prevalence and clinical correlates. Eur Psychiatry 2015; 30:145-151.

17.Tasdemir A, Tamam L, Keskin N, Evlice YE. Assessment of co-morbidity of adult separation anxiety in patients with bipolar disorder. Nord J Psychiatry 2016; 70:93-102.

18. Pini S, Abelli M, Shear KM, Cardini A, Lari L, Gesi C, Muti M, Calugi S, Galderisi S, Troisi A, Bertolino A, Cassano GB. Frequency and clinical correlates of adult separation anxiety in a sample of 508 outpatients with mood and anxiety disorders. Acta Psychiatr Scand 2010;122:40-46.

19 Ekici F, Karaoğlan G, Kandeğer A, Demir LS, Güler Ö. Exploring overlooked anxiety disorders: A study on the prevalence of adult separation anxiety disorder and specific phobia in the general population. Genel Tıp Derg 2023; 33:796-805.

20. Karaytuğ MO, Tamam L, Demirkol ME, Namlı Z, Gu̇rbu̇z M. The related factors with functionality and the comorbidity in the patients with adult separation anxiety disorder. Turkish J Clin Psy 2021; 24: 481-490.

21. Boelen PA, Reijntjes A, Carleton RN. Intolerance of uncertainty and adult separation anxiety. Cogn Behav Ther 2014; 43: 133-144.

22. First MB. Structured Clinical Interview for the DSM (SCID). The Encyclopedia of Clinical Psychology, First Edition. R.L. Cautin, SO Lilienfeld (Ed), 2015; Wiley-Blackwell.

23. Elbir M, Alp Topbaş Ö, Bayad S, Kocabaş T, Topak OZ, Çetin Ş, Özdel O, Ateşçi F, Aydemir Ö. Adaptation and Reliability of the Structured Clinical Interview for DSM-5-Disorders - Clinician Version (SCID-5/CV) to the Turkish Language. Turk Psikiyatri Derg 2019; 30:51-56.

24. Silove D, Manicavasagar V, O'Connell D, Blaszczynski A, Wagner R, Henry J. The development of the Separation Anxiety Symptom Inventory (SASI). Aust N Z J Psychiatry 1993; 27:477-488.

25. Diriöz M, Alkın T, Yemez B, Onur E, Eminağaoğlu N. The validity and reliability of Turkish version of separation anxiety symptom inventory and adult separation anxiety questionnaire. Turk Psikiyatri Derg 2012; 23:108-116.

26. Beck AT, Ward CH, Mendelson M, Mock J, Erbaugh J. An inventory for measuring depression. Arch Gen Psychiatry 1961; 4:561-571.

27. Hisli N. A reliability and validity study of Beck Depression Inventory in a university student sample. J Psychol 1989; 7:3-13.

28. Beck AT, Epstein N, Brown G, Steer RA. An inventory for measuring clinical anxiety: psychometric properties. J Consult Clin Psychol 1988; 56:893-897.

29. Ulusoy M, Sahin NH, Erkmen H. The Turkish version of the Beck Anxiety Inventory: Psychometric properties. J Cogn Pschother 1998;12:163-167.

30. Manicavasagar V, Silove D, Wagner R, Drobny J. A self-report questionnaire for measuring separation anxiety in adulthood. Compr Psychiatry 2003; 44:146-53.

31.Selbes A, Berkol TD, Kunt S, Uğurpala C, Mehtar M, Gökçeimam P. Examination of adult separation anxiety and bonding styles in patients with panic disorder who applied to a psychiatric clinic. Turk Psikiyatri Derg 2018; 29:171-179.

32. Peleg O, Shalev R, Cohen A, Hadar E. How is the loss of a parent in youth related to attachment and adult separation anxiety among women?. Stress Health 2024; 40(3):e3356. doi: 10.1002/smi.3356.

33. Finsaas MC, Klein DN. Is adult separation anxiety associated with offspring risk for internalizing psychiatric problems? Psychol Med 2023; 53:3168-3177.

34. Finsaas MC, Klein DN. Adult separation anxiety: Personality characteristics of a neglected clinical syndrome. J Abnorm Psychol 2021; 130: 620-626.

35. Patel AK, Bryant B. Separation Anxiety Disorder. JAMA 2021; 326(18):1880.

36.Arkusha IA, Zakharova KV, Zinchuk MS, Avedisova AS. Klinicheskie varianty i tipy techeniya trevozhnogo rasstroistva separatsii u vzroslykh [Clinical variants and types of course of separation anxiety disorder in adults]. Zh Nevrol Psikhiatr Im S S Korsakova 2021; 121:19-25.

37. Nestadt G, Samuels J, Riddle MA, Liang KY, Bienvenu OJ, Hoehn-Saric R, Grados M, Cullen B. The relationship between obsessive-compulsive disorder and anxiety and affective disorders: results from the Johns Hopkins OCD Family Study. Psychol Med 2001; 31:481-487.

38. Fagan HA, Baldwin DS. Pharmacological treatment of generalised anxiety disorder: Current practice and future directions. Expert Rev Neurother 2023; 23:535-548.

39.Wilmer MT, Anderson K, Reynolds M. Correlates of quality of life in anxiety disorders: Review of recent research. Curr Psychiatry Rep 2021; 23:77. doi: 10.1007/s11920-021-01290-4.