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The Relationship Between Adult Attachment Styles and Social Anxiety Disorder: The Role of Parental Bonding in Outpatient Adults

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ABSTRACT

Purpose: This study aimed to explore the connection between attachment styles and social anxiety disorder (SAD) in patients receiving psychiatric outpatient treatment.

Methods: The research included 85 participants, comprising 45 individuals diagnosed with SAD and 40 healthy controls. The participants completed assessments on social anxiety, parental bonding, and attachment styles.

Results: Participants with SAD showed significantly lower maternal care scores (16.31 ± 2.30) compared to the healthy control group (28.77 ± 6.77, $p < .001$) and notably lower paternal care scores (16.84 ± 3.14 vs. 25.28 ± 9.28, $p < .001$). They also exhibited higher avoidant (25.88 ± 7.39 vs. 22.47 ± 6.23, $p = .034$) and anxious attachment scores (23.65 ± 7.66 vs. 16.80 ± 6.98, $p < .001$). The Liebowitz Social Phobia Scale scores were positively correlated with avoidant ($r = .433$, $p < .001$) and anxious attachment ($r = .458$, $p < .001$), while negatively correlated with maternal ($r = -.566$, $p<.001$) and paternal care ($r=-.384$,$p<.001$).

Conclusion: The study demonstrates that insecure attachment styles and inadequate parental care are closely linked to elevated levels of social anxiety. These results underscore the need for considering attachment-based interventions when treating social anxiety disorder.

Keywords: Social anxiety disorder, attachment styles, parental bonding, childhood, adult

ÖZET

Amaç: Bu çalışma, bir psikiyatri kliniğinde ayaktan tedavi gören hastalarda bağlanma stilleri ile sosyal anksiyete bozukluğu (SAB) arasındaki ilişkiyi araştırmayı amaçladı.

Yöntem: Çalışmaya 45›i SAB tanısı almış ve 40›ı sağlıklı kontrol grubu olmak üzere toplam 85 katılımcı dahil edilmiştir. Katılımcılar, sosyal anksiyete, ebeveyn bağlanması ve bağlanma stillerine yönelik değerlendirmeleri tamamladılar.

Bulgular: SAB tanılı katılımcılar, sağlıklı kontrol grubuna kıyasla anlamlı olarak daha düşük anne ilgisi (16,31 ± 2,30) ve baba ilgisi (16,84 ± 3,14) puanları bildirmiştir ($p < 0,001$). Ayrıca, kaçınmacı (25,88 ± 7,39 vs. 22,47 ± 6,23, $p = 0,034$) ve kaygılı bağlanma (23,65 ± 7,66 vs. 16,80 ± 6,98, $p < 0,001$) puanları anlamlı olarak daha yüksek bulunmuştur. Liebowitz Sosyal Fobi Belirti Ölçeği puanları, kaçınmacı bağlanma ($r = 0,433$, $p < 0,001$) ve kaygılı bağlanma ($r = 0,458$, $p < 0,001$) ile pozitif yönde korelasyon gösterirken, anne ilgisi ($r = -0,566$, $p < 0,001$) ve baba ilgisi ($r = -0,384$, $p < 0,001$) ile negatif yönde korelasyon göstermiştir.

Sonuç: Bu çalışma, güvensiz bağlanma stilleri ve yetersiz ebeveyn ilgisinin daha yüksek seviyelerde sosyal anksiyete ile yakından ilişkili olduğunu göstermektedir. Bulgularımız, sosyal anksiyete bozukluğunun tedavisinde bağlanma temelli müdahalelerin dikkate alınmasının önemini vurgulamaktadır.

Anahtar Kelimeler: Sosyal anksiyete bozukluğu, bağlanma stilleri, ebeveyn bağlanması, çocukluk, erişkin.

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Social anxiety disorder (SAD), often referred to as social phobia, is a prevalent anxiety disorder, particularly among children and adolescents (1). It is marked by an enduring fear of social situations where individuals may encounter strangers, be judged, or have to perform, leading to excessive anxiety, avoidance behaviors, and a significant decline in functioning. The disorder typically emerges during adolescence when individuals become increasingly sensitive to social approval and acceptance. Although the onset generally occurs between ages 13 and 24, it is common for individuals to delay seeking treatment for 15-20 years, often believing their symptoms are personality traits rather than a treatable condition (1). Studies on social phobia prevalence have reported varying rates, with research conducted at various universities in Turkey indicating prevalence rates between 9% and 22% (1). The importance of social phobia has risen in recent years due to its chronic nature, its high comorbidity rate, and its substantial economic burden (1).

Attachment theory suggests that the need for a caregiver during infancy extends beyond nourishment to include the comfort derived from the caregiver's presence. John Bowlby developed this theory, proposing that "attachment behaviors" in infants, such as crying or distress when separated from the caregiver, are alleviated by the caregiver's return. These behaviors are viewed as an evolutionary mechanism that reinforces survival and a sense of security (2). The type of attachment formed is shaped by the relationship between the child and the caregiver, influencing the individual's expectations and behaviors in relationships throughout adulthood (3). Securely attached children tend to view themselves as valuable and worthy of love, whereas those with insecure attachments may become more anxious, withdrawn, or overly focused on independence (4).

The family plays a crucial role in providing the care and affection necessary for a child's well-being. Parental attitudes in child-rearing significantly influence the child's personality development and ability to adapt to society. Some studies suggest that interactions within the family during childhood can contribute to the development of social phobia (5). Overly protective or neglectful parenting practices have been shown to increase the risk of social phobia in children (6,7). Consequently, negative attachment experiences during childhood may predispose individuals to social anxiety disorders later in life (8,9).

While it is well-established that attachment experiences significantly impact interpersonal relationships throughout an individual's life, their etiological role in developing social phobia is not yet fully understood (10). The number of studies in this area is limited. Previous research indicates that insecure attachment may be a risk factor for developing anxiety disorders and could play a role in the etiology of social phobia (11). Specifically, individuals with anxious/preoccupied attachment styles may experience greater stress in social situations, potentially increasing their risk of developing social phobia due to a fear of rejection (11). Recent studies have further clarified this relationship, demonstrating that insecure attachment, including both anxious and avoidant styles, is significantly associated with higher levels of social anxiety. For instance, Nielsen et al. found that individuals with high levels of attachment anxiety were more likely to exhibit elevated social anxiety symptoms (12). Similarly, Read et al. reported that both attachment anxiety and avoidance are directly linked to social anxiety, reinforcing the role of insecure attachment as a key risk factor (11). Furthermore, a recent study by Fattouh et al. involving Lebanese adolescents confirmed that dysfunctional attachment types, such as avoidant and anxiety-related attachments, lead to maladaptive interpersonal relationships and negative self-perceptions, which are directly associated with elevated social anxiety symptoms (13). These findings highlight the importance of considering attachment characteristics when understanding the etiology and persistence of social anxiety.

Our study aims to explore the connection between attachment styles and the severity of social phobia in patients receiving outpatient psychiatric care. By focusing on the potential role of attachment-based interventions in the treatment of social phobia, this research seeks to contribute significantly to the existing literature in this field.

Material and Method

Procedure

This study included patients diagnosed with SAD according to the diagnostic criteria outlined in the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (14). These patients were selected from those who sought treatment at a psychiatric clinic. Diagnoses were confirmed by a specialist psychiatrist following a comprehensive psychiatric evaluation and review of the patient's medical history. The inclusion criteria for participation in the study were as follows: 1) individuals aged between 18 and 45, 2) a diagnosis of

SAD as per DSM-5 criteria without any other psychiatric or neurological disorders, and 3) literacy. The control group consisted of healthy volunteers matched to the patient group based on age and gender, ensuring that these variables did not influence the study's outcomes. These volunteers were screened to confirm the absence of any psychiatric or neurological disorders, and they did not exhibit any symptoms of social anxiety. Individuals with a history of substance abuse, severe physical illnesses, or any other mental health issues were excluded from both the patient and control groups. Both the patients diagnosed with SAD and the healthy control group were thoroughly informed about the study's purpose and methodology, both verbally and in writing. Those who consented to participate completed the assessments, which included the Sociodemographic and Clinical Data Form, the Liebowitz Social Phobia Scale (LSAS), the Parental Bonding Instrument (PBI), and the Adult Attachment Scale (AAS). During this process, participants received comprehensive guidance on the completion of each assessment scale to ensure consistency and minimize response bias. The scales were administered in a controlled environment to maintain standardization, with trained research assistants available to address any queries or uncertainties. Participants were also explicitly informed about the importance of providing accurate and truthful responses and were reassured that all data collected would remain strictly confidential to foster an environment of trust and encourage candid reporting.

Approval for this research was granted by the Hamidiye Scientific Research Ethics Committee at the University of Health Sciences on May 13, 2023, with decision number 27740.

Data Collection Tools

Liebowitz Social Anxiety Scale

The LSAS, initially developed by Liebowitz in 1987 (15), was later adapted into Turkish by Soykan, Özgüven, and Gençöz in 2003 (16). This scale assesses the levels of anxiety and avoidance that individuals experience in social interactions and performance situations. The LSAS consists of 24 items, rated on a 4-point Likert scale, with each item evaluated separately under the categories of anxiety and avoidance.

Adult Attachment Scale

The AAS comprises two parts. The first part, developed by Hazan and Shaver in 1987, categorizes individuals into three groups—secure, avoidant, and anxious/ambivalent attachment styles—based on their childhood relationships with their parents (17). The second part of the scale, designed by Mikulincer et al. in 1990, assesses individuals' attachment patterns and consists of 15 items rated on a 7-point Likert scale (18). The Turkish adaptation of the second part of the scale was conducted by Sabuncuoğlu and Berkem in 2006 (19). Due to the low reliability (Cronbach's Alpha of. 42) found in the secure attachment subscale, Kesebir et al. (2012) revised the scale by removing unclear items and expanding it to 18 items (20). The revised scale demonstrated improved reliability, with Cronbach's Alpha values of .72 for secure attachment, .82 for avoidant attachment, and .85 for anxious/ambivalent attachment (20).

Parental Bonding Instrument

The PBI, based on Bowlby's attachment theory, retrospectively assesses an individual's relationship patterns with their parents (21). The scale focuses on the social bond between the child and the primary caregiver, featuring two subdimensions: care and control/overprotection. The Turkish adaptation of the PBI was carried out by Kapçı and Küçüker in 2006 (22). The scale asks individuals to evaluate their parents' behaviors during the first 16 years of life using a 4-point Likert scale. High scores in the care dimension indicate that the parents were warm and accepting, while low scores suggest cold and rejecting behaviors. In the control/overprotection dimension, high scores reflect overly controlling behavior. The reliability analysis of the PBI yielded Cronbach's Alpha coefficients of .87 for the mother form and .89 for the father form. Test-retest reliability coefficients were also calculated, with scores of .90 for the mother form and .89 for the father form across the entire scale (22). The PBI is considered a reliable tool for evaluating children's relationships with their parents, making it a valuable resource for research and clinical practice (22).

Statistical Analysis

Data were analyzed using SPSS software (version 24.0) on a Mac OS system. We summarized the data through descriptive statistics such as means, percentages, standard deviations, and frequencies. The normality of numerical data was evaluated with the Kolmogorov-Smirnov test. To compare groups, we employed the Chi-square test for categorical data and the Student's t-test for continuous data. Relationships among parametric variables were examined using Pearson's correlation coefficient. A p-value of less than 0.05 was considered to indicate statistical significance.

Results

The study included 85 participants: 45 with SAD and 40 healthy controls (HC). The mean±SD age was 24.33 ± 6.25 years in the SAD group and 26.25 ± 5.63 years in the HC group, with no significant age difference between the groups (p = .143). The gender distribution was also similar, with 51.1% of the Social Phobia group and 51.5% of the HC group being male (p = .898). Significant differences were observed in education and employment status. The SAD group had significantly fewer years of education (13.86 ± 3.09) compared to the HC group (15.55 ± 3.08; p = .015). Additionally, a significantly higher proportion of participants in the SAD group were unemployed or had irregular employment (71.1%) compared to the HC group (37.5%; p = .002). Other characteristics such as marital status, smoking habits, history of alcohol or substance use, family migration, loss of a parent/caregiver during early childhood, family history of psychiatric disorders, history of suicide attempts, and history of psychiatric disorders during childhood and adolescence did not show statistically significant differences between the groups (Table 1).

Table 2 reveals significant differences in parental bonding and attachment styles between the SAD and HC groups. Participants with SAD reported significantly lower maternal care scores (16.31 ± 2.30) compared to the HC group (28.77 ± 6.77; p < .001; Cohen's d = 2.53), indicating a very large effect size. In terms of maternal overprotection, the SAD group reported significantly lower scores (18.35 ± 4.18) compared to the HC group (24.82 ± 6.58; p < .001; Cohen's d = 1.18), also reflecting a large effect. Similarly, paternal care scores were significantly lower in the SAD group (16.84 ± 3.14) compared to the HC group (25.28 ± 9.28; p < .001; Cohen's d = 1.18), suggesting a large effect size. Paternal overprotection scores were significantly lower in the SAD group (21.35 ± 4.69) compared to the HC group (27.54 ± 5.94; p < .001; Cohen's d = 1.16), again showing a large effect size.

Table 1: Basic characteristics of Participants

	Total Sample (n=85)			
	Social Phobia (N:45)	***Healthy Control (N:40)***		
	Mean±SD / n (%)	***Mean±SD / n (%)***	***p***	
Age	*24.33±6.25*	*26.25±5.63*	*.143*	^{S}
Sex (male)	*23 (51.1)*	*21 (51.5)*	*.898*	$^{X^2}$
Education (years)	*13.86±3.09*	*15.55±3.08*	*.015*	^{S}
Employment (no/irregular)	*32 (71.1)*	*15 (37.5)*	*.002*	$^{X^2}$
Marital Status (married)	*5 (11.1)*	*6 (15.0)*	*.594*	$^{X^2}$
Smokers (yes)	*16 (36.4)*	*8 (20.0)*	*.097*	$^{X^2}$
History of Alcohol/ Substance Use (yes)	*8 (17.8)*	*11 (27.5)*	*.283*	$^{X^2}$
History of Family Migration (yes)	*4 (8.9)*	*6 (15.0)*	*.383*	$^{X^2}$
Loss of a Parent/Caregiver During Early Childhood (yes)	*3 (6,7)*	*0 (0.0)*	*.244*	^{F}
Family History of Psychiatric Disorders (yes)	*14 (33.3)*	*8 (20.0)*	*.173*	$^{X^2}$
History of Suicide Attempts (yes)	*4 (9.3)*	*0 (0.0)*	*.117*	^{F}
History of Psychiatric Disorders During Child and Adolescent (yes)	*6 (14.0)*	*1 (2.5)*	*.111*	$^{X^2}$

^{S} Student's t-test/ $^{X^2}$Chi-squared test/ ^{F}Fisher Exact Test/ p<0.05 statistically significant

Table 2: Comparison of the Between Social Phobia and Healthy Control Groups Parental Bonding Instrument, and Adult Attachment Scale

	Total Sample (n=85)			
	Social Phobia (N:45)	***Healthy Control (N:40)***		
	Mean±SD	*Mean±SD*	*p*	*Cohen's d*
Parental Bonding Instrument (mother form)				
Care	*16.31±2.30*	*28.77±6.77*	*<.001*	*2.53*
Overprotection	*18.35±4.18*	*24.82±6.58*	*<.001*	*1.18*
Parental Bonding Instrument (father form)				
Care	*16.84±3.14*	*25.28±9.28*	*<.001*	*1.18*
Overprotection	*21.35±4.69*	*27.54±5.94*	*<.001*	*1.16*
Adult Attachment Scale				
Secure	*21.84±8.08*	*24.37±6.26*	*.131*	*.35*
Avoidant	*25.88±7.39*	*22.47±6.23*	*.034*	*.50*
Anxious	*23.65±7.66*	*16.80±.698*	*<.001*	*.93*
Liebowitz Social Anxiety Scale	*119.56±25.66*	*75.60±13.51*	*<.001*	*2.13*
The Student t test was used.				

In terms of adult attachment styles, no significant difference was found in secure attachment between the two groups ($p = .131$; Cohen's $d = 0.35$), indicating a small effect size. However, the SAD group scored significantly higher on the avoidant attachment scale (25.88 ± 7.39) compared to the HC group (22.47 ± 6.23; $p = .034$; Cohen's $d = 0.50$), suggesting a medium effect size. The SAD group also scored significantly higher on the anxious attachment scale (23.65 ± 7.66) compared to the HC group (16.80 ± 6.98; $p < .001$; Cohen's $d = 0.93$), reflecting a large effect size. Additionally, the Liebowitz Social Anxiety Scale (LSAS) scores were significantly higher in the SAD group (119.56 ± 25.66) compared to the HC group (75.60 ± 13.51; $p < .001$; Cohen's $d = 2.13$), indicating a very large effect size.

The correlation analysis (Table 3) revealed significant associations between LSAS scores and both parental bonding and adult attachment styles. LSAS scores were inversely correlated with maternal care ($r = -.566$, $p < .001$) and paternal care ($r = -.384$, $p < .001$), indicating that lower perceived parental care is linked to higher social anxiety. Similarly, negative correlations were found with maternal overprotection ($r = -.449$, $p < .001$) and paternal overprotection ($r = -.399$, $p < .001$), suggesting that reduced parental overprotection is associated with increased social anxiety. For adult attachment styles, LSAS scores were positively correlated with avoidant ($r = .433$, $p < .001$) and anxious attachment ($r = .458$, $p < .001$), while a negative correlation was found with secure attachment ($r = -.294$, $p = .009$), indicating that insecure attachment styles are linked to higher social anxiety, whereas secure attachment is associated with lower social anxiety.

Tablo 3: Correlation analysis of clinical variables

Correlations								
		Parental Bonding Instrument				Adult Attachment Scale		
		Mother form		Father form				
		Care	Overprotection	Care	Overprotection	Avoidant	Anxious	Secure
Liebowitz Social Anxiety Scale	Pearson Correlation	-,566**	-,449**	-,384**	-,399**	,433**	,458**	-,294**
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	0,000	0,000	0,009
	N	79	79	79	79	77	77	79

**. Correlation is significant at the 0.01 level (2-tailed).

Discussion

This study sought to explore the relationship between attachment styles and SAD among patients. The findings highlight significant differences in parental bonding and adult attachment styles between individuals with social phobia and healthy controls, suggesting how these factors might influence the development and severity of social anxiety.

One key finding of our study was that individuals with social phobia perceived their parents, especially their mothers, as providing significantly lower levels of care. This suggests that these individuals experienced their parents as cold, rejecting, and neglectful, which may contribute to the development of social anxiety. Research has consistently shown that maternal care plays a particularly crucial role in the emotional regulation and social development of children. Inadequate maternal responsiveness is often linked to increased vulnerability to anxiety disorders (23). Since mothers are typically the primary attachment figures, their responsiveness and warmth are essential for fostering secure attachment, which can serve as a protective factor against social anxiety (6,7). This aligns with earlier research by McLeod et al. (24), which demonstrated that inadequate parental care is linked to higher levels of anxiety and depressive symptoms in offspring. Similarly, Lieb et al. (25) found that children who perceive their parents as uncaring are more likely to develop anxiety disorders, including social phobia. These consistent findings highlight the importance of early caregiving experiences, particularly maternal care, in shaping an individual's emotional and social development

Contrary to the common belief that overprotective parenting exacerbates anxiety, our study found that patients with social phobia reported lower levels of perceived parental overprotection compared to the control group. This finding is intriguing, as overprotectiveness is generally believed to contribute to anxiety by restricting a child's autonomy and fostering a fear of the outside world. Typically, excessive parental control is associated with higher levels of anxiety in children, as shown in studies like those by Parker et al. (26). However, in our sample, it appears that lower levels of perceived parental control were actually linked to higher social anxiety. Similar findings have been reported by Fattouh et al. who found that dysfunctional attachment strategies during formative years are associated with heightened anxiety symptoms and maladaptive interpersonal relationships (13). This suggests that these individuals might have felt a lack of guidance and support in navigating social challenges, which could lead to greater insecurity in social situations. This paradoxical effect implies that while some degree of parental control may provide necessary structure and security, too little control may leave individuals feeling unsupported and vulnerable to anxiety, as suggested by Bögels and Brechman-Toussaint (7).

Regarding adult attachment styles, our results showed that individuals with social phobia were more likely to exhibit avoidant or anxious/ambivalent attachment styles. This supports the idea that these specific insecure attachment patterns, characterized by either a fear of rejection (as seen in anxious attachment) or emotional distancing (as seen in avoidant attachment), may be associated with higher levels of social anxiety. Previous studies, such as those by Warren et al. (27), have similarly shown that anxious attachment is particularly linked to heightened sensitivity to social threats, which can exacerbate social anxiety. The positive correlation between avoidant attachment and social anxiety in our study also aligns with the work of Mikulincer and Shaver (4), who argued that avoidant individuals may experience underlying social fears despite outwardly minimizing the importance

of social interactions. Similarly, Read et al. demonstrated that avoidant and anxious attachment styles are strongly associated with social anxiety, reinforcing the idea that different insecure attachment styles may contribute to social anxiety through distinct but overlapping pathways (11). The anxious attachment heightens sensitivity to rejection, making individuals more prone to perceive social threats. In contrast, avoidant attachment reflects an underlying fear of social engagement despite an outward indifference to social interactions.

Secure attachment was found to have a significant negative correlation with the severity of social anxiety symptoms, indicating its protective role in mitigating anxiety. This finding aligns with Muris et al. (9), who emphasized the emotional resilience fostered by secure attachment against anxiety disorders. Secure attachment provides individuals with a stable base, reducing sensitivity to social threats and enhancing coping mechanisms during stress (28). The ability to rely on a caregiver during early development fosters a sense of safety and stability, which mitigates anxiety in challenging situations (2). Parental behaviors that promote security, such as warmth, responsiveness, and consistency, have been shown to build resilience against social anxiety (12). Our findings demonstrate consistently lower social anxiety symptoms among individuals with secure attachment, reinforcing its protective role. This supports attachment theory, which posits that secure attachment equips individuals with the psychological resources necessary for effectively managing stress and anxiety (2). Therefore, enhancing secure attachment through interventions could be beneficial in reducing social anxiety severity (11,28).

Additionally, we found that lower levels of perceived parental care were associated with more severe social anxiety symptoms, reinforcing the idea that inadequate early caregiving experiences can contribute to the intensity of social anxiety in later life. This aligns with the attachment theory proposed by Bowlby (8), who emphasized the long-term impact of early attachment experiences on emotional development. Interestingly, our findings also revealed a negative correlation between overprotectiveness and the severity of social anxiety symptoms, which is contrary to typical expectations. This suggests that, while excessive control might generally be seen as detrimental, in our sample, a lack of perceived control may have left individuals feeling unsupported and vulnerable, thereby increasing their social anxiety. This phenomenon has been discussed in studies like those by Rapee (29), where the absence of a perceived protective parental role was linked to greater emotional difficulties in children.

The findings of this study also highlight the need for considering attachment-based approaches in clinical settings for treating social anxiety. Attachment-Based Family Therapy and Emotion-Focused Therapy have shown promise in enhancing secure attachment, which can mitigate the risk of social anxiety by reducing the vulnerability to perceived social threats. Additionally, enhancing caregiving practices, such as promoting warmth, responsiveness, and consistency, is crucial in reducing the risk of insecure attachment, which is often a precursor to social anxiety symptoms (30). Our study's focus on parental bonding emphasizes its influence on social anxiety levels throughout different stages of life, which provides a developmental perspective that is crucial for understanding and effectively treating social anxiety. Integrating these insights into therapeutic practices may enhance current treatment models by addressing both the symptoms and the underlying vulnerabilities associated with attachment insecurities (2,4).

Several limitations to this study should be noted. First, the relatively small sample size may limit the generalizability of the findings to the broader population. The findings should be interpreted cautiously, as larger studies are needed to confirm these results. Second, the cross-sectional design of this study prevents us from drawing any conclusions about the causality between attachment styles and social anxiety disorder. Future longitudinal research is needed to establish temporal relationships and causation. Third, using retrospective self-reports in the Parental Bonding Instrument may lead to recall bias, which could affect the accuracy of the data regarding childhood attachment experiences. Participants' memories of their early caregiving environments may be influenced by their current emotional state, potentially skewing the results. Additionally, the SAD and control groups were not fully matched in terms of educational attainment, with the SAD group showing a lower average education level. This difference could have influenced the outcomes, as educational level may affect coping strategies and the overall vulnerability to anxiety. Despite this limitation, the age and gender matching between groups helped minimize confounding factors related to developmental differences, allowing for a focused analysis of attachment styles and parental bonding.

Conclusion

This study highlights the significant relationship between early attachment experiences and social anxiety disorder. Our findings suggest that both insufficient parental care, particularly inadequate maternal care, and insecure attachment styles are crucial factors in the etiology and severity of social phobia. These results emphasize the importance of considering attachment-based approaches in the assessment and treatment of social anxiety. Future research should further explore these dynamics, particularly through longitudinal studies to clarify the causal relationships between early attachment experiences and the later development of social anxiety symptoms.

Declarations

Funding

The authors declared that this study received no financial support.

Conflicts of Interest/Competing Interests

The authors have no conflicts of interest to declare.

Ethics Approval

Approval for this research was granted by the Hamidiye Scientific Research Ethics Committee at the University of Health Sciences on May 13, 2023, with decision number 27740.

Availability of Data and Material

Data supporting the findings of this study are available from the corresponding author upon request.

Authors' Contributions

Conceived and designed the analysis: H.G.; K.Ç.; İ.Y.K; E.S.; H.B.; R.K.; U.T.

Collected the data: H.G.; K.Ç.; İ.Y.K

Contributed data or analysis tools: H.G.; K.Ç.; İ.Y.K; E.S.; H.B.; R.K.; U.T.

Performed the analysis: H.G.; E.S.; H.B.; R.K.; U.T.

Wrote the paper: H.G.; K.Ç.; İ.Y.K; E.S.; H.B.; R.K.; U.T.

Other contribution: H.G.; H.B.; R.K.; U.T.

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