



Examining the relationship between parental attachment styles and adolescent social anxiety: Implications for development and intervention

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ABSTRACT

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The primary objective of this study was to explore the significant contributors of different parental attachment styles in the development of adolescent social anxiety. A descriptive survey design was used with cross-sectional data collection. A multistage random sampling technique was employed to obtain a sample of 2000 adolescents (Boys = 969, Girls = 1031). The research instruments included a demographic profile, the Social Anxiety Scale for Adolescents, and the Parental Attachment Styles Scale. Descriptive statistics summarized the raw data. Inferential statistics, such as linear regression analyses, were used to analyze the findings according to the research objectives. Results indicated that parental attachment, across all its domains, significantly predicts social anxiety in adolescents. Furthermore, a secure attachment style is a negative predictor of social anxiety, whereas insecure parental attachment styles (Anxious-Resistant Attachment and Anxious-Avoidant Attachment) positively predict social anxiety among adolescents. The present study has several implications for stakeholders. For example, for adolescents, particularly in addressing the role of parental attachment in mitigating social anxiety. Recognizing that secure attachment styles negatively predict social anxiety, interventions can be designed to foster secure attachments between parents and adolescents, promoting open communication, trust, and emotional support. These efforts could help adolescents develop the self-confidence and coping skills necessary to handle social challenges more effectively. For adolescents in Pakistan, where family dynamics often play a crucial role in personal identity and social relationships, fostering secure attachment could significantly reduce the likelihood of social anxiety, ultimately improving their mental well-being and social functioning.

Contribution/Originality: This study provides critical insights to guide parents and children in fostering healthy relationships across different attachment stages. Based on the identified gaps in the literature, we hypothesize that all domains of parental attachment styles significantly predict adolescent social anxiety.

1. INTRODUCTION

Parenting is a complex concept with several intricate factors leading to significant variation among households. Cultural origin is one of the factors that influence family structure and child-rearing. Every parent has a unique

approach to interacting with and guiding their children (Kuppens & Ceulemans, 2019). Parenting is used to describe the typical variety of parents' attempts to discipline and socialize their children. It consists of several particular attitudes that affect the child's conduct, both individually and collectively, shaping their morals, values, and behaviors. As children grow older, parenting traits may still be evident in their actions and behaviors (Aslam et al., 2022; Derrick, Chen, van Leeuwen, Larivière, & Sugimoto, 2022). Attachment styles in parenting have a wealth of potential and are endlessly fascinating. The way children form attachments with their parents and other primary caregivers has a significant impact on their lives. It is almost universal for children to form attachments to their care providers, although not all do so positively or establish positive attachments in general. It greatly depends on how attentive and responsive the caregivers are to the child (Cassidy, Jones, & Shaver, 2013). Therefore, parental attachment styles serve as significant early-life psychological pathways that have a major impact on the development of different challenging behaviors, such as social anxiety.

According to Bowlby (1982), attachment operates on the principle of protecting the child from challenging situations. These attachment styles of parenting and significant others have been identified based on the strange situation procedures (Ainsworth, 1985). A secure attachment style suggests that the child actively explores the environment when separated from the attachment figure. Upon reunion, these children establish healthy connections with them again. They demonstrate appropriate and socially accepted behavior (Larose & Bernier, 2001). The anxious-avoidant child remains unable to explore the environment and exhibits crying when separated from attachment figures. They avoid or come close indirectly when reunited with them. They demonstrate a calm, unresponsive attitude to avoid separation and maintain proximity with attachment figures who reject them (Amjad & Tabbasam, 2024; Gagliardi, 2022). The anxious-resistant infants showed an inability to form a secure attachment base and became aggressive with attachment figures when reunited. These children push away their mothers and show anger. They are very sensitive, easily tempered, submissive, finicky, feeble, immature, or resistant to their attachment figures.

Parental attachment styles, which can be secure or insecure depending on parental behavior, have a significant influence on adolescents' lives because they serve as psychological pathways for either developing healthy individuals or impairing one's life, depending on the situation. All dimensions of parental attachment, such as secure attachment, anxious-avoidant attachment, and anxious-resistant attachment, influence the development of social anxiety in adolescents differently. Secure attachment acts as a barrier against the formation of social anxiety, whereas insecure attachments increase the likelihood of its occurrence. Therefore, it is necessary to explore these associations stepwise with all parental attachment styles. The role of a secure attachment style in protecting adolescents from developing social anxiety is essential. Children who feel strongly connected to their parents trust them to be present during their struggles. Those who are securely attached describe themselves positively, accept negative self-attributes, demonstrate a highly distinctive and integrated self-schema, and disclose very few inconsistencies (Mikulincer, 1995).

The secure individual's balanced and optimistic self-view, shaped by their parents' responsiveness and guidance, allows them to examine both their strengths and weaknesses. This coherent self-structure prevents them from being shocked by distress when they fall short of their ideal standards and consequently does not experience social anxiety (Amjad et al., 2025a). Different theories of anxiety development recommend that parental acceptance, control, and modeling of anxious conduct (Wood, McLeod, Sigman, Hwang, & Chu, 2003), as well as over-protection, lack of warmth, rejection, and lack of emotional support, are linked with children's anxiety manifestations (Lee & Mun, 2025). According to Bowlby (1982), children who experience attachment security have access to and respond to the accessibility and responsiveness of their parents or other attachment figures and find them as a safe haven at times of difficulty or distraction and, as a result, demonstrate less anxiety. Further, Kozan and Arslan (2022) reported that insecure attachment dimensions are significantly associated with severe social anxiety symptoms as compared to secure attachment. The second dimension of parental attachment styles, anxious-avoidant attachment, also serves as a significant psychological pathway toward social anxiety. The developmental pathways are intertwined, complex,

and somewhat challenging for adolescents who have not yet established secure attachments (Li, Du, & Long, 2019). Anxious-avoidant attachment, in which the caregiver regularly reacts insensitively to children's suffering, has been strongly and independently associated with social anxiety. These children perceive others as unreliable and untrustworthy, which causes them to become anxious whenever they interact with others in social situations. Li et al. (2019) discovered that social anxiety symptoms were predicted explicitly by attachment insecurities like avoidance. Because of their parents' persistent disregard, people with avoidant attachment styles often feel awkward around others and inferior to them, which can erode their self-worth and confidence. They frequently avoid establishing friendships or engaging in social events, as they tend to be highly sensitive to criticism and rejection. Similar findings were observed by Kozan and Arslan (2022), who demonstrated that college students' attachment insecurities were significant predictors of their level of social anxiety. The social anxiety aspects were also more prevalent among students who scored higher on attachment anxiety and avoidance. According to various theories of how social anxiety develops, overprotection, a lack of warmth, rejection, and emotional support (Lee & Mun, 2025), as well as parental acceptance, control, and modeling of anxious behavior, are all associated with children displaying anxiety symptoms (Wood et al., 2003).

The last dimension of parental attachment styles, anxious-resistant attachment, is also significantly associated with targeted challenging behaviors such as social anxiety manifestation. Anxious-resistant children exhibit extremely negative feelings to attract the attention of their inconsistently responding parents. These children fail to sustain the attention or care of their parents and always struggle to find ways to garner their caregivers' attention. Virtue (2003) indicated that individuals who want to make a good impression on others might seek endorsement and approval, as is the case with resistant children, which can make them anxious. In the attachment classification, John Bowlby (1982) also stressed the interaction between care providers and children in developing internal working models. Thus, students who had attachment figures that were insufficient to meet their needs might require approval in later adulthood, which may be a contributing factor to social anxiety (Beidel & Turner, 2007).

Furthermore, it is found that children with anxious-resistant attachment experience the caretakers' unexpected and inconsistent responses, which intensify feelings of abandonment (Cassidy & Berlin, 1994). Consequently, children with resistant attachment tend to become chronically vigilant, have limited environmental exploration, are less independent, and expend more effort to control their emotions when faced with stress, which may contribute to social anxiety (Bar-Haim, Dan, Eshel, & Sagi-Schwartz, 2007). Kozan and Hamarta (2017) studied the impact of attachment insecurity, including avoidance and resistance, on social anxiety in students from Turkey and found statistically significant relationships between the variables. Moreover, a systematic review examining the relationship between attachment styles and social anxiety identified attachment insecurity as a significant contributor to the emergence of social anxiety (Manning, Dickson, Palmier-Claus, Cunliffe, & Taylor, 2017). Similarly, one study indicated that socially anxious individuals are more likely to have an anxious-resistant attachment style (Conrad, Hahm, Koire, Pinder-Amaker, & Liu, 2021). In general, insensitive parenting and insecure attachment, where caregivers disregarded educating the child on how to regulate and cope with their stress, may be the root of the inability to engage in social situations appropriately among persons with social anxiety.

Despite the evidence regarding parental attachment styles in the development of social anxiety, no study has been conducted to explore this phenomenon in Pakistan to date. Therefore, to address this research gap, the present study was designed to identify a significant predictive relationship between attachment styles and social anxiety among adolescents in Pakistan. There is a pressing need to address issues related to parental attachment styles due to their profound consequences on adolescents. This is a critical study that will guide parents and children on how to build relationships during different attachment stages. Based on the gaps identified in the existing research, we hypothesize that all domains of parental attachment styles will significantly predict adolescent social anxiety.

1.1. Theoretical Framework

Our study is grounded in the Attachment Theory of Bowlby (1982) and further extended by Ainsworth (1985). It suggests that the quality of early relationships, particularly those with family caregivers, impacts a child's social, emotional, and cognitive development. According to this theory, attachment styles are established through early interactions with caregivers and influence responses to social situations throughout life. Attachment Theory categorizes these attachment styles as secure or insecure (anxious-resistant, anxious-avoidant, and disorganized), each shaping an individual's response to social environments differently. Insecure attachment, which often arises from inconsistent or unresponsive caregiving, may increase an adolescent's vulnerability to social anxiety, as these individuals lack the internalized security necessary to approach social interactions confidently. This theoretical perspective aligns well with our study, which seeks to understand how parental attachment styles relate to social anxiety among adolescents in Pakistan, as it suggests a mechanism through which parenting influences long-term emotional and psychological outcomes in offspring.

Attachment theory is particularly suited to explaining the relationship between parental attachment and adolescent social anxiety, as it highlights how insecure attachments, characterized by anxious or avoidant behaviors, predispose individuals to experience heightened levels of social fear and discomfort. Adolescents who have experienced insecure attachments may develop a heightened sensitivity to social rejection and criticism, as they lack the reassurance and confidence that typically stem from secure attachments. The theory's emphasis on the internal working model, the cognitive framework formed in early childhood that influences expectations of relationships, helps explain why insecurely attached adolescents may interpret social cues more negatively and fear negative judgment, thus leading to social anxiety. This theoretical grounding supports the study's aim of identifying the predictive role of specific attachment styles on adolescent social anxiety in Pakistan, an under-explored cultural context. The flow of the study diagram is presented in Figure 1.

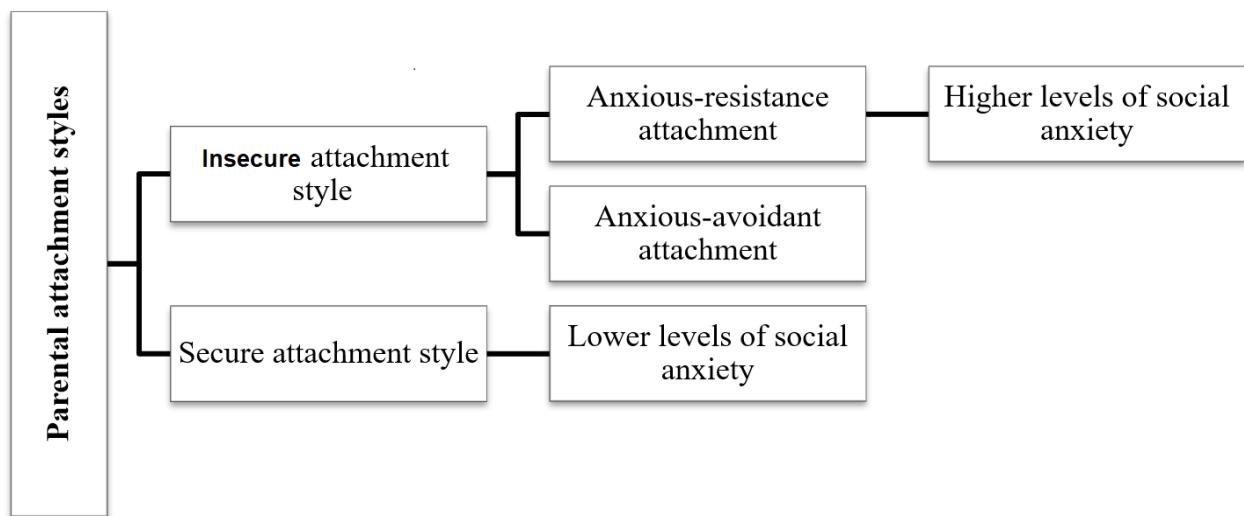


Figure 1. Flow of study diagram.

2. METHODOLOGY

2.1. Research Design

We focused on identifying predictive associations between parental attachment styles and social anxiety among adolescents. The literature supports that quantitative approaches and descriptive designs are best suited to examine causal relationships, such as those in the current study (Al-Ababneh, 2020; Mohajan, 2020; Siedlecki, 2020). Considering the broader implications of quantitative approaches, we followed a positivist research philosophy and a descriptive survey design with a cross-sectional plan for data collection.

2.2. Participants

This study was conducted in various cities within District Gujrat, Pakistan. The target population consisted of teenagers aged 12 to 19, with a mean age of 16. For data collection, we employed a multistage random sampling technique to select a representative sample of 2000 adolescents (boys = 48%, girls = 52%) from public-sector educational institutions (schools and colleges). Inclusion and exclusion criteria were established prior to sampling. Adolescents aged 12-19 years from District Gujrat were eligible, provided their parents permitted participation. Exclusion criteria included adolescents with physical disabilities or diagnosed psychological problems, as these factors could influence the variables under study and hinder participation. Additionally, children from single-parent households, homeless children, street children, and those from orphanages were not included in this study.

2.3. Data Collection

The following stages were followed for sample selection and data collection:

Stage 1: To identify the targeted areas of study across the cities of District Gujrat, we approached the District Education Office and the Director of Colleges, Gujrat, to obtain proper permission to visit and to acquire the list of all schools and colleges in the district. The District Education Office, Gujrat, provided a list of middle and high schools. Simultaneously, a list of colleges was obtained from the Director of Colleges, District Gujrat. According to the information obtained from these offices, there are a total of 521 public schools and colleges in the district, including 179 middle schools, 318 secondary schools, and 24 colleges.

Stage 2: After obtaining the lists of all 521 public schools and colleges, we applied systematic random sampling and selected every 10th school or college from the sampling frame. Out of the total of 521 schools and colleges, 52 institutes were selected randomly (School = 49; College = 3). We visited these 52 public sector institutes and obtained permission for research after explaining the study's objectives to the school and college authorities. Due to administrative concerns, 8 schools refused approval for the study. The remaining 44 schools and colleges that granted permission were followed up on. The researcher obtained the lists of students enrolled in these institutes. A total of 26,543 students were enrolled in these schools and colleges during the academic year 2024-25.

Stage 3: After collecting student lists from the selected public sector schools and colleges, these were considered sub-populations, and a third-stage overall sample was determined based on the study's eligibility criteria. Therefore, 6,480 adolescents aged between 12 and 19 years were identified. From these 6,480 students, 3,862 were excluded based on the exclusion criteria. A total of 2,618 students were eligible for the current study.

Stage 4: In the fourth stage, informed consent was obtained from the study's stakeholders. Overall, 2,000 students and their parents agreed to participate in this study, while the remaining 618 students were excluded due to their unwillingness or unavailability. The refusal rate for this study was 23%.

Stage 5: Finally, for data collection, 2000 participants (boys = 48% and girls = 52%) were briefed on the study objectives, procedures, and ethical considerations. Data collection was completed within three months with the assistance of two research assistants.

2.4. Assessment Measures

Following measures used for collecting data from the respondents.

A) Demographic Information

A demographic information sheet was created to gather relevant data about the study participants. Personal and family details were collected through questions regarding the participant's gender, age, birth order, family structure, father's occupation, mother's occupation, marital status, family system, number of siblings, family income, and type of residence. Education-related information was obtained through items that included the names of the institutions and the current classes in which the participants are enrolled. The demographic characteristics of the sample are presented in Table 1.

B) Parental Attachment Styles Scale (PASS)

Parental Attachment Styles Scale (PASS) consists of a 15-item scale with three subfactors: Secure Attachment (five items), Anxious-Avoidant Attachment (five items), and Anxious-Resistant Attachment (five items). It is used to assess adolescents' attachment patterns with their parents (Riaz & Bano, 2022). This is a four-point Likert scale in the Urdu language, ranging from 1 to 4. The Cronbach's alpha value of the entire scale was 0.88, whereas for the subscales, it was 0.87, 0.83, and 0.90, respectively. The scale indicated a good model fit ($CFI = 0.947$, $CMIN/DF = 2.735$, $RMSEA = 0.044$, $RMR = 0.029$, $GFI = 0.947$, $NFI = 0.946$, $TLI = 0.940$, $P < 0.01$).

C) Social Anxiety Scale for Adolescents (SAS-A)

The current study utilized the Social Anxiety Scale for Adolescents (Greca, 1998) in the Urdu language. The scale comprises 18 items, each rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree), indicating the degree to which the statement applies. A score of 50 or higher suggests significant levels of social anxiety, while a score of 36 or lower indicates lower levels of social anxiety among adolescents. The psychometric properties of the SAS-A, as established by Greca (1998), were high. The reported correlation coefficients ranged from 0.52 to 0.67 for SAS-A. The internal consistency of SAS-A was 0.80, and the test-retest reliability was deemed acceptable.

2.5. Procedure and Research Ethics

The Ethical Committee of the School Education Department, Government of Punjab, Pakistan, granted approval for this study on 21 October 2024 (Ref. No SED/KSR/AD-003452H). It adhered to the ethical principles required for conducting research on adolescents. The study's sample was selected using a multistage randomized sampling method. The sample comprised teenagers aged 12 to 19. The Advanced Studies and Research Board examined and approved the research (anonymized). The study followed several fundamental ethical values: respect for individuals' rights and self-worth, capability, accountability, and honesty (Schroeder, Chatfield, Singh, Chennells, & Herisone-Kelly, 2019). The sample was taken from government schools and colleges in the Gujarat district of Pakistan.

Before data collection, written consent was obtained from adolescents, their parents, and institutional authorities. The respondents were approached to gather data after receiving written consent. The respondents were described in the research. They were given thorough instructions and informed about the study's advantages. The respondents were also assured that their identities would remain confidential and that anonymity and confidentiality would be protected. In this study, only participants who provided their consent were included. Prior to administering the measurement scales, the researcher established rapport with the participants by providing a brief introduction, outlining their institutional affiliation, and explaining the objectives of the study. Data were collected using a scale booklet containing a demographic form, parental attachment style scale, and social anxiety scale for adolescents. At the end of data collection, the researcher thanked the respondents for their participation. After the research was completed, the researcher provided her email and other contact information in case of any questions about the study's findings. We acknowledge the respondents' support in data collection.

2.6. Data Analysis

The data was converted into a statistical format for interpretation and analyzed using SPSS (Version 27). Descriptive statistics aimed to represent the demographic characteristics of the sample. Linear regression analysis was employed to provide a clearer statistical overview of the sample data features in a summarized manner.

3. RESULTS

Table 1 provides a detailed description of the sample's demographic characteristics. The sample consisted of 1,031 (51.6%) girls and 969 (48.5%) boys. The majority of the participants are 19 (15.4%) and 13 (14.8%) years old, followed by 15 (12.7%), 16 (12.4%), and 12 (12.4%) years old. The highest proportion ($n = 467$, 23.4%) of adolescents are

illiterate, followed by 368 (18.4%) at the elementary level, 436 (21.8%) at the secondary level, 354 (17.7%) at the intermediate level, and 375 (18.8%) at the bachelor level. The table further reveals that the majority of respondents were students (n = 1,237, 69.9%), followed by workers (n = 419, 21.0%). Moreover, the highest proportion (n = 500, 25%) of adolescent fathers lived abroad, whereas 1,360 mothers are housewives, and 640 mothers have jobs. Most of the respondents had 0-3 (n = 748, 37.4%) siblings, with 428 (24%) being the last-born. The respondents with monthly incomes of 15,000-25,000, 25,000-35,000, 35,000-45,000, 45,000-55,000, and above 55,000 rupees numbered 252, 129, 508, 611, and 500, respectively. The respondents from nuclear and joint family systems accounted for 47.4% and 52.6%, respectively. Additionally, 52.6% (n = 1,052) of adolescents were from urban areas, while 47.4% (n = 948) were from rural areas.

Table 1. Demographic characteristics of the sample (N=2000).

Variables	F	%
Gender		
Girls	1031	51.6
Boys	969	48.5
Age (Years)		
12	247	12.4
13	296	14.8
14	215	10.8
15	253	12.7
16	247	12.4
17	196	9.8
18	238	11.9
19	308	15.4
Father's occupation		
Not any	252	12.6
Agriculture	371	18.6
Labor	257	12.9
Business	365	18.3
Job	255	12.8
Abroad	500	25
Mother's occupation		
Housewife	1360	68
Job	640	32
Number of siblings		
0-3	748	37.4
4-6	618	30.9
7-9	634	31.7
Birth order		
1 st	248	12.4
2 nd	390	19.5
3 rd	128	6.4
4 th	129	6.5
5 th	127	6.4
6 th	252	12.6
7 th	124	6.2
8 th	120	6
Last	428	24.1
Family income		
15000-25000	252	12.6
25000-35000	129	6.5
35000-45000	508	25.4
45000-55000	611	30.6
55000-above	500	25
Family system		
Nuclear	922	47.4
Joint	1078	52.6
Mode of residence		
Urban	1052	52.6
Rural	948	47.4

We applied linear regression analysis to test the hypothesis that all domains of parental attachment styles would significantly predict adolescent social anxiety. There are three subdomains of parental attachment styles: secure, anxious-avoidant, and anxious-resistant. The results are provided in Table 2.

Table 2. Summary of regression analysis on subdomains of parental attachment styles (secure attachment, anxious-avoidant attachment, anxious-resistant attachment) as predictors of social anxiety in adolescents (N = 2000).

Variables	R	R ²	Adjusted R ²	F	p
Secure attachment	-0.723	0.523	0.523	1313.328	0.000
Social anxiety					
Anxious-avoidant attachment	0.774	0.600	0.599	1793.474	0.000
Social anxiety					
Anxious-resistance attachment	0.836	0.699	0.699	2779.958	0.000
social anxiety					

Results in Table 2 indicated that all subdomains of parental attachment styles are significant predictors of social anxiety. The regression analysis ($R^2 = 0.523$, $F = 1313.328$, $p < 0.001$) confirmed that the secure attachment style is a significant predictor of social anxiety in adolescents, with 52% of the variation explained. Furthermore, the anxious-avoidant attachment style explained 60% of the variation ($R^2 = 0.600$, $F = 1793.474$, $p < 0.001$) in adolescents' social anxiety, whereas 69% of the variation in social anxiety is explained by the anxious-resistance attachment style ($R^2 = 0.699$, $F = 2779.958$, $p < 0.001$). Additionally, the significant p-value indicates that all subdomains of parental attachment styles significantly predict social anxiety in adolescents.

4. DISCUSSION

Every child has the fundamental right to grow up in a healthy and supportive environment. When children have very positive experiences in their early life and receive care, love, support, protection, warmth, etc., from their parents, they become healthy, productive, and helpful individuals later in life and then serve their communities as a whole. Conversely, individuals who grow up in hectic, chaotic, and unstable family conditions and experience adverse childhood experiences may face detrimental downstream consequences later in life. Ainsworth (1985) identified three styles of children's attachment to parents and significant others based on strange situation procedures: secure attachment, anxious-resistant attachment, and anxious-avoidant attachment, which influence behavioral patterns differently. The secure attachment style is among these patterns, while anxious-resistant and anxious-avoidant styles are categorized as insecure. Each attachment type impacts behavioral patterns differently. Therefore, it is important to investigate the role of parental attachment in various problematic behaviors. This study focused on how parental attachment styles influence social anxiety in adolescents.

Accordingly, the study's hypothesis examined whether parental attachment styles such as secure attachment, anxious-resistant attachment, and anxious-avoidant attachment would be significant predictors of social anxiety. The results of a linear regression analysis showed that all three of these subdomains of parental attachment styles are significantly associated with social anxiety in adolescents. Considering all attachment domains stepwise, findings indicated that the secure attachment style predicted social anxiety with 52% of the variance explained ($R^2 = 0.523$; $F = 1313.328$, $p < 0.001$). Furthermore, $R = -0.723$ represented a decrease in social anxiety associated with a secure attachment pattern. Adolescents constantly need to adapt to new experiences and the frequent changes occurring physically and socially as they go through their journey of self-discovery. They need to interact with the social world to establish their independence. They may experience anxiety due to these difficulties and may have less patience for change. As a result, it is difficult for them to control their behavior, which can sometimes be accompanied by inappropriate attitudes and behaviors. During this development, they must relate to their peers, family, and especially their parents. When adolescents perceive their caregivers as dependable and protective, and believe they can elicit care and proximity in times of need or distress—qualities of secure attachment—they become confident and develop high self-worth. These factors foster trust in others and provide the freedom to explore the external world. They

become active in social interactions to learn and explore new things rather than experiencing social anxiety (Kozan & Arslan, 2022).

Furthermore, securely attached individuals are very self-reliant. They believe in themselves and their abilities based on the trust they received from their parents. Due to their high self-efficacy and greater social influence, they are better able to initiate, build, and maintain interpersonal interactions, thereby reducing social anxiety symptoms (Goodwin, 2015). Moreover, adolescents have a secure attachment to their parents and successfully develop a positive concept of self, which has a direct bearing on psychological health. A healthy and balanced self-view enables people to examine their strengths and weaknesses, and this convincing self-structure prevents them from being shocked by disappointment (Mikulincer, 1995). The disappointments and failures are also linked to social anxiety because people fear being embarrassed by others, as their incompetence leads them to avoid social situations (Leigh & Clark, 2018).

Securely attached adolescents protect themselves from these experiences by acknowledging and appreciating their appropriate skills, as their parents and caregivers do. Some previous research supports the current study's findings and confirms that adolescents with stronger attachment security experience less social anxiety (Papini, Roggman, & Anderson, 1991). Similarly, Papini and Roggman (1992) conducted a study on sixth graders and found that having more security with parents was associated with less social anxiety at all periods. Another interesting study by Tamannaeifar and Sanatkarfar (2017) examined the relationship between attachment patterns and social anxiety in high school students and found that individuals securely attached to their parents had lower levels of social anxiety than respondents with insecure attachment patterns.

Furthermore, regarding the next attachment style, this study specified that the anxious-avoidant attachment pattern accounted for 60% of the variation in adolescents' social anxiety ($R^2 = 0.600$; $F = 1793.474$, $p < 0.001$), while the value of $R = 0.774$ indicated a positive predictive association between anxious-avoidant attachment and social anxiety. Some emotionally distant parents or caregivers showed less interest and adopted an anxious-avoidant or insecure attachment style toward their children. Conversely, the offspring of these parents or caregivers develop mistrust in fulfilling their parents' needs. They exhibit indifference toward them, whether absent or present, but feel anxious internally. They perceive their parents as cold, uncaring, rejecting, and sometimes punitive. As a result, they distance themselves from their parents to avoid rejection. This behavior of parents fosters feelings of worthlessness in the child, leading them to downplay their attachment tendencies and hide their distress to avoid unfavorable responses from a caregiver who might reject them. All these parental behaviors serve as an internal working model in their minds, which they also generalize to other social situations. They perceive the outer world as dangerous, rejecting, and insecure, similar to their home environment, and become anxious when facing it (Kerns & Brumariu, 2014).

It is interesting to note that Manassis (2008) proposed a similar link between avoidant attachment style and the development of anxiety. He also suggested that children with an avoidant attachment pattern, who are used to coping with their parents' rejection and disregard, may develop social phobia due to the fear of being humiliated or rejected by others as well. Furthermore, a high level of attachment avoidance is associated with intense self-criticism (Mikulincer, Shaver, & Pereg, 2003). Sometimes, avoidant children blame themselves for their parents' behaviors. They think that it is their failure and incompetence that causes them to be rejected and ignored by their parents. This low self-image also makes them anxious in other social situations because they fear making the same mistakes in front of other people and experiencing rejection (Murad, Ingle, & Assery, 2020). Because of these factors, it is anticipated that individuals with high levels of attachment avoidance are more likely to perceive social circumstances as threatening and anxiety-inducing. Similar research on attachment types and social anxiety was conducted by Erozkan (2009) to assess a non-clinical sample of Turkish college students with varied levels of social anxiety. This study reported a significant association between attachment styles and social anxiety, indicating that insecure attachment styles, including avoidant attachment, were positively related to social anxiety, with the strongest correlation observed in fearful-avoidant attachment. Another study supported the present findings by suggesting that

attachment-related anxiety contributes to the development of social anxiety. Further exploration of this association is necessary to develop appropriate intervention strategies (Read, Clark, Rock, & Coventry, 2018).

Lastly, this study demonstrated that the anxious-resistant domain of parental attachment styles also strongly predicted social anxiety in adolescents. Outcomes of linear regression revealed that anxious-resistant attachment styles were responsible for 69.9% of the variation in adolescents' social anxiety ($R^2 = 0.699$; $F = 2779.958$, $p < 0.001$), with a positive predictive association ($R = 0.836$) showing that this relationship increases social anxiety. Naturally, every child expects that their caregiver will be able to understand and respond to their verbal and nonverbal cues in a way that is reasonable, predictable, and consistent over time. Unfortunately, some parents fail to maintain their pattern of behavior appropriately. Consequently, the child suffers because sometimes, at the time of need, parents are available to their children, but other times, they are out of reach. The parents frequently alternate between being helpful and available, then suddenly disappear and become out of touch, leaving the child frustrated and confused. The risk is that children may develop an anxious, resistant attachment style. This pattern of behavior produces an emotional hunger that drains the youngster and is an unsatisfactory replacement for genuine love and nurturing. Hence, when the parent does not meet the child's emotional needs, the child may become clingy, desperate, or anxious around that parent (Bonab & Koohsar, 2011).

Additionally, children who have an anxious attachment style find it challenging to trust other people to be there for them in times of need, based on their negative experiences with parents or care providers. Because of their mistrust, individuals develop social anxiety and self-consciousness, which lead them to avoid social interactions (Fetzner, Teale, Sapach, Mulvogue, & Carleton, 2016; He, 2022). Bowlby (1973) and Bowlby (1982) assert that children's worries, such as social anxiety, can result from uncertainty regarding caregivers' availability, which raises the possibility of an anxious-resistant attachment pattern. Furthermore, it is believed that children with anxious-resistant attachments experience caregivers' unpredictable and irregular responses, which heighten their sense of abandonment, severely affecting their self-worth and reducing their activities (Cassidy & Berlin, 1994). Due to their limited environment exploration, reduced autonomy, and increased effort in emotion regulation when exposed to stressors, children with resistant attachment tend to develop chronic vigilance, which may contribute to social anxiety (Bar-Haim et al., 2007; Weinfield, Sroufe, & Egeland, 2000).

Similarly, Cassidy and Berlin (1994) highlighted that children's nervousness in social situations may result from their lack of confidence in the availability and presence of their attachment figures. Most experts in the field agree that, compared to avoidant attachment styles or general attachment fears, the anxious-resistant attachment pattern has a stronger association with the development of anxiety (Bowlby, 1973; Brumariu, 2015; Manassis, 2008). Similarly, Brumariu and Kerns (2008) conducted a long-term study to examine the association between parental attachment and the emergence of social anxiety. According to the study's findings, social anxiety in children was predicted by a resistant or ambivalent attachment pattern, and a higher ambivalent attachment was associated with a higher level of social anxiety. A different study by Öztürk and Mutlu (2010) examined the relationship between attachment styles and social anxiety. It found that individuals who were nervously, anxiously, and insecurely attached to their significant figures exhibited higher levels of social anxiety compared to those with secure attachments. Therefore, it is reasonable to hypothesize that parental attachment styles specifically secure attachment, anxious-avoidant attachment, and anxious-resistant attachment significantly predict adolescents' social anxiety.

The family or home environment, in the form of Parental Attachment Styles, is a field that requires extensive research at both national and international levels. Multidisciplinary approaches are essential to address these issues. Constructive solutions can be developed through collaboration among counselors, social services, health workers, security forces, and legal authorities. However, in examining the relationship between Parental Attachment Styles and social anxiety in adolescents, it was observed that there is a gap in understanding various factors leading to these negative parental child-rearing practices or the effects of these behaviors on adolescents. Additionally, limited research has been conducted to investigate the problems faced by victims. In the current study, social anxiety in

adolescents was measured; other psychological factors such as isolation, loneliness, self-confidence, motivation, social support, resilience, and self-identity or self-concept could also be explored. Future research should consider measuring these constructs within an experimental design. Finally, this study is based on cross-sectional data, and future researchers should aim to understand the implications of these variables over time using a longitudinal design.

5. CONCLUSION

The influence of positive or negative psychological pathways encompasses debates that clarify how creating a healthy family environment for our youth is important to prevent the development of many challenging behaviors. Similarly, parents and caregivers play a significant role in the development of adolescents. When they raise their children in a supportive, caring, and overall healthy family environment, they help their children feel secure and confident and better understand the meanings of life and their existence, encouraging them to engage in positive and healthy activities instead of maladaptive or challenging behaviors such as social anxiety, which can influence their entire life course. Conversely, some parents fail to effectively nurture their children, understand their needs, provide a supportive family environment, or display negative behaviors and emotions toward them. As a result, these children also struggle to understand how to deal with the outside world and various traumatic or demanding situations. These experiences have a strong negative impact on the physical and psychological health of adolescents and can lead to concerning and challenging behaviors.

5.1. Limitations

Although the current study makes inroads into the complex concept of family attachments and provides significant contributions, it also has a few limitations, such as the data being collected from adolescents, so the results may not represent other children. This limitation can be addressed by including other groups of children. We collected only quantitative data, which may not provide a deeper understanding of the phenomenon. This limitation can be addressed by integrating qualitative data as well.

5.2. Implications

The present study has several implications for stakeholders. For example, the study's findings are significant for adolescents, particularly in addressing the role of parental attachment in mitigating social anxiety. Recognizing that secure attachment styles negatively predict social anxiety, interventions can be designed to foster secure attachments between parents and adolescents, promoting open communication, trust, and emotional support. These efforts could help adolescents develop the self-confidence and coping skills necessary to handle social challenges more effectively. For adolescents in Pakistan, where family dynamics often play a crucial role in personal identity and social relationships, fostering secure attachment could significantly reduce the likelihood of social anxiety, ultimately improving their mental well-being and social functioning.

Our study also has research implications based on the current study's results. For example, the results underscore the need to explore the cultural dimensions of attachment theory and its effects on adolescent psychopathology in diverse cultural contexts. Since much of the existing literature is centered on Western populations, this study highlights the importance of examining attachment-related influences in non-Western settings, such as Pakistan, to better understand how cultural norms and parenting styles impact adolescent mental health. Future research could investigate how interventions tailored to specific cultural practices might further reduce social anxiety in adolescents. Additionally, longitudinal studies could explore how parental attachment impacts adolescent mental health over time, contributing to more targeted and culturally appropriate strategies to support mental health in different societies.

Our study had theoretical implications as well. We contributed to Attachment Theory by examining its applicability within a non-Western context, specifically among Pakistani adolescents. While much of the existing research on attachment and social anxiety has been conducted in the West, our study broadens the scope by exploring

these dynamics in a collectivist culture where family relationships are typically close-knit and central to social identity. By highlighting the predictive role of secure and insecure attachment styles on adolescent social anxiety, our findings contribute to a more detailed understanding of Attachment Theory, particularly in cultural contexts where interdependence is emphasized over individualism. This cultural perspective provides insights into how attachment processes may vary across different social and familial structures, thereby enriching Attachment Theory's explanatory power regarding adolescent psychopathology on a global scale.

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