



Prediction of Social Anxiety in Students Based on Personality Dimensions and Parenting Styles

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ABSTRACT

Objective: The present study aimed to predict students' social anxiety based on personality dimensions and parenting styles.

Methods and Materials: This research was descriptive-correlational and applied in terms of purpose. The statistical population included all male elementary school students (second stage) in District 2 of Tehran during the 2023–2024 academic year. A total of 384 students were selected using a cluster random sampling method. Data were collected using the NEO Personality Inventory, Baumrind's Parenting Styles Questionnaire, and the Spence Social Anxiety Scale. Data analysis was performed using Pearson correlation and stepwise linear regression methods.

Findings: The results showed a direct relationship between the conscientiousness personality dimension and students' social anxiety ($p < .001$) and an inverse relationship between the agreeableness personality dimension and students' social anxiety ($p < .05$). Additionally, a direct relationship was found between the authoritarian parenting style and students' social anxiety ($p < .001$). Regression analysis results indicated that the authoritarian parenting style and the conscientiousness personality trait could predict 18% of social anxiety in students ($p < .001$).

Conclusion: Therefore, attention to parenting styles and children's personality dimensions is crucial in understanding the occurrence of social anxiety.

Keywords: Social Anxiety, Personality Dimensions, Parenting Styles.

1. Introduction

According to the diagnostic criteria of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), social anxiety is defined as a marked and persistent fear of one or more social situations or performance settings in which the person may encounter unfamiliar people or be observed by others. In children, there must be evidence of the capacity to engage in age-appropriate social relationships, and the anxiety should occur when interacting with peers and not solely during interactions with adults. Social anxiety disorder is the third most common psychological disorder after major depression and alcohol abuse (Beigi Harchgani et al., 2023). Generally, phobias are the most prevalent disorders within the category of anxiety disorders. Epidemiological studies have reported the prevalence of social anxiety disorder across all ages and life stages to range from 4% to 13% in the general population. Many researchers associate social anxiety disorder with poor academic performance, relationship issues, and lower socioeconomic status. In general, social anxiety acts as a barrier, preventing the formation of social connections, as negative beliefs about oneself, shame, and embarrassment hinder any social interaction (Davila & Beck, 2012).

Various factors contribute to the development and severity of social anxiety in adolescents, including both genetic and environmental influences (Kajastus et al., 2024; Lievore, 2024; Mikaeili et al., 2024). One significant factor affecting this disorder is family and the styles of parental interaction. The family is one of the most crucial and foundational organizations that aid in a child's growth. Within the family, a child gains their first perspective on the surrounding world, develops a sense of existence, and learns to socialize, cooperate, show affection, and respect others to be accepted and achieve their goals. The family also introduces the child to cultural traditions, religious ceremonies, personal responsibilities, and the boundaries of rights and obligations (Diaz, 2015). Research findings in this area indicate that high academic success is associated with authoritative parenting styles. A large-scale study found that highly successful high school students with high grades had parents who used authoritative methods. In contrast, the lowest grades were associated with students who had authoritarian parents. Anola et al. demonstrated that parental styles are related to adolescents' academic achievement, showing that higher parental support and responsiveness are linked to greater academic success (Alsyabi et al., 2021).

Although environmental factors and parenting styles influence the development of social anxiety, understanding individuals' personality dimensions is crucial, as these traits likely affect personal functioning and even psychological disorders. Personality dimensions fall under personality trait theory, with various theorists striving to identify these traits in different ways, achieving significant success in extracting and defining them (Karimi, 2018). One of the most effective and comprehensive theories is the Five-Factor Model proposed by Costa and McCrae. According to this hierarchical model, personality has five main dimensions that can be broken down into lower-order traits. Neuroticism: Individuals with high neuroticism tend to experience negative emotions, such as emotional instability, shyness, guilt, pessimism, low self-esteem, and difficulty coping with stress. Extraversion: People with high extraversion are sociable, assertive, and prefer working with others. Openness to Experience: This dimension includes traits such as curiosity, active imagination, a preference for variety, and independence. These individuals are highly curious about their surroundings and constantly seek new experiences. Agreeableness: People high in agreeableness are patient, trusting, and considerate, respecting others' beliefs and rules (Ghasemi Ardakani et al., 2022). Conscientiousness: Highly conscientious individuals are reliable and responsible. The Five-Factor Model emphasizes the role of growth processes and different environmental conditions in developing personality traits, emphasizing everyday motivations and needs. The family's influence on personality development is particularly significant, and experts agree on its importance (Angelini, 2023).

Globally, more than 7% of people experience social anxiety. Anxiety resembles fear but differs in that fear is specific and has a concrete, identifiable source. Social anxiety disorder (social phobia) is one of the most common disorders among children and adolescents, often leading to poor academic performance and psychological issues, such as depression and substance abuse (Dolatkhah Koli, 2022). Given its high prevalence, social anxiety as an emotional disorder poses concerns about self-presentation and leads to avoidance behaviors in real or imagined social interactions, putting adolescents at risk of social immaturity and causing distress and withdrawal from relationships. Although social anxiety is typically diagnosed in late childhood or adolescence, there is limited research on its etiology, comorbid conditions, and outcomes in early childhood. The family is the first and most influential environment in which a child experiences human relationships, with early

childhood experiences within the family laying the foundation for the child's personality and influencing their behavioral characteristics (Haji Esfandiari, 2016).

Personality dimensions significantly impact students' psychological functioning and well-being. These dimensions lead to distinct patterns of thought, feeling, and behavior among students. Studies stated that personality is a combination of stable intrapersonal processes and traits that differentiate individuals. However, some dimensions make individuals appear similar at times, prompting psychologists to emphasize both individual differences and behavioral consistency. Some personality traits facilitate the formation and maintenance of warm relationships with others, while others influence behavior in both positive and negative ways (Castella et al., 2014).

Despite extensive research on social anxiety, studies on the relationship between students' social anxiety, personality dimensions, and parenting styles are limited. Given the increasing importance of this topic for both parents and psychologists, gaining more insight into these issues is essential. The results of this study provide significant implications for psychologists, parents, and students in schools, potentially contributing to the psychological well-being of society. Thus, the present study aimed to predict students' social anxiety based on personality dimensions and parenting styles.

2. Methods and Materials

2.1. Study Design and Participants

This study is applied in nature due to its objectives and descriptive-correlational based on its data collection method. The statistical population consisted of male elementary school students (second stage) in District 2 of Tehran during the 2023–2024 academic year and their parents. The sampling method employed in this research was multi-stage cluster random sampling. First, three elementary schools (second stage) were selected from District 2 of Tehran. Then, from each school, three classes per grade level were chosen, and 14 students from each class were randomly selected. The sample size was calculated to be 384 students using Cochran's formula. Participants were selected based on the following inclusion criteria: student and parental consent to participate in the research, the student's age between 10 and 12 years, and parents' ability to read and write. Exclusion criteria included invalid questionnaire completion, identified through repeated response patterns,

and incomplete questionnaires (failure to answer at least five questions).

The research was conducted by explaining the study's purpose and how to answer the questionnaires to the participating students. The researcher then administered the social anxiety and personality questionnaires to the students, who completed them themselves. The parenting styles questionnaire was given to the students to deliver to their parents for completion.

2.2. Measures

2.2.1. Anxiety

Spence Children's Anxiety Scale (SCAS-C) comprises 45 items, including one open-ended question for which the child provides a descriptive response. The scale has six subscales: Panic Attack and Agoraphobia (items 13, 21, 28, 30, 32, 34, 36, 37, 39), Separation Anxiety (items 5, 8, 12, 15, 16, 44), Fear of Physical Injury (items 2, 18, 23, 25, 33), Social Phobia (items 6, 7, 9, 10, 29, 35), Obsessive-Compulsive Disorder (items 14, 19, 27, 40, 41, 42), and Generalized Anxiety (items 1, 3, 4, 20, 22, 24). Responses are scored as follows: "Never" = 0, "Sometimes" = 1, "Often" = 2, and "Always" = 3. The convergent validity of the SCAS-C has been significantly correlated with the Revised Children's Manifest Anxiety Scale ($r = .71$). Discriminant validity was demonstrated through low correlations with the Children's Depression Inventory. The internal consistency reliability of the SCAS-C, measured by Cronbach's alpha, was .92, and test-retest reliability over six months was .60 (Azadi Dehbidi et al., 2015; Beigi Harchgani et al., 2023; Dolatkhah Koli, 2022; Haji Esfandiari, 2016). In this study, Cronbach's alpha for the SCAS-C was calculated to be .72.

2.2.2. Parenting Styles

This questionnaire is based on Baumrind's model and assesses parental interaction styles in four domains: permissive, authoritarian, authoritative, and neglectful. It consists of 30 statements describing parent-child interactions: 10 statements each for permissive, authoritarian, and authoritative styles. Statements 1, 6, 10, 13, 14, 17, 19, 21, 24, and 28 correspond to the permissive style; statements 2, 3, 7, 9, 12, 16, 18, 25, 26, and 29 to the authoritarian style; and statements 4, 5, 8, 11, 15, 20, 22, 23, 27, and 30 to the authoritative style. Each statement is rated on a five-point Likert scale: "Strongly Disagree,"

"Disagree," "Neutral," "Agree," and "Strongly Agree," scored from 0 to 4, respectively. Reliability, measured by test-retest method, was reported by Buri (1991) as follows: 81% for maternal permissiveness, 86% for maternal authoritarianism, 78% for maternal authoritativeness, 77% for paternal permissiveness, 85% for paternal authoritarianism, and 92% for paternal authoritativeness. Esfandiari (1995) confirmed content validity by consulting 10 experts in psychology and psychiatry, and reliability was assessed using a test-retest method after one week, yielding values of 69% for permissiveness, 77% for authoritarianism, and 73% for authoritativeness ([Dolatkhah Koli, 2022](#); [Seyed Moharami et al., 2019](#)). In this study, Cronbach's alpha values were .66 for authoritarianism, .61 for authoritativeness, and .62 for permissiveness.

2.2.3. Personality

NEO Five-Factor Inventory (NEO-FFI), developed by McCrae and Costa in 1985, assesses five major personality traits: Neuroticism (N), Extraversion (E), Openness to Experience (O), Agreeableness (A), and Conscientiousness (C) through 60 items. Responses are scored on a five-point Likert scale, ranging from "Strongly Agree" (1) to "Strongly Disagree" (5). McCrae and Costa (1989) tested the inventory on 208 American college students over three months, with reliability coefficients ranging from 75% to 83%. Long-term

reliability was assessed in a six-year study, yielding coefficients between 68% and 83% for Neuroticism, Extraversion, and Openness in both self-reports and partner reports ([Ghasemi Ardakani et al., 2022](#); [Razaghpoor & Hossein Zadeh, 2019](#); [Tolou Takmili Torabi et al., 2020](#)). In this study, Cronbach's alpha values were .66 for Neuroticism, .71 for Extraversion, .61 for Openness, .79 for Conscientiousness, and .71 for Agreeableness.

2.3. Data analysis

Data were analyzed using SPSS-27 software and stepwise linear regression.

3. Findings and Results

Data collection included 128 students from each of the fourth, fifth, and sixth grades, totaling 384 participants. Of these, 24% were 10 years old, 36% were 11 years old, and 40% were 12 years old. Additionally, 48.43% of the students lived with both parents, 32.03% lived with their mother, and 19.53% lived with their father. Moreover, 68.22% of the parents had a master's degree or higher, 26.82% had an associate or bachelor's degree, and 4.96% had a high school diploma or lower. [Table 1](#) presents the means, standard deviations, skewness, and kurtosis of the scores for personality, parenting styles, and social anxiety among the students.

Table 1

Descriptive Analysis of Collected Data

Variable	N	Mean	Standard Deviation	Kurtosis	Skewness
Social Anxiety	384	35.03	3.65	1.306	-0.522
Neuroticism	384	26.37	2.4	1.685	-0.662
Extraversion	384	25.87	1.72	0.499	-0.561
Openness to Experience	384	25.79	3.03	1.738	-0.899
Conscientiousness	384	29.28	2.29	0.883	-0.95
Agreeableness	384	28.83	2.69	-0.207	-0.265
Permissive/Neglectful	384	27.1	3.17	1.012	-1.438
Authoritarian	384	24.7	2.5	-0.376	0.039
Authoritative	384	25.67	2.22	-0.625	-0.3

Given the skewness and kurtosis values within the range of -2 to 2, all data follow a normal distribution, satisfying the assumption required for regression analysis. Additionally, the results showed that the Variance Inflation Factor (VIF) for all independent variables was less than 5, indicating no

multicollinearity among the independent and dependent variables. The Durbin-Watson statistic was calculated at 1.797, confirming the independence of errors, as it falls within the acceptable range of 1.5 to 2.5. [Table 2](#) shows the

Pearson correlation coefficients between personality traits, parenting styles, and social anxiety.

Table 2

Pearson Correlation Test

Variable	Social Anxiety
Neuroticism	0.057
Extraversion	0.027
Openness	-0.024
Conscientiousness	0.29**
Agreeableness	-0.126*
Authoritarian	0.34**
Authoritative	-0.065
Permissive/Neglectful	0.091

*p<0.05; **p<0.01

As shown in [Table 2](#), a significant positive relationship was observed between conscientiousness and social anxiety among students ($P < .001$). Additionally, a significant inverse relationship was found between agreeableness and social anxiety ($P < .05$). No significant relationships were detected between social anxiety and neuroticism,

extraversion, or openness. A significant positive relationship was also found between the authoritarian parenting style and social anxiety ($P < .001$), but no significant relationship was observed between social anxiety and the authoritative or permissive/neglectful parenting styles. [Table 3](#) presents the results of the stepwise linear regression analysis.

Table 3

Stepwise Regression Analysis

Model	Predictor Variables	R	R ²	Adjusted R ²	F	P	Durbin-Watson
1	Authoritarian Parenting Style	0.34	0.116	0.113	50.021	P < .001	1.797
2	Authoritarian Parenting Style, Conscientiousness Trait	0.432	0.187	0.182	43.737	P < .001	

In the first model, the authoritarian parenting style accounted for 11.6% of the variance in social anxiety. In the second model, the addition of conscientiousness increased

the explained variance to 18.7%, with no other personality traits or parenting styles entering the regression equation. Both models had a significant F-value ($P < .001$).

Table 4

Regression Coefficients for Independent Variables in Model 2

Predictor Variables	B	SE	Beta	t	P
Constant	10.953	2.646		4.14	P < .001
Authoritarian Parenting	0.47	0.068	0.322	6.942	P < .001
Conscientiousness Trait	0.426	0.074	0.267	5.765	P < .001

As shown in [Table 4](#), the beta coefficients for both variables in the model are significant. Thus, the authoritarian parenting style and the conscientiousness trait can predict social anxiety in students ($P < .001$).

4. Discussion and Conclusion

This study aimed to examine the relationship between parenting styles, personality traits, and social anxiety in

students. The results from Pearson correlation analysis indicated significant relationships between the personality traits of conscientiousness and agreeableness with social anxiety. Conscientiousness was directly related to social anxiety, while agreeableness showed an inverse relationship. No significant relationships were found between social anxiety and the other three personality traits: neuroticism, extraversion, and openness to experience. The agreeableness trait indicates a higher degree of patience, tolerance,

friendliness, and gentleness. High levels of patience and tolerance are generally associated with lower anxiety levels. Patient individuals typically experience anxiety in a normative manner and are not easily disrupted by anxiety in situations requiring patience (Azadi Dehbidi et al., 2015). Furthermore, agreeable individuals, due to their patience and gentleness, are often well-suited for providing explanations and guidance in social situations, experiencing normative anxiety levels and approaching social situations with optimism and friendliness (Tolou Takmili Torabi et al., 2020). Thus, adolescents with higher agreeableness traits tend to experience less social anxiety due to their higher tolerance and friendly disposition.

On the other hand, conscientiousness is associated with greater responsibility and activity. Traits such as orderliness and perfectionistic thinking are characteristic of conscientious individuals and are linked to higher anxiety levels. Conscientious individuals often feel intense social anxiety when required to perform tasks in front of others, such as giving a presentation, as they feel responsible for doing it perfectly. This mental preoccupation causes severe anxiety leading up to the event (Razaghpoor & Hossein Zadeh, 2019). Therefore, individuals with high conscientiousness traits generally experience higher social anxiety.

Pearson correlation analysis also revealed that the only parenting style significantly related to social anxiety was the authoritarian style, which had a direct relationship. No significant relationships were observed between social anxiety and the permissive/neglectful or authoritative (rational) styles. Adolescents raised under authoritarian parenting are often highly controlled by their parents. Authoritarian parents emphasize strict obedience and rarely value their child's independence. They impose numerous rules, and non-compliance is met with punishment (Aslami, 2018). Adolescents from such families often depend on their parents for decision-making and struggle to act independently in social settings, experiencing severe anxiety when required to present or perform socially. These adolescents may have low self-esteem and fear punishment for mistakes, contributing to higher anxiety in social situations where they feel they are being observed.

Stepwise linear regression analysis further demonstrated that authoritarian parenting and conscientiousness had significant direct relationships with social anxiety. Together, these factors explained 18% of the variance in social anxiety among students. According to personality pattern theory in explaining social anxiety, everyone experiences anxiety to

some extent, but personality plays a key role in determining an individual's response to anxiety. Rosman and Freeman (1974) described Type A personalities, characterized by competitiveness, responsibility, punctuality, intense activity, and impatience during downtime, as being more prone to anxiety. Therefore, conscientious individuals tend to experience higher levels of anxiety, including social anxiety (Dolatkhah Koli, 2022). Conscientious adolescents often feel a strong sense of responsibility to be flawless in social situations, leading to increased social anxiety. Furthermore, those raised with authoritarian parenting may develop higher conscientiousness due to experiencing punishment for irresponsibility from a young age (Seyed Moharami et al., 2019). Consequently, individuals raised under authoritarian parenting are more fearful of making mistakes, especially in social gatherings, which increases their social anxiety.

5. Limitations & Suggestions

This study had several limitations. Some students may have been influenced by mood, anxiety, or other factors when answering questions, potentially affecting response accuracy. As the data were collected via self-report questionnaires, participants may have overestimated or underestimated their personality traits, parenting styles, and social anxiety levels, impacting the validity of responses. The study focused on male elementary students (second stage) in District 2 of Tehran, which may limit the generalizability of the findings. Caution should be exercised when generalizing the results to female students. Parental education levels and students' living arrangements (with both parents or one parent) could influence parenting styles and child anxiety, but these factors were not examined in this study.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. Each

participant received an informed consent form to understand the study's objectives.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

All authors equally contributed in this article.

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