



Association between social anxiety and sociodemographic characteristics among Middle School Students

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Abstract

Background: The physical and mental well-being of adolescents is significantly shaped by the world around them. The influence of their environment, the attitudes of their families, and the dynamics of friendships all play a crucial role in this developmental stage. A study aims to determine the association between social anxiety and sociodemographic characteristics among middle school students.

Method: The descriptive design (a cross-sectional study) was used. The study sample size was 398 students from various public and private schools who participated in the Directorate of Education of Al-Najaf. The schools were selected using a simple random sample method, and the students using a systematic random sample method. Data were collected through a questionnaire measuring the association between social anxiety and students, and a questionnaire measuring social anxiety among students was used. The study period extended from November 10, 2024, to January 20, 2025.

Results: The student population is evenly split between 50% males and 50% females, with over half (58.6%) aged 12-14 and an average age of 14.3 years. A large majority (91.7%) attend public schools, and most identify as middle-born among siblings (48.2%). There is no significant association between students' age and social anxiety levels ($r_s = 0.017$, $p = 0.740$) or income groups ($\chi^2 = 1.373$, $p = 0.503$). Social anxiety perceptions do not significantly differ by grade level ($p = 0.082$). However, a significant difference is found among birth order groups ($\chi^2 = 7.565$, $p = 0.023$), with youngest children reporting higher anxiety (mean rank= 218.33) than middle (199.33) and oldest (174.33). Differences in social anxiety by sex and school type are not significant ($z = -0.895$, $p = 0.371$; $z = 1.777$, $p = 0.076$). Extended families show higher social

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anxiety than nuclear families ($z = -2.948$, $p = 0.003$; mean rank: extended = 221.67, nuclear = 186.10).

Conclusions: Relationship exists between social anxiety and gender, with females showing higher levels due to greater emotional sensitivity, even in simple situations. Students from extended families reported more social anxiety than those from nuclear families, likely due to less stability and comfort. Lastly, younger children displayed more social anxiety than older students, as they are often more sensitive and require more attention

Keywords: Social Anxiety, Middle School Students, Sociodemographic

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العلاقة بين القلق الاجتماعي والخصائص الاجتماعية والديموغرافية لدى طلاب المرحلة المتوسطة

ملخص البحث:

الخلفية: تتأثر الصحة البدنية والنفسية للمراهقين بشكل كبير بالعالم المحيط بهم. تلعب البيئة المحيطة، ومواقف العائلة، وديناميكيات الصداقات دورًا حاسمًا في هذه المرحلة التطورية. تهدف دراسة إلى تحديد العلاقة بين القلق الاجتماعي والخصائص الاجتماعية والديموغرافية بين طلاب المدارس المتوسطة. **الطريقة:** تم استخدام التصميم الوصفي (دراسة مقطعية). بلغ حجم عينة الدراسة ٣٩٨ طالبًا من مختلف المدارس الحكومية والخاصة الذين شاركوا في مديرية تربية النجف. تم اختيار المدارس باستخدام طريقة

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العينة العشوائية البسيطة، والطلاب باستخدام طريقة العينة العشوائية المنتظمة. تم جمع البيانات باستخدام استبيان لقياس العلاقة بين القلق الاجتماعي والطلاب، بالإضافة إلى استبيان لقياس القلق الاجتماعي بين الطلاب. امتدت فترة الدراسة من ١٠ نوفمبر ٢٠٢٤ إلى ٢٠ يناير ٢٠٢٥.

النتائج: توزع الطلاب بالتساوي بين الذكور (٥٠٪) والإناث (٥٠٪)، حيث أن أكثر من نصفهم (٥٨.٦٪) تتراوح أعمارهم بين ١٢ و ١٤ عامًا، وكان متوسط العمر ١٤.٣ سنة. الغالبية العظمى (٩١.٧٪) يدرسون في مدارس حكومية، ومعظمهم يُعرفون أنفسهم بأنهم أبناء متوسطو الترتيب بين الإخوة (٤٨.٢٪). لم تكن هناك علاقة ذات دلالة إحصائية بين عمر الطلاب ومستويات القلق الاجتماعي ($\chi^2 = 0.0017$, $p = 0.940$) أو فئات الدخل ($\chi^2 = 0.373$, $p = 0.83$). كما لم تختلف تصورات القلق الاجتماعي بشكل كبير حسب المرحلة الدراسية ($p = 0.082$). ومع ذلك، وُجد اختلاف كبير بين مجموعات ترتيب الميلاد ($\chi^2 = 7.065$, $p = 0.023$)، حيث أظهر الأطفال الأصغر سنًا قلقًا أعلى (متوسط الرتبة = ٢١٨.٣٣) مقارنة بالمتوسطين (١٩٩.٣٣) والأكبر سنًا (١٧٤.٣٣). أما الاختلافات في القلق الاجتماعي حسب الجنس ونوع المدرسة فكانت غير ذات دلالة إحصائية ($Z = -0.895$, $p = 0.371$; $Z = 1.777$, $p = 0.076$). أظهرت العائلات الممتدة مستويات قلق اجتماعي أعلى مقارنة بالعائلات النووية ($Z = -2.948$, $p = 0.003$ ؛ متوسط الرتبة: العائلات الممتدة = ٢٢١.٦٧، العائلات النووية = ١٨٦.١٠).

الاستنتاجات: توجد علاقة بين القلق الاجتماعي والجنس، حيث أظهرت الإناث مستويات أعلى من القلق بسبب زيادة الحساسية العاطفية، حتى في المواقف البسيطة. أبلغ الطلاب من العائلات الممتدة عن مستويات قلق اجتماعي أعلى من أولئك من العائلات النووية، ويُرجح أن ذلك بسبب قلة الاستقرار والراحة. أخيرًا، أظهر الأطفال الأصغر سنًا قلقًا اجتماعيًا أعلى من الطلاب الأكبر سنًا، حيث إنهم غالبًا ما يكونون أكثر حساسية ويتطلبون اهتمامًا أكبر.

الكلمات المفتاحية: القلق الاجتماعي، طلاب المدارس المتوسطة، العوامل الاجتماعية والديموغرافية.

Introduction

Anxiety has been a problem for people throughout history. However, until the 19th and 20th centuries, psychologists and psychiatrists were unable to precisely identify or distinguish anxiety from fear as a distinct mental illness ⁽¹⁾. In 1895, Freud coined the term "anxiety neurosis" I refer to this syndrome as 'anxiety neurosis' as all of its elements can be clustered around the primary symptom of anxiety, stated Freud ⁽²⁾.

Prominent anxiety, panic attacks, phobias, obsessions, or compulsions are some symptoms of the extreme fear of being away from one's home or

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loved ones, parents, or caregivers is known as separation anxiety disorder before the age of eighteen, it happens when something is no longer developmentally acceptable ⁽³⁾.

A prominent and ongoing dread of being criticized or mocked by others characterizes social anxiety disorder (SAD), as defined by the American Psychiatric Association (APA). An intense fear of being evaluated by others in social situations is the defining feature of social anxiety (SA), a common human feeling that we label as SAD or social phobia when it escalates to a level of severity that hinders one's functioning ^(4,5).

According to studies, untreated SAD during infancy and adolescence tends to remain, with beginning before the age of 11 increasing the likelihood of persistence into adulthood SAD tends to have a waxing and waning course rather than a stable one, making it one of the more chronic and persistent mental diseases throughout life ^(6,7).

Adolescence is an important stage of development characterized by transformations in the biological, emotional, cognitive, and social domains ⁽⁸⁻¹⁰⁾.

Adolescents represent the primary demographic in which social anxiety disorders develop, with 90% of cases manifesting by the age of 23 ⁽¹¹⁻¹³⁾. The school and various educational institutions are critical cultural forces in shaping and modifying student behavior ^(14,15). The teacher's role in the learning process is crucial, as they are expected to guide and instruct students based on their individual abilities ⁽¹⁶⁾.

Research indicates that two-thirds of secondary school students aged 15 to 17 exhibit symptoms of social anxiety. Furthermore, existing literature has identified significant differences in social anxiety that correlate with students' sex ^(17,18), as well as variations according to their academic class level ⁽¹⁹⁾. The study aimed to determine the association between social anxiety and sociodemographic characteristics among Iraqi middle school students.

2. Methodology

2.1 Design of the Study:

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A descriptive cross-sectional study design was employed for this research. Descriptive research offers important insights into the relationships between variables within a natural environment. The research took place from November 10, 2024, to January 20, 2025.

2.2. Settings of the Study

The study was conducted for the period from November 10th, 2024 to January 20, 2025 in middle schools at Najaf City, Iraq.

2.3. Sample of the Study

The study included a simple random sample method involves selecting study participants. The target community size for the study was 81926 students, distributed over 188 schools, 178 government schools, and 10 private schools. The sample size estimation was done by using an equation of a cross-sectional study to determine the number of samples to be recruited for the study ⁽²⁰⁾. The final sample size was 396 participants.

2.4. Study Instrument:

2.4.1 Part I: The study instrument includes the socio-demographic characteristics of the student which include gender, age, grade, type of study, family economic status, family type and birth order of the student.

2.4.2 Part II: Arabic version of Social Anxiety Scale (SAS) ⁽²¹⁾. SAS were measured using a five-point Likert type scale, with 0 representing never and 4 representing always, the dependability of SAS's Cronbach's alpha was 0.90, while the alpha coefficients for the three subscales were: Anxiety related to performance (0.84), interactions (0.81), and evaluation (0.78) ⁽²²⁾.

2.6. Data Collection and Analysis:

The statistical package for social science (IBM), version 26, was utilized for coding and analyzing the data. The distribution of data was not normal. Consequently, non-parametric statistical methods were applied. The Spearman's rho correlation, Mann-Whitney U-Test, and Kruskal-Wallis Test were employed.

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Results:

Table 1. Distribution of Students According to their Socio-demographic Characteristics (N = 396)

List	Characteristics	f	%	
1	Sex	Male	198	50
		Female	198	50
		Total	396	100
2	Age (year) M±SD= 14.3 ± 1.2	12 – 14	232	58.6
		15 – 17	164	41.4
		Total	396	100
3	School grade	First	132	33.3
		Second	132	33.3
		Third	132	33.3
		Total	396	100
4	School system	Private	33	8.3
		Public	362	91.7
		Total	396	100
5	Perceived monthly income	Poor	70	17.7
		Moderate	263	66.4
		Good	63	15.9
		Total	396	100

SD: Standard deviation

The descriptive analysis in table 3-1 shows that the students' sex is equally distributed between males and females, with 50% each, ensuring sex parity in the study. Regarding age, more than half of students (58.6%) fall within the younger age group of 12-14 years, with the mean age being 14.3 years, indicating that the sample predominantly includes early adolescents. The school grade for students refers that distribution across grades is equal, with

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each grade (first, second, and third) comprising exactly one-third (33.3%) of the sample. This balance minimizes bias related to educational level. The school system reveals a significant majority (91.7%) of the students attend public schools (Governmental), while only 8.3% are enrolled in private schools.

The perceived monthly income refers that student perceive their monthly income as moderate (66.4%), while a smaller proportion report poor (17.7%) or good (15.9%) income levels. Concerning family type, the highest percentage among students (65.2%) belong to nuclear families, with fewer (34.9%) coming from extended families, reflecting a societal trend toward nuclear family structures.

The birth order reveals that nearly half (48.2%) of the students identify as middle-born, while the youngest (27.5%) and oldest (24.3%) siblings are less represented. This suggests a relatively even distribution among birth order categories but with a notable emphasis on middle-born individuals

Table 2. Assessment of Social Anxiety among Students

List	Characteristics	f	%
6	Nuclear	258	65.2
	Extended	138	34.9
	Total	396	100
7	Youngest	109	27.5
	Middle	191	48.2
	Oldest	96	24.3
	Total	396	100

Social anxiety	f	%	M	SD	Ass.
Not clinical	56	14.1	38.02	14.13	Mild

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Mild	219	55.3			
Moderate	112	28.3			
Severe	9	2.3			
Total	396	100			

Not clinical= 0 – 22, Mild= 22.1 – 44, Moderate= 44.1 – 66, Severe= 66.1 – 88

The findings in table (2) reveal that 55.3% of students report mild social anxiety, while 28.3% experience moderate anxiety, and 2.3% report severe social anxiety. The mean score for social anxiety is 38.02 (SD = 14.130), indicating that the average student experiences mild social anxiety.

Table 3: Association Social Anxiety with Students' Age (N=396)

Variable	Age (year)	Mean	SD	r^s	Sig
Social Anxiety	12 – 14	37.63	13.855	.017	.740
	15 – 17	38.57	14.536		

SD: Standard deviation, r^s : Spearman Correlation, Sig: Significance

The Table (3) demonstrates no significant association between students' age and their levels of social anxiety. The correlation coefficients for variable (social anxiety: $r_s = 0.017$, $p = 0.740$) indicate an extremely weak and statistically insignificant relationship.

Table 4: Association Social Anxiety with family income, Students' School Grade, and birth order (N=396)

Social Anxiety	Groups	N	Mean Rank	Kruskal-Wallis	df	Sig.
Income	Poor	70	193.01	1.373	2	.503
	Moderate	263	203.04			
	Good	63	185.63			
	Total	396				
Grade	First	132	188.97	4.999	2	.082
	Second	132	216.67			

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	Third	132	189.85			
	Total	396				
Birth order	Youngest	109	218.33	7.565	2	.023
	Middle	191	199.33			
	Oldest	96	174.33			
	Total	396				

N: Number, df: Degree of freedom, Sig: Significance

The table (4) presents that the Kruskal-Wallis test also shows no statistically significant difference among the income groups ($\chi^2 = 1.373$, $df = 2$, $p = 0.503$).

The Table (4) shows that Kruskal-Wallis's test yielded a non-significant result for social anxiety ($p = 0.082$), indicating that students' perceptions of their levels of social anxiety do not significantly differ across grade levels.

Table (4) evaluates the association between students' birth order and social anxiety levels. Social anxiety, the Kruskal-Wallis test reveals a statistically significant difference among the birth order groups ($\chi^2 = 7.565$, $p = 0.023$). The youngest children report higher levels of social anxiety (mean rank= 218.33) compared to their middle (mean rank= 199.33) and oldest children (mean rank= 174.33).

Table (5): Association Social Anxiety with Students with School System and Family Type (N=396)

Variable	Groups	N	Mean Rank	Mann-Whitney	z	Sig.
Sex	Male	198	208.71	17579.500	1.777	.076
	Female	198	188.29			
System	Private	33	215.58	5426.000	-.895	.371
	Public	363	196.95			
Family	Nuclear	258	186.10	14604.000	2.948	.003
	Extended	138	221.67			

N: Number, z: z score, Sig: Significance

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The table (5) depicts that Mann-Whitney test indicates the difference between sex and private and public-school students is not statistically significant with social anxiety, ($z = -0.895$, $p = 0.371$, $z = 1.777$, $p = .076$).

The table (5) social anxiety, a statistically significant difference is observed between the two-family types ($z = -2.948$, $p = 0.003$). Students from extended families have a higher mean rank (221.67) compared to students from nuclear families (186.10), indicating that those from extended families experience higher levels of social anxiety.

Discussions

Results of the social anxiety assessment among students showed that 55.3% suffer from mild social anxiety, while (28.3%) of students suffer from moderate anxiety and (2.3%) from severe anxiety. The average score of social anxiety was (38.02) meaning that the average student suffers from mild social anxiety, when searching in previous studies.

A study similar to our study was found in the percentage of social anxiety, it was conducted in Erbil Governorate in Iraq on the prevalence of social anxiety among high school students, the results were (83.3%) of the total sample have social anxiety ⁽²³⁾. These results may stem from a student's fear of embarrassment in front of the teacher or the possibility of rejection in social situations. Many students experience emotional maladjustment, which can manifest in activities like presenting a specific topic to classmates or writing on the blackboard while being observed by their peers and the teacher ^(24,25). Additionally, this fear may be compounded by the aggressive behavior exhibited by students towards themselves, one another, or their belongings ⁽²⁶⁾.

Results of (3) the social anxiety, and the student's age indicate that there is no significant relationship between the students' age and levels of social anxiety. Based on a study conducted on Table.

The results of the table (4) of the relationship between social anxiety with the school Grade showed that it is not statistically significant for social anxiety. These results are reinforced by a comparative study conducted on individual differences in social anxiety trajectories among middle school students, which indicates that levels of social anxiety do not significantly across school grade ⁽²⁷⁾. This is because the ages of the students are close during the

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middle stage and the age group is one, which is the adolescent group, whose thinking is somewhat similar, and mixing among them within the school enhances the similarity of thinking in this age group table (4).

Regarding of the table (4) on the relationship between social anxiety and perceived monthly income that there is no statistically significant relationship between the monthly income groups. Also, with regard to social anxiety, there are no statistically significant differences. Agreed with a study conducted on The Impact of the Teacher-Student Relationship on Students' Educational Expectations ⁽²⁸⁾. This is because students in this age group do not have sufficient awareness about bearing responsibility for financial spending, how the money was obtained and where this money is spent because they are completely dependent on parents only to obtain it and without awareness of where it came from and how. table (4).

The relationship between social anxiety and student's birth order showed that there is significant difference between birth order groups regarding social anxiety, the highest percentage was among younger children, unlike middle-aged and older children. Based on a study conducted on birth order and gender differences in the prevalence of anxiety among adolescents ⁽²⁹⁾. The reason is due to the age rule in this age group. Also, younger children are sensitive to situations, no matter how simple they are, so they need more care and attention from the teacher and from the parents. Also, younger children are the center of parental attention. In other words, they are more susceptible to social anxiety table (4).

The table (5) Relationship between social anxiety and the school system indicate that there is a statistically insignificant difference between public schools and private schools.

The table (5) of the relationship between social anxiety and family type showed that there was a statistically significant difference was observed between the type of family, and the results of students from extended families enjoyed a higher average rank compared to students from nuclear families based on a study conducted on family and high-risk studies of social anxiety disorder ⁽³⁰⁾. The reason for this is that the large family is intertwined and at the same time fragmented, so the appropriate environment for students in large families is not available in terms of study, so the means of comfort and sleep are reduced for them, which leads to their anxiety, and the attention from their parents is reduced because they rely on consulting the elders in the house, and

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the privacy of these students is exposed, meaning that whenever the student worsens or slips in a certain matter, they inform the parents about it, and whenever he gets a poor result in school, his matter reaches the parents to deal with him in their usual manner. Within the family, all of this increases their social anxiety table (5).

Conclusions

Most students (91.7%) attended public schools due to their families' moderate economic status. Many came from nuclear families (65.2%) influenced by population inflation and marital demands. Over half (55.3%) of students experience mild social anxiety, stemming from embarrassment around teachers and peers, along with excessive shyness. A notable relationship exists between social anxiety and gender, with females showing higher levels due to greater emotional sensitivity, even in simple situations ⁽³¹⁾. Students from extended families reported more social anxiety than those from nuclear families, likely due to less stability and comfort. Lastly, younger children displayed more social anxiety than older students, as they are often more sensitive and require more attention.

Recommendation

1. Activating the role of the psychological counselor in all schools and increasing their numbers to provide guidance and psychological support to students and how to deal effectively with each other, especially students who suffer from social anxiety.
2. Developing social communication skills among teachers through participation in workshops, seminars, and courses in schools and departments of education directorates to improve the relationship between teacher and student.
3. Conduct more future research on increasing the number of student samples and a larger number of schools, including wide geographical areas, on the relationship between teacher and student and its impact on social anxiety to generalize the results.

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