

Prevalence and Factors Associated with Anxiety among School Students

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Abstract

Anxiety is a feeling of uneasiness or distress that results from negatively interpreting a situation. It is necessary to explore the extent and related factors of anxiety in students as it is one of the most prevalent childhood disorders. When a student is anxious, their working memory is affected and they are unable to learn. The cross-sectional descriptive study was conducted to assess the prevalence and associated factors with anxiety among school students at Kashi Noble Academy in Siddharthanagar Municipality -12, Bhairahawa, Rupandehi. Non-probability purposive sampling was used to collect data from 187 students. The data was collected using a structured self-administered questionnaire and the Modified Hamilton Anxiety Rating Scale. The data were analyzed using descriptive and inferential statistics; mainly frequency, percentage, mean, and chi-square. The findings of the study showed that out of 187 students, 52.4% were male and 47.6% female, 76.5% had mild anxiety, 18.7% had mild to moderate anxiety and 4.8 % had moderate to severe anxiety. There was a significant association between the prevalence of anxiety and age ($p=0.033$), sex ($\chi^2=10.41$, $df= 2$, $p=0.006$), and type of family ($\chi^2=4.94$, $df= 1$, $p=0.026$). Based on the findings of the study, anxiety is more common among female students, students living with nuclear families, and students who are under a lot of academic pressure. The study advised making the required lifestyle changes, however, the gender of the participants could not be changed. As a result, to become mentally healthy, kids should adopt healthy lifestyle patterns (enough rest, sleep, and exercise), and schools should engage in anxiety prevention programs and encourage students to participate in extracurricular activities.

Keywords: Anxiety, Prevalence, Factors, School students

Introduction

Everybody has anxiety in day-to-day life. Anxiety is felt when we face a certain event in life like facing an interview or appearing in the examination. Anxiety is an emotional state arising in the situation of impending danger and manifested in the expectation of unfavorable events. Anxiety manifests itself as a feeling of helplessness, uncertainty, lack of sufficient strength in the face of external factors, and exaggeration of their potency and strength (Rasquinha, 2012).

Academic anxiety is not a bad thing. A high level of anxiety indeed interferes with concentration and memory, which are critical for academic success. However, without any anxiety, most of us would lack the motivation to study for exams, write papers, or do daily homework. In our society, academic achievement is considered a key criterion to judge one's total potentialities and capacities. Hence, academic achievement occupies a very important place in education as well as in the learning process. If academic anxiety is not properly addressed, it can have many serious and long-lasting consequences, such as causing a student to procrastinate, perform poorly on schoolwork, fail classes, and withdraw from socializing with peers or pursuing activities that interest them (Khemka & Rathod, 2016).

An anxiety disorder is a serious mental illness. For people with anxiety disorders, worry and fear are constant and overwhelming and can be crippling. A study was conducted to determine the prevalence of anxiety disorders globally. A systematic review and meta-regression were conducted to find the prevalence of anxiety and to identify the factors that can influence these estimates. The current prevalence of anxiety is estimated to range between 0.9% and 28.3%, and the past year's prevalence ranged between 2.4% and 29.8%. Among the most significant factors influencing anxiety, gender, age, culture, conflict, economic status, and urbanization were identified. Globally, anxiety disorders range from 5.3% (3.5–8.1%) in African cultures to 10.4% (7.0–15.5%) in Euro/Anglo cultures (Baxter et al., 2012).

A study was conducted in the Dang district of Nepal to determine the prevalence and associated factors of anxiety among adolescents in secondary and higher secondary schools. Four private and four public schools were randomly chosen, with a sample size of 533 in the Dang district, and the stratified cluster technique was used to calculate the sample size of adolescents. There was a 46.5% prevalence of anxiety among adolescents. According to bivariate logistic regression, anxiety was related to gender, grade, and school. On the other hand, in multivariate logistic regression, males had 1.5 times more anxiety than females. Students in grade nine reported having 0.477 times less anxiety than students in grade 12; grade 10 students reported having nearly two times more anxiety than grade 12 students. There was two times more anxiety among public school students than among private school students (Bhandari & Adhikari, 2015).

In Kolkata, India, a cross-sectional study was conducted using the State-Trait Anxiety Inventory among 460 adolescents in classes IX to XII. Through a multi-stage sampling procedure, 460 adolescents (220 boys and 240 girls), aged 13–17 years, were recruited for the study. The data were collected using a self-report, semi-structured questionnaire as well as the State-Trait Anxiety Inventory, a standardized psychological test. Anxiety was prevalent in the sample, with 20.1% of boys and 17.9% of girls suffering from high levels. Boys were more anxious than girls ($p < 0.01$). Adolescents from Bengali medium schools were more anxious than adolescents from English medium schools ($p < 0.01$). Adolescents belonging to the middle class (middle socio-economic group) suffered more anxiety than those from both high and low socio-economic groups ($p < 0.01$). Adolescents with working mothers were found to be more anxious ($p < 0.01$). Results also show that a substantial proportion of the adolescents perceived they did not receive quality time from fathers (32.1%) and mothers (21.3%). A large number of them also did not feel comfortable sharing their issues with their parents (60.0% for fathers and 40.0% for mothers) (Deb & Walsh, 2010).

Material and Methods

The cross-sectional study was conducted to assess the prevalence and factors associated with anxiety among school students using a structured self-administered questionnaire and the Modified Hamilton Anxiety Rating Scale. In the Modified Hamilton Anxiety Rating Scale, each item is scored on a scale of 0 (not present) to 4 (severe), with a total score range of 0-56, where <17 indicates mild severity, 18-24 mild to moderate severity and 25-30 moderate to severe. The study was conducted in Kashi Noble Academy School, Siddharthanagar Municipality, Bhairahawa, Rupandehi from 2080/3/6 to 2080/3/20 among 9th and 10th class students. The sample consisted of 187 students in 9th and 10th classes. The sample size was calculated by Cochran's formulae. The non-probability purposive sampling technique was used. The tool was developed based on literature, and content validity was done through the consultation of subject and language experts. The pretesting was done among 19 students of the 9th and 10th classes of Sunshine Boarding School at Siddharthanagar Municipality, Bhairahawa, Rupandehi on 2080/3/2. Ethical and administrative approval was obtained from concerned authorities. During data collection, informed written consent was obtained from each student with assent consent from the principal of the school. The data were analyzed by using descriptive and inferential statistics (frequency, percentage, and chi-square) based on the objectives of the study.

Results

The analysis and interpretation of data collected to assess the prevalence and factors associated with anxiety among students of 9th and 10th classes. The data were analyzed by using descriptive and inferential statistics based on the objectives of the study. The findings of the study are presented in tables.

Distribution of Subjects Based on Demographic Variables

The majority of the students 56.1% of them were of age between 15-16 years while the mean age of the students was 14 years. Among the students, more than half of them (52.4%) were male and 47.6% were female. More than half of the students (54%) were Chhetri, and 27% were Brahmin. The majority of the students (94.7%) were living with their family followed by 3.7% living with relatives and 1.65% living alone. More than half of the students (66%) belong to the nuclear family whereas 34% belong to the joint family. Less than half (41.7%) of students' fathers and 38.5% of students' mothers were educated at the secondary level. More than half of students' mothers (65.2%) were involved in household work, and others were in business, service, and wage labor. More than half of students' fathers (55.6%) were involved in business, and only 1.6 % were in wage labor.

Table 1
Frequency and Percentage Related to Factors Associated with Anxiety

Variables	Frequency(f)	Percentage (%)
n=187		
Academic pressure		
High	101	54
Low	86	46
Peer relationship		
Very good	119	63.6
Good	53	28.3
Fair	6	3.2
Poor	7	3.7
Very poor	2	1.1
Peer supportiveness		
Very supportive	105	56.1
Somewhat supportive	64	34.2
Neither supportive nor unsupportive	16	8.6
Somewhat unsupportive	1	0.5
Very unsupportive	1	0.5

Table 1 revealed that 54% of students had experienced high academic pressure. The majority 63.6% of the students had very good peer relationships and 56.1% had very supportive peers.

Table 2
Prevalence of Anxiety among Respondents

Variables	Frequency	Percentage (%)
Mild	143	76.5
Mild to moderate	35	18.7
Moderate to severe	9	4.8

n =187

Table 2 depicts that the majority of respondents 76.5% had mild anxiety, 18.7% had mild to moderate anxiety and, the minority of respondents 4.8 % had moderate to severe anxiety according to score of Hamilton Anxiety Rating Scale which is available in the public domain.

Table 3
Association between Socio-demographic Characteristics with Anxiety

Variables	Mild	Mild to Moderate	Moderate to Severe	X ² value	P-value
Age					0.033*
13-14	56	15	4	10.43	
15-16	80	17	5		
17-18	5	2	3		
Sex					0.005*
Female	59	23	7	10.41	
Male	84	12	2		
Marital status of parents				8.71	0.19
Staying together	133	32	8		
Separate	5	3	0		
Divorce	2	0	1		
Widowed	3	0	0		
Living with					0.49
Family	136		8	1.40	
Relatives	5		1		
Alone	2		0		
Types of Family					0.026*
Nuclear	99		3	4.94	
Joint	44		6		
Education of mother					0.21
Illiterate	14	2	1	15.44	
Non-formal	0	2	1		

n =187

BalBikash	5	1	1		
Basic level	45	11	3		
Secondary level	54	15	3		
Bachelor	20	3	0		
Master and above	5	1	0		
Education of father					
Basic level	42	8	3	2.51	0.86
Secondary level	57	18	3		
Bachelor	31	5	2		
Master and above	13	4	1		
Occupation of mother				2.381	0.920
Business	29	7	1		
Service	20	5	1		
Wage labor	1	1	0		
Homemaker	93	22	7		
Occupation of father				8.228	0.19
Business	80	20	4		
Service	57	12	3		
Farming	2	0	1		
Wage labor	4	3	1		

*Significant at 5%

level

Table 3 depicts that age ($p=0.033$), sex ($p=0.006$), and type of family ($p=0.026$) are associated with level of anxiety.

Discussion

The statistical analysis of the present study showed that anxiety is very common among secondary school students and the factors responsible for anxiety are having a nuclear family, being female, and having high academic pressure.

The prevalence of anxiety was more than half 76.5% of the students experienced mild anxiety, 18.7% had mild to moderate anxiety and 4.8 % had moderate to severe anxiety. The findings were supported by the study conducted in Saudi secondary school boys of Al-Madinah city where 61.6% of students showed symptoms of anxiety. About 3.4% of students showed severe symptoms of anxiety whereas 58.2% of them showed mild to moderate symptoms of anxiety [6]. Similarly, the finding was supported by another study conducted in the al-Qassim region. A targeted population was secondary school students. The sample size was 1245 students, and the prevalence of anxiety was 425 (34.1%) of them had mild anxiety, 243 (19.5%) of them had moderate anxiety, and 122 (9.8%) had severe anxiety [7]. In the same way, the finding was supported by another study conducted among 623 children aged 9-12 years old who were studying in the fourth to sixth grade of elementary school in Dezful City, the prevalence of

anxiety among 623 students was 232 (37.2%) students had mild anxiety, 304 students (48.8%) had moderate anxiety and 87 students (14%) had severe anxiety [8].

In the current study, female students were found to be more prone to anxiety than male students, The majority of students female 25.8% had moderate anxiety and 7.9% had severe anxiety whereas 12.2% male had moderate anxiety and 2% had severe anxiety. Similarly, a survey on persistent anxiety among high school students in the United States showed students with binary gender classifications, 54/149 (36%) had GAD-7 scores in the moderate or severe anxiety range (scores \geq 10), with a greater proportion among females than males (47% vs 21%, $P < 0.001$). [9]

In the current study, the chi-square value shows a significant association between the prevalence of anxiety and certain socio-demographic variables, Age ($\chi^2=10.43$, $df= 4$, $p < 0.05$), Sex ($\chi^2=10.41$, $df= 2$, $p < 0.05$) and type of family ($\chi^2=4.94$, $df= 1$, $p < 0.05$). However, it doesn't show any significant association with other demographic variables such as marital status of parents, education, and occupation of parents. However, a similar study showed the prevalence and risk factors of anxiety status among students aged 13-26 years. A significant difference was observed between anxiety status and sex, mother education level, diet ($P < 0.05$), only-child family, gentle temper, regular breakfast habit, and friend support were associated with lower scores on anxiety status. [10]

Conclusion

The findings of the study revealed the prevalence and associated factors of anxiety among secondary school students. The prevalence of moderate and severe anxiety was more in female than male students. From the findings, it is concluded that anxiety is very common among secondary school students and factors involved with anxiety are having a nuclear family, being female, and facing high academic pressure. All these factors can be prevented by doing necessary modifications in life but the sex of the respondents cannot be changed, so that healthy lifestyle patterns can be adhered to become mentally healthy.

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Ethical Consideration: Formal administrative approval was obtained from concerned authorities and informed verbal consent was obtained from each respondent before data collection.

Conflict of Interest: None

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References

- Alharbi, R., Alsuhaibani, K., Almarshad, A., & Alyahya, A. (2019). Depression and anxiety among high school students. *Journal of Family Medicine and Primary Care*, 8(2), 504–510.
- Al-Johani, M., & Al-Qahtani, A. M. (2016). Prevalence and risk factors of anxiety among Saudi male secondary school students. *International Journal of Medical Science and Public Health*, 5(5), 994–999. Retrieved from <https://www.ijmsph.com/?mno=218161>
- Banaeipour, Z., Rostami, S., Zarea, K., & Cheraghian, B. (2016). The prevalence of anxiety and its related factors among school-age children. *International Journal of Pediatrics*, 4(6), 2019–2025. Retrieved from <https://ijp.mums.ac.ir/article/6970.html>
- Baxter, A. J., Scott, K. M., Vos, T., & Whiteford, H. A. (2012). Global prevalence of anxiety disorders: A systematic review and meta-regression. *Psychological Medicine*, 43(5), 897–910.
- Bhandari, K. P., & Adhikari, C. (2015). Prevalence and factors associated with anxiety disorder among secondary school adolescents of Dang District, Nepal. *Journal of GMC-Nepal*, 8(1), 6.
- Deb, S., & Walsh, K. (2010). Anxiety among high school students in India. *Australian Journal of Educational and Developmental Psychology*, 10, 18–31. Retrieved from <https://www.researchgate.net/publication/228639368>
- Jin, Y., & others. (2014). Prevalence and risk factors of anxiety status among students aged 13–26 years. *International Journal of Clinical and Experimental Medicine*, 7(11), 4420–4426. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4276221/>
- Khemka, N. O., & Rathod, R. R. (2016). Academic anxiety of secondary school students. *Techno LEARN*, 6(1). Retrieved from <http://www.ndpublisher.in>
- Rasquinha, D. M. (2012). Assessment and management of anxiety among adolescents through relaxation and counseling. *Indian Journal of Psychological Science*, 3, 130–142.
- Yin, O., Parikka, N., Ma, A., Kreniske, P., & Mellins, C. A. (2022). Persistent anxiety among high school students. *PLoS One*, 17(9), e0275292. <https://doi.org/10.1371/journal.pone.0275292>