

Prevalence of Social Anxiety and Its Associated Factors Among School-Going Adolescents of Butwal Sub Metropolitan City

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ABSTRACT

Introduction: Social Anxiety is a common and serious mental health problem among adolescents across the globe. Social anxiety symptoms if it goes beyond the threshold level it may cause social anxiety disorder which is a serious mental health issue among adolescents and youths. Despite being a serious issue among adolescents, much attention is not given in our country. The main objective of the study was to determine the prevalence of social anxiety and its associated factors among school-going adolescents of Butwal Sub Metropolitan City.

Methods: A school-based cross-sectional study among 390 school-going adolescent students aged 10 to 19 was done using a validated Nepali version of the Social Anxiety Scale for Adolescents (SAS-A) with a cutoff point ≥ 50 to measure social anxiety. Descriptive statistics like frequency, mean, median, and standard deviation were calculated. The association between social anxiety and independent variables was considered significant when p value was < 0.05 , which was assessed by bivariate analysis.

Results: Among a total of 390 adolescent students, about half (49.7%, CI: 0.45-0.54) of the adolescents had social anxiety in the study area.

Conclusions: The findings highlight the considerable prevalence of social anxiety among school-going adolescents in the study area. There is a need for social support from parents, and friends for adolescents' especially early adolescents.

Key Words: *Adolescents, Early adolescents, Social Anxiety, School-going Adolescents, Nepal, SAS-A.*

INTRODUCTION

Social Anxiety is a social phobia or normative phenomenon where an individual experiences intense fear of being social which involves interactions with people. It can be noted that social anxiety is a symptom whereas anxiety disorder is clinical.¹ A person with a social anxiety disorder feels anxiety or fear in certain or all social situations, such as meeting new people, dating,

being on a job interview, answering a question in class, or having to talk to a cashier in a store.² Social anxiety typically starts in childhood or adolescence, median age of onset is in the early to mid-teens with most people having developed the condition before they reach their 20s.³ Social anxiety commonly starts during adolescents and can persist for years, or even a lifetime, if not identified and treated earlier.⁴

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Although it is a known fact that social anxiety has an impact on behavior, academic performance, and overall development in adolescents, in countries like Nepal a low-income country less importance is given to mental health and adolescent.⁵

This study has aimed to identify the prevalence of social anxiety among school-going adolescents and socio-demographic, and social support factors that affect the social anxiety of adolescents.

METHODS

A cross-sectional descriptive study was conducted among the adolescent students of both private and boarding schools of Butwal Sub Metropolitan City, Rupandehi, Nepal. The study duration was 6 months from November 2021 to May 2022. Ethical clearance was granted by the institutional review board of the Universal College of Medical Sciences (UCMS/IRC/182/21). Written approval was taken from schools' authority and participants and verbal consent was taken from participants' parents through participants.

The study population was students of classes 8,9 and 10. Students aged below the age of 19 were included. Likewise, prior diagnosed mental illness students were excluded.

Sample Size

The study conducted among seven countries of the world in 2020, showed a prevalence of 36% among those countries.⁶ Hence, using 36% as prevalence, the sample size was calculated using following formula,

$$n = Z^2 pq / d^2$$

Where, p = prevalence of social anxiety in world

$$q = 1 - p$$

d = acceptable error (5%)

Z = standard variation at the confidence interval level 95% (Z = 1.96)

$$\text{Therefore, } n = (1.96)^2 (0.36) (0.64) / (0.05)^2$$

$$= 354.04 \approx 354$$

Including 10 % non- response the total sample size; 354 + 35 = 389

Sampling Technique

The municipal profile book provided the initial list of secondary schools in Butwal Sub Metropolitan City. To ensure representation from both government and private secondary schools, a Multistage Sampling Technique was employed. Two categories were created: government secondary schools and private secondary schools. Within each category, a Simple Random Sampling technique (Lottery Method) was used to select two schools, resulting in a total of four randomly

chosen schools. Specifically, Kanti Secondary School and Nabin Audhogik Kadar Bahadur Rita Secondary School were randomly selected from the government secondary school category. From the private secondary school category, Deep Boarding High School and LB Namuna Academy were chosen randomly. Among the selected schools, only students in grades 8, 9, and 10 were considered as the population for data collection. In cases where there were multiple sections within a single class, a simple random sampling (Lottery Method) was utilized to select only one section. All students belonging to the selected class and section were included in the data collection process.

The semi-structured questionnaire was designed to assess dependent variable social anxiety among school-going adolescents and independent variables such as socio-demographic (father's education, mother's education, father's job, mother's job), socio-economic factors (age, sex, ethnicity, family size, family size) and social support factors(peer support, parents support and special one support) which may affect social anxiety.

Social Anxiety Scale for Adolescents (SAS-A)

It is a standard tool used to assess the level of social anxiety among adolescents of age group 10-19 which was originally developed by Dr. La Greca, Annette M. Lopez, and Nadja in 1998.⁷ This tool was found reliable through different reliability tests done at different times. This stool was validated in Nepali and used by previous researchers in Birgunj, Nepal.¹ It contains 18 descriptive self-statements and four filler items reflecting activity preferences ("I like to read") or social preferences ("I like to play with other friends"). Each item is rated on a 5-point scale according to how much the item "is true for you" (1 = not at all, 5 = all the time). Based on factor analytic studies, three distinct subscales have been identified, Fear of Negative Evaluation (FNE), Social Avoidance and Distress (SAD-New) and Social Avoidance and Distress (SAD-General). Total sum of scores from all three factors is used to calculate social anxiety. Score of greater or equal to 50 is considered a threshold point for social anxiety.

Multi Dimensional Scale for Perceived Social Support (MDSPSS)

It is a tool used to measure the level of social support adolescents receive from their family members, peers, and others. MDSPSS was originally developed by Zimet, Dahlem, Zimet & Farley in 1998. It has 12 items to measure the perceived adequacy of social support from three sources; Family, friends, and significant others. It has 3 factors measured inside it, in which family support has 4 items, peer support has 4 items and significant others has 4 items. It uses a 7-point Likert scale (0= Very strongly disagree, = Very strongly agree) Points can range from 12 to 84. Higher scores indicate strong support.

Data Management

Self-administered questionnaire was used among students. All the data were coded and rechecked properly to assure quality. The data was entered and analyzed through MS-excel and Statistical Package for Social Science (SPSS) version 20. Descriptive as well inferential statistics were used to analyze the data statistically. Descriptive statistics were calculated in terms of percentage, mean, and standard deviation (SD). The association between social anxiety and independent variables was assessed by bivariate analysis (odds ratio).

RESULTS

A total of 402 participants were taken for the study; among these participants, 12 participants left the study in between so they were excluded as non-response and the total findings were based on 390 participants. Table 1 represents the prevalence of social anxiety among school-going adolescents of Butwal Sub Metropolitan City using 18 items SAS-A scale. It was found that 49.7% (CI: 0.45-0.54) of adolescents have a higher level of

social anxiety (SAS-A score \geq 50).

Table 1. Prevalence of Social Anxiety

Variable	Category	n(%) (n=390)
Social Anxiety		
	High social anxiety (SAS-A score \geq 50)	194(49.7)
	Low Social Anxiety (SAS-A score < 50)	196(50.3)

Bivariate Analysis

Table 2 shows the relation of socio-demographic characteristics with Social Anxiety. The findings through the bivariate analysis showed that the age of adolescent and social anxiety was significantly associated. i.e. early adolescents had higher social anxiety scores (OR= 2.61, CI:1.03 – 6.6) compared to middle and late adolescents. Similarly, a significant association was seen between sex and social anxiety among adolescents. The odds of social anxiety were seen significantly higher among females

Table 2. Association of Social Anxiety with Socio-Demographic Characteristics

Variables	Social anxiety		OR	95% CI for OR	p	
	High n (%)	Low n (%)				
Age						
	Early adolescents	17 (33.3)	34 (66.7)	2.61	1.03 – 6.6	0.04*
	Middle adolescents	160 (51.8)	149 (48.2)	1.21	0.57 – 2.5	0.60
	Late adolescents	17 (56.7)	13 (43.3)	1		
Sex						
	Female	100 (56.5)	77 (43.5)	1.61	1.0 – 2.4	0.02*
	Male	95 (44.6)	118 (55.4)	1		
Grade						
	Grade 8	63 (49.2)	65 (50.8)	1.12	0.69 – 1.80	0.63
	Grade 9	56 (47.5)	62 (52.5)	1.20	1.20 – 0.73	0.45
	Grade 10	75 (52.1)	69 (47.9)	1		
School type						
	Government	89 (50.3)	88 (49.7)	0.96	0.64 – 1.43	0.84
	Private	105 (49.3)	108 (50.7)	1		
Family type						
	Nuclear	114 (50.7)	140 (49.3)	0.86	0.55 – 1.35	0.53
	Joint and extended	50 (47.2)	56 (52.8)	1		
Ethnicity						
	Dalit	11(47.8)	12(52.2)	1.05	0.44 – 0.48	0.90
	Janjati	67(51.9)	62(48.1)	0.89	0.57 – 1.37	0.89
	Madhesi	2(33.3)	4(66.7)	1.92	0.34 – 10.74	1.92
	Muslim	6(60)	4(40)	0.64	0.17 – 2.34	0.64
	Brahmin/chhetri	109(49.1)	113(50.9)	1		

Note: * Denotes significance and ** denotes highly significance

Association of Social Anxiety with Socio-Economic Characteristics

This table 3 shows the relation between social anxiety with socio-economic characteristics of the participant's family. Mothers' education level was not found significantly significant with social anxiety among adolescents but the odds of social anxiety was 1.23 times higher among adolescents whose mother had below secondary education level in comparison to those whose mother had above secondary education level. Adolescent

social anxiety was not found significantly associated with their mother's occupation, but adolescents whose mothers were housewives had 1.18 times higher social anxiety than that of other than housewife. While looking towards adolescents' father's education level, those adolescents whose father had below secondary level education had 1.19 times higher social anxiety in comparison to adolescents who had higher than secondary education, but this relation wasn't found statistically significant.

Table 3. Association between Social Anxiety and Socio Economic Characteristics

Variables	Categories	Social anxiety		OR	95% CI forOR	p
		High n(%)	Low n(%)			
Mothers education						
	Below secondary	58(46.4)	67(53.6)	1.23	0.80 - 1.89	0.32
	Above secondary	137(51.7)	128(48.3)	1		
Mothers occupation						
	Housewife	105(48.2)	113(51.8)	1.18	0.79 - 1.76	0.41
	Others than housewife	90(52.3)	82(47.7)	1		
Fathers education						
	Below secondary	42(46.7)	48(53.3)	1.19	0.74 - 1.90	0.47
	Above secondary	153(51)	147(49)	1		
Fathers occupation						
	Agriculture	8(36.4)	14(63.6)	1.67	0.64 - 4.36	0.28
	Labor	22(62.9)	13(37.1)	0.56	0.25 - 1.25	0.16
	Local shop/business	81(48.5)	86(51.5)	1.01	0.61 - 1.68	0.94
	Service man	37(53.6)	32(46.4)	0.83	0.44 - 1.54	0.55
	Foreign employment	47(49.0)	49(51.0)	1		

Association of Social Anxiety with MDSPSS

This table 4 shows the relation of social anxiety with perceived social support from special person, parents and friends using the MDSPSS scale. The findings through the bivariate analysis showed that perceived friends' support had a highly significant association

with social anxiety among school-going adolescents. i.e. adolescents having higher friends support had lower levels of social anxiety (OR = 0.09, CI = 0.059 - 0.161). Perceived special support and parental support were not found significantly associated with social anxiety among adolescents.

Table 4. Association of Social Anxiety with MDSPSS

Variables	Categories	Social anxiety		OR	95% CI	p
		High n (%)	Low n (%)			
Multi-Dimensional Scale for Perceived Social Support						
Special one support						
	High	171 (87.7)	24 (12.3)	1.74	0.85 - 3.56	0.12
	Low	164 (84.1)	31 (15.9)	1		
Parents support						
	High	181 (92.8)	14 (7.2)	1.89	0.73 - 4.91	0.18
	Low	181 (92.8)	14 (7.2)	11		
Friends support						
	High	69 (35.4)	126 (64.6)	0.09	0.05 - 0.16	<0.01**
	Low	162 (83.1)	33 (16.9)	1		

Note: * Denotes significance and ** denotes highly significance

DISCUSSION

This research study revealed some important social anxiety association with age, sex and peer support. This study found the prevalence of social anxiety among school-going adolescents in Butwal Sub Metropolitan City was 49.7 % with a mean social anxiety score to be 2.51, which was similar to a study conducted in Birgunj Metropolitan where the mean score was 2.31.¹ The study conducted in Australia showed a slightly lower mean score of social anxiety 2.22.⁸ The prevalence of social anxiety was found to be 58.5% in a study conducted in Lithuania, which is slightly higher than this study. A study conducted among seven countries of the world revealed the average prevalence of social anxiety among adolescents to be 36%.⁶

This research study also revealed other associated factors that have significance with social anxiety among adolescents. This study revealed that social anxiety was significantly high among early adolescents. A similar finding is revealed in the study where junior high school adolescents reported higher levels of social anxiety than in senior high school.⁹ While the study conducted by the author of the scale did not find any significant relation between social anxiety with age.⁶ Another study conducted in Lithuania, a European country revealed more social anxiety among late adolescents.¹⁰ This difference may be due to differences in sample size, sampling technique, and study area, study conducted in Birgunj. A study conducted by Annette M. La Greca had not included complete ages of early adolescents but this study includes early adolescents also.

In this study, it was found that the total social anxiety score was found significantly more in female adolescents than in male adolescents. This is similar to the findings of a study conducted in Birgunj Metropolitan City which revealed female adolescents reporting more symptoms and high scores on SAS-A scale.¹ A study on Indian undergraduate students also found females reported higher social anxiety than males.¹¹ Another study in Pakistan also supported this, the mean social anxiety score for women was higher than for men.¹² In the study conducted by the author of the scale (SAS-A) it was found that girls reported significantly more total social anxiety than did boys.⁶ Relation of high social anxiety with adolescent girls was supported by a study conducted in Spanish Speaking adolescents using the same SAS-A.¹³ A similar result was obtained in many other studies across the globe with girls experiencing significantly higher social anxiety than did boys.^{9,10,14,15} Social Anxiety is seen high among girls as they have more metacognitive beliefs about the uncontrollability of worrying and believe that worry me avoided.¹⁶ In the book Gender Difference at Puberty, it is suggested that early-maturing girls may not be prepared for the psychosocial changes that accompany morphological development, thus increasing

the risk for the development of anxiety.¹⁷

The current study also revealed that social anxiety was found significantly higher among adolescents who reported low support from friends. The association between low friend support and higher social anxiety was found very strong in this study. A similar finding was revealed by the study conducted in Birgunj, it was found that social support was a significant predictor of social anxiety, when social support from close friends was higher, adolescents reported lower symptoms of social anxiety.¹ Similar findings were found in the study conducted in the USA, where it was found that high socially anxious adolescents reported lower support from classmates i.e. higher overall social anxiety was related to lower perceived support from classmates. However, in this study perceived support from parents and special ones was not found to be a significant predictor of social anxiety.⁶ This relation of social anxiety with friends is found because as children progress into adolescence their social relationship with friends become increasingly important.¹⁸ Adolescents see their peers as a primary source of social support and so peer relationship is taken on greater significance with social anxiety.¹⁹ The results indicated that the frequency of close friend social support and the importance of close friend social support were significantly associated with social anxiety.²⁰ In another study also a similarly lower level of peers acceptance was found to be associated with higher social anxiety.²¹ Adolescents who were affiliated with a peer crowd reported further lower levels of positive best friendships qualities and higher levels of negative best friendship qualities each significantly associated with a higher level of social anxiety.²² A recent research study also supported that those who have decreased level of closeness with friends have higher levels of social anxiety.²³ Quality of friendship was also found significant predictor of social anxiety among adults.²⁴

This study was conducted only among school-going adolescents in only one city, this may limit the generalization of the study to some extent.

CONCLUSIONS

This study indicates that social anxiety affects approximately 1 out of 2 adolescents. The study found significant associations between social anxiety, perceived support from friends, adolescent's sex, and age, with females experiencing higher anxiety levels and early adolescents showing higher levels.

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CONFLICT OF INTEREST

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