Lack of Association between Academic Achievement and Social Phobia among High School Students of Kathmandu

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Abstract

Objectives: The general objective of this research was to see if academic achievement significantly relates with social anxiety of high school students. There were other specific and auxiliary objectives also. One among these was to gather prevalence data of social anxiety among adolescents of Kathmandu.

Method: A survey was conducted among 696 high school students of Kathmandu to see if academic achievement was associated with their social phobia. Convenient sample from a high school was used. Social Phobia Inventory (SPIN), a self-report test, was used to measure social anxiety disorder of adolescent students. Some demographic data were also collected. Data were organized in MS Excel and analysed in SPSS.

Results: The prevalence of ‘very severe’ social phobia among boys was 2.01% and girls had that of 1.71%. One-way ANOVA showed that academic achievement did not have a relationship with social phobia, F (2, 613) = 1.74, p > 0.05.

Conclusions: Academic achievement was not associated with social phobia among students of a high school in Kathmandu. Boys have more prevalence of severe forms of social anxiety than girls when they are in adolescence.

Keywords
Social anxiety disorder (SAD), anxiety, adolescents, high school, Nepal

INTRODUCTION

Social phobia is also called social anxiety disorder (SAD). It is an intense fear of being scrutinized in social situations or performance situations (Sue et al., 2017). According to Diagnostic and Statistical Manual of Mental Disorders (DSM-5), people with SAD have undue fear of being judged or watched by others, too much self-consciousness in social gatherings and they fear that their behaviours (related to anxiety) will offend others and cause humiliation to themselves (American Psychiatric Association, 2013). They endure social situations with a great deal of fear or they totally avoid such situations. They avoid meeting strangers, having a conversation, giving speech, eating and drinking in front of others. The fear, anxiety or avoidance is persistent for six months or more (Mash & Wolfe, 2016). Such fear, anxiety and avoidance cause distress and impairment in a person's functioning in various areas of life. SAD may be narrow in which sufferers show the fear of talking in public or eating in front of others. It may also be broad in which they show general fear of functioning properly in front of others. In both cases, sufferers judge themselves as performing less skillfully than they actually do (Comer, 2013). Cognitive psychologists have posited that people with social phobia hold some social beliefs and expectations that harm them. They hold unrealistically higher social standards, view themselves as unattractive social beings, consider themselves socially inadequate, and believe that they should behave perfectly in social situations.

SADs are found to be two times more common in women (Sue et al., 2017). For example, Wittchen et al. (1999) found that lifetime prevalence of social phobia was 9.5% in females and 4.9% in males among adolescents and young adults. Similarly, Essau et al. (1999) found that 2.1% female and 1% male adolescents had social phobia. Social phobia starts at mid-teens (ages 14–17 years) (Sue et al., 2017) or early childhood (Rosellini et al., 2013). A major cause of SAD might be peer victimization (Pontillo et al., 2019). People with social phobia have low self-esteem and distorted body image (Izgic et al., 2004). They also have more loneliness, dysphoria and general emotional over-
responsiveness (Beidel et al., 2007). Depression is very co-morbid with anxiety disorders. For example, Risal et al. (2016) found 5.9% of co-morbidity in Nepal.

Among the students of grades 6–8, a point-prevalence rate of 4.4% was found in Sweden (Gren-Landell et al., 2009). Among the undergraduate students in Ethiopia, 31.2% were seen to have social phobia (Desalegn et al., 2019). In a Saudi Arabian study among male adolescents, prevalence of SAD was 11.7% (Ghazwani et al., 2016). Risal et al. (2016) found 22.7% crude and 16.1% gender and age-adjusted point-prevalence of anxiety in a survey. In eastern Nepal, Prevalence of any psychiatric disorder was seen to be 12.4% in a study; 0.2% prevalence of social phobia was seen (Shyangwa et al., 2014).

Anxiety disorder and social phobia in particular among high school students have not been studied in Nepal. So, this research is significant in that it assesses the level of SAD among late teens who are in high school level of study. It can contribute both theoretically and practically to literature of anxiety disorders. Social phobia is important in schools because school life is, in large part, a social interaction. It is the first step to career. If students learn to be socially anxious in schools, they cannot be confident manpower in life down the road. New education system in Nepal has defined grades 9, 10, 11 and 12 as secondary education (high school, in vernacular language). Among the university students, Brook and Willoughby (2015) found a significant and direct negative relationship between social anxiety and academic achievement. In their study, the negative indirect effect of academic achievement through social ties was also significant. In another study among university students, people with and without social phobia did not differ significantly in terms of academic achievement (Gultekin & Dereboy, 2011). This research intended to find if there is a relationship of academic achievement with social phobia among the adolescents. Such research does not exist in the case of Nepal. Past studies outside Nepal focus to study the effect of social phobia on academic achievement but not the other way around. Moreover, studies among high school students are scarce. The auxiliary aims were to see if social phobia correlates with age, family size, and number of close friends of the adolescent students. Besides, association of gender, family type, religious affiliation, ethnicity and type of education system with social phobia was tested.

METHOD

Study design

The study was a cross-sectional self-report pen and paper survey.

Sampling

Sampling was non-probability (convenience) type.

Participants

There were 696 participants in the sample; 462 (66.38%) were male and 234 (33.62%) were female selected from 16 sections of high school level from a big school located at the centre of the city. Table I illustrates the characteristics (nature) of participants. There were 1200 students in total in A level and grades 11 and 12 combined in the school located in Kathmandu. All the 11th and 12th graders had Science (Biology or Mathematics) as major. There were 264 students from 11th grade, 284 students from 12th grade, and 148 students from A level (in the first and second years) in the sample. The students coming to study in the school were from all the seven provinces of Nepal.

In Nepal, there are 9447 schools that have grades 9 and 10. It has 3781 schools that teach in grades 11 and 12. In state no. 3 alone, where Kathmandu lies, there are 2727 schools that teach in grades 9 and 10, and 978 secondary schools that teach in grades 11 and 12 (Government of Nepal | Ministry of Education, 2018). There are 394,651 students in all the high schools of Kathmandu alone.

Setting and time of data collection

All data were collected and all participants approached in a single high school in Kathmandu, the capital city of Nepal. It took several days to collect data. Data were collected in December 2018 through January 2019.

Inclusion and exclusion criteria

Even though researchers intended to collect data from all 1200 students, their examination neared and school administration did not allow to use their school time saying that their grades would be impacted. Among all those approached from grades 11 and 12, consenting students participated in the research. Unwilling students were not included.

Instruments

A psychological test developed by Jonathan R. T. Davidson and his friends named Social Phobia Inventory (SPIN) was used to measure social phobia. It consists of 17 items. Scores can range from 0 to 68 because the options available to respond range from ‘not at all (0)’ to ‘extremely (4)’. It is a reliable and valid psychological test to measure social phobia (Connor et al.,
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Academic achievement was operationalized as the marks obtained by participants in their previous annual examination. The family in the city area that earns less than Nepali Rupees (NRs.) 1000 a day is considered poor. The one that earns NRs. 1000–2000 is considered middle class and the one that earns more than NRs. 2000 a day is considered rich. Number of friends reported by students are their self-declared friends in real life. Type of education means if they are studying in A level or in 10+2 system (i.e., grade 11 and grade 12).

**RESULTS**

Mean score from SPIN was 24.90 (SD = 11.47). Females had mean social phobia score 25.69 (SD = 11.45) and males had 24.50 (SD = 11.47). On the basis of grades, students with A+ had mean score of 24.23 (SD = 11.15), students with A grade had mean 24.78 (SD = 11.05) and those with other grades (i.e., B+, B, C+ and C) had mean score of 26.49 (SD = 11.92). The prevalence of social phobia categorised into very severe, severe, moderate and mild form of social phobia respectively. Participants scoring 20 or below would be considered having no social phobia. Those scoring above 20 would be considered having some form of phobia.

Consent form was signed after the participants were clearly informed about the objective and their role in the study. Consent form was a part of ethical consideration. Moreover, participants were assured that their information would remain confidential and used anonymously in research report only. Even the name of school has not been disclosed anywhere. Participants were informed and given the right to withdraw. They were treated with dignity.

After the collection of data, they were entered into IBM SPSS Statistics 25, imported into and organized in MS Excel 2016 and imported back to IBM SPSS Statistics 25 for analysis.

**Ethics**

Mean score either, F (4, 665) = 1.37, p > 0.05. Such a relationship was not found between ethnicity and social phobia either, F (5, 656) = 1.20, p > 0.05. Mother's occupation did not relate to social phobia score either, F (6, 654) = 0.67, p > 0.05. Socioeconomic status (SES) had a significant relationship with social phobia, F (2, 655) = 4.50, p < 0.05. Post-hoc comparisons by Tukey Honestly Significant Difference (HSD) test showed that rich class (M = 15.16, SD = 11.27) and middle class (M = 25.12, SD = 11.43) differed significantly, and rich class (M = 15.16, SD = 11.27) and poor class (M = 27.74, SD = 12.83) also differed significantly but middle class (M = 25.12, SD = 11.43) and poor class (M = 27.74, SD = 12.83) did not differ significantly at 0.05 level of significance. Point biserial correlation between SES and total scores of SPIN was significant, r = -0.099, p < 0.05, two-tailed. It means, as socioeconomic status falls from rich to poor, the social phobia increases for the students.
A Chi squared test of independence was conducted to examine the relationship between gender and having or not having social phobia. The association was not significant, $X^2(1, N = 696) = 3.573, p > 0.05$. Similarly, the proportion of students who reported having social phobia did not differ by gender, $X^2(1, N = 696) = 0.463, p > 0.05$.

A t test for independent means showed that gender did not have a significant relationship with social phobia, $t(468.71) = 1.29, p > 0.05$. Another t test for independent means showed that family type also did not have an effect on social phobia, $t(172.51) = 0.81, p > 0.05$. Still another t test for independent means showed that education system type did not relate to social phobia, $t(242.68) = 0.27, p > 0.05$.

Table 1. Number of participants according to grades in their last examination, their religion, ethnicity and socioeconomic status

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Number of students</th>
<th>Percentage</th>
<th>Socio-economic status</th>
<th>Number of students</th>
<th>Percentage</th>
<th>Grade</th>
<th>Number of students</th>
<th>Percentage</th>
<th>Religion</th>
<th>Number of students</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brahman</td>
<td>290</td>
<td>41.67</td>
<td>Rich class</td>
<td>11</td>
<td>1.58</td>
<td>A+</td>
<td>305</td>
<td>43.82</td>
<td>Hindu</td>
<td>616</td>
<td>88.51</td>
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<tr>
<td>Chhetri</td>
<td>110</td>
<td>15.80</td>
<td>Middle class</td>
<td>633</td>
<td>90.95</td>
<td>A</td>
<td>191</td>
<td>27.44</td>
<td>Buddhist</td>
<td>32</td>
<td>4.60</td>
</tr>
<tr>
<td>Janjati</td>
<td>68</td>
<td>9.77</td>
<td>Poor class</td>
<td>14</td>
<td>2.01</td>
<td>Other</td>
<td>120</td>
<td>17.74</td>
<td>Other [Islam, atheism, Kirat]</td>
<td>29</td>
<td>4.17</td>
</tr>
<tr>
<td>Madhesi (Tarai origin)</td>
<td>61</td>
<td>8.76</td>
<td>Not revealed</td>
<td>38</td>
<td>5.46</td>
<td>Not revealed</td>
<td>80</td>
<td>11.49</td>
<td>Not revealed</td>
<td>19</td>
<td>2.73</td>
</tr>
<tr>
<td>Newar</td>
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<td>20.26</td>
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<td></td>
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<tr>
<td>Not revealed</td>
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<td><strong>Total</strong></td>
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</tr>
</tbody>
</table>

Figure 1. Severity of social phobia among adolescent students (shown in percentage)
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Correlation between age and social phobia was not significant, \( r (690) = 0.01, p = 0.75 \). It was not significant for family size and social phobia either, \( r (691) = 0.01, p = 0.74 \). Number of siblings did not correlate to social phobia significantly, \( r (675) = -0.03, p = 0.52 \). However, there was significant negative correlation between the number of (self-reported) friends and social phobia \( r (694) = -0.15, p = 0.00 \). Figure 3 is its scatterplot.

### DISCUSSION

In our study among high school students of a high school in Kathmandu, boys were found to have more social phobia than girls in terms of percentage. Gren-Landell et al. (2009) found gender differences in social phobia; girls were more in social anxiety. This research showed the opposite by t test and by prevalence rates both. This finding is not consistent with the studies by Wittchen et al. (1999) and Essau et al. (1999). There might be sociocultural factors at play like pressures of gender expectations in such condition. In a study in rural part of Nepal, Kohrt and Worthman (2009) had found 36.9% and 20.4% women and men respectively endorsing the anxiety symptoms above validated cut-off for intervention. This study showed that 2.01% high school students had very severe social phobia. Essau et al. (1999) showed 1.6% of adolescents (aged 12–17 years) had social phobia. In a study, 15.9% high school students showed anxiety symptoms (Mazzone et al., 2007). This study, in which 10.34% high school students had severe (and very severe) social phobia, is comparable. About 30% high school students had social phobia of moderate nature or more. Risal et al. (2016) had found 17.2% point-prevalence of anxiety disorders in young adults aged 18–25 years.

Most of the hypotheses got rejected in this research. Academic achievement did not have a significant association with social phobia. Ethnicity and religion did not show relationship with it either. Father’s or mother’s profession did not have a significant relationship with social phobia in the adolescent students but socioeconomic status did. The better the SES, the less the social phobia is. Family type, education system type and gender did not have effect on SAD. Social phobia did not correlate with participants’ age, number of their siblings and family size. However, it did with number of friends. To conclude, academic achievement did not contribute to social phobia. High school students with higher number of friends have less social phobia or such students with lower number of friends have higher phobia. Similarly, socioeconomic status makes a difference to adolescent high school students’ social phobia scores.

This research had some limitations. Questionnaire would have been better understood by students if items were written both in English and Nepali. Students might not have well comprehended pure English or pure Nepali. The norms of the US study have been used. So, the categorization of social phobia into various levels should be accepted cautiously. Still,
Figure 3. Scatterplot of number of friends as predictor and social phobia as criterion variables

The internal consistency of items is found to be 0.873 in this study itself. So, norms are also expected to be on par with American norm. The participants were selected from a single school. Hence, the findings may not be generalizable to all high school students in Kathmandu. The school has the tradition of screening the best students in country for admission. So, the information about the academically backward students has not been represented well. Current study does not deal with subscales of SPIN. Future study can check if academic achievement significantly relates to the subscales like fear, avoidance and physiological symptoms separately.

The future research can also look at correlation between quantitative measures of academic achievement and social phobia. Likewise, its association with virtual social life can also be explored like by knowing how many friends do adolescents have in Facebook. Similarly, regression models can be made to predict the relationship of academic achievement and social phobia with other independent variables like age, social health, self-esteem and number of close friends.

ACKNOWLEDGEMENT

We thank Praristha Poudel, Binod Regmi and Reuben Hughes Sharma for helping in the collection of data. We are also grateful to the participants of this study and the school that allowed to conduct the survey.

AUTHORS’ CONTRIBUTIONS

PA and UP designed the research. UP supervised data collection. PA analysed the data and wrote the research report.

CONFLICT OF INTEREST

None.

ETHICAL APPROVAL

Ethics committee of Department of Philosophy and Psychology of TriChandra Campus (ref: 201810-003) approved the proposal for the research. The research complies with ethical code of conduct of American Psychological Association. Permission was taken from test maker to translate SPIN to Nepali language and use it for research.

FUNDING

This study was self-funded.
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INFORMED CONSENT

The participants taking part in the research were informed about the purpose of the research and their role in it. They all signed the consent form before doing the survey. They were informed well that they could withdraw from research anytime. Organizational permission was taken to conduct survey in the school.

REFERENCES


APPENDIX 1

SPIN in Nepali

Translation into Nepali by Pralhad Adhikari and Upama Poudel

Scale is based upon the English language version of the Social Phobia Inventory, © 1995, 2018, Jonathan R. T. Davidson, MD. All Rights Reserved. Translation into Nepali by Pralhad Adhikari and Upama Poudel.