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ORIGINAL RESEARCH ARTICLE

ASSOCIATION BETWEEN ACADEMIC EXPECTATION, ACADEMIC SELF PERCEPTION WITH ACADEMIC STRESS AMONG UNDERGRADUATE STUDENTS

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ABSTRACT

Background: Academic factors such as examination time, parent's and peer's pressure worried of getting a job after passing out, and unrealistic expectations of parents and teachers would be connected with academic stress. So, this study was designed to find out the association between academic expectation and academic stress among undergraduate public health students in Kathmandu Nepal.

Methods: A cross-sectional study was conducted from 1st March 2022 to 1st May 2023 by including 305 students studying Bachelor of Public Health in Kathmandu Valley. The colleges were selected through simple random sampling and data was collected through a self-administered questionnaire from final-year students. The Scale for Assessing Academic Stress (SAAS) was used to measure the perception of academic stress and academic expectations were measured through questionnaire. Association between academic expectation and academic stress was measure by a chi-square test and the p-value of 0.05 was considered a significant level.

Results: The prevalence of high academic stress was 83(27.2%). Most of the students were stressed during examination time, nearly one-third of students believed competition with peers was quite intense and their teachers were critical of their academic performance. The association between academic expectation, and academic stress were statistically significant.

Conclusions: Academic expectation was found to be associated with academic stress. Few of the students were found to have high academic stress which may demand scheduled academic counselling, motivation, and guidance to reduce the academic stress. Further research may be required to establish the effect size of academic expectations on academic stress.

INTRODUCTION

Stress refers to a dynamic interaction between the individual and the environment.[1] Students' active participation and preparedness in their educational activities for educational activities, influenced by their academic, familial, social, emotional, and physical pressure.[2] Academic factors including examination time, peer pressures, and intense academic activities were responsible for causing high academic stress.[3] Increased academic stress can be the risk factor for anxiety, depression, social dysfunction, and, in extreme cases, suicidal thoughts.[4, 5]

Globally, medical students are susceptible to psychological stress, and a reduction in life satisfaction. According to reports, 27% of students pursuing careers in health care experience psychological problems.[6] Competition between students may raise the level of stress.[7] Students experienced high academic stress, primarily attributed to high expectations of parents.[8] Academic stress was found to be the major issue among students with 32% of the 97,357 college students reporting that it led them to drop the course, finish it incompletely, or receive a poorer grade[9]. A study showed that almost all of the students were stressed, and more than half (56.3%) of participants were in the group of academic stress.[10] Low academic performance, academic dishonesty, cynicism, substance addiction, and severe mental diseases like despair, anxiety, and burnout are all caused by these circumstances. [11]

Much research on mental health among medical students is available, but the information is limited to public health students. Hence, this study was designed to find the association between academic expectation, perception, and academic stress among undergraduate public health students in Nepal.

METHODS

College-based cross-sectional study was conducted among final-year Bachelor of Public Health (BPH) students from different colleges in Kathmandu. Altogether seventeen institutions offer BPH programmes in Kathmandu Valley. Eight colleges was selected randomly. The total number of students were 387 which was our sample frame. The total study duration was one year and data was collected from March 1, 2022, to

May 1, 2023. The detailed motive of the study was explained to the students ensuring their understanding of the study and written consent as obtained from them. Ethical clearance was obtained from the Institutional Review Committee from CiST College, Baneshwor. The objectives and procedures of the study were clearly stated before the data collection.

The sample size was calculated using the standard formula for descriptive cross-sectional study, (n) $=Z^2pd/d^2$ for an infinite population. Taking the prevalence of high academic stress of 23.7%[12] among the estimated population, a level of confidence of 95% (z=1.96), and an allowable error of 5%, the sample size for the study population was calculated as 277.75≈ 278. After adding of 10% non-response rate, the final sample size was calculated to be 305. The number of students was not equal in all selected colleges, so, we used proportionate-to-size methods to select the number of students from selected colleges. Self-administered questionnaires were used for data collection which included the socio-demographic characteristics and stress related to academic expectations. The questionnaire included the socio-demographic characteristics, stress related to academic expectations, stress related to academic self-perceptions, and academic stress-related questions. Statements related to academic expectation and academic perception were independent variables and academic stress was a dependent variable. Both questionnaires were five-point rating scale types ranging from strongly agree to strongly disagree and neutral. The five-point rating scale were recoded into three points orderly, Agree Neutral, and Disagree. The tool to measure academic expectations was after reviewing the multiple literatures.[3,8, 13, 14] The prepared questionnaire was then validated with the extensive literature review under the guidance of subject experts, and research experts.

The validated standard tool the Scale Assessing Academic Stress (SAAS) was used to measure the academic stress.[15] Cronbach's Alfa of the SAAS scale for test re-test reliability within one-month time interval was 0.88 and split-half reliability was 0.75. The calculated Cronbach's Alfa of the SAAS scale from this study is 0.889. Further, the pretesting was done among the students of bachelor in public health from one of the colleges in Kathmandu affiliated to Purbanchal University for academic self-perceptions and academic expectations related questionnaire. Pretesting of the instrument was done in 30 students and the results of pretesting were not included in the final analysis. The questionnaires were distributed to the students ensuring their understanding of the process and objectives of the study. Proper written consent was taken before data collection and every individual's dignity was respected regarding their will to participate in the study.

The collected information was undergone through a series of rechecking and editing at the end of the day of data collection to minimize possible human errors and was entered into Epi-Data software. Further, the coding and categorization of data were performed. The set of SAAS questions contained 30 'yes', and 'no' questions. The score was given for the response 'yes=1 and no=0' and that was added to obtain the final score. The higher score was considered to be high academic stress. The summed score was not seen to be normally distributed while performing the normality test, the median was used as a measure of the central tendency parameter. Quartile distribution was used to calculate the level of academic stress. A score less than or equal to the third quartile was considered as low academic stress, and a higher than the third quartile was taken as high academic stress.[16] The final data set from Epi-data was then exported to SPSS version 25 for further analysis. The data were further analyzed using descriptive analysis. The Chi-square test was used with a *p*-value less than 0.05 ($p<0.05$) indicating statistical significance.

RESULTS

Among all 305 students, 42.6% were from 21-22 years followed by 38.4% from the age group of 23-24 years (median 23 years). Most of the students (76.7, n=234) were female. More than half (54.7%, n= 167) were from urban areas of Nepal. Most of the students had low academic stress (72.8%, n=222) while 27.2%, n=83 had high academic stress (Table 1).

Table 1: Sociodemographic information and prevalence of academic stress

Variables	Characteristics	Frequency
Age	Median (IQR)= 23.00(1)	n (%)
	19-20	17 (5.6)
	21-22	130(42.6)
	23-24	117(38.4)
	25-26	27(8.9)
	27+	14(4.6)
Sex	Male	71 (23.3)
	Female	234(76.7)
Permanent address	Rural	138(45.2)
	Urban	167(54.7)
Prevalence of academic stress		
	Low stress	222 (72.8)
	High stress	83 (27.2)

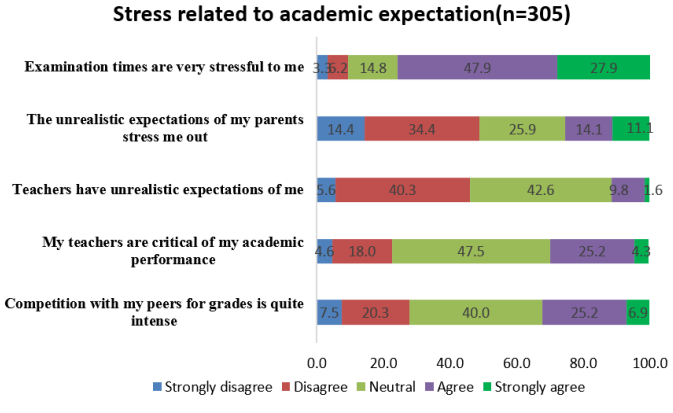

Figure 1: Stress related to academic expectation

Figure 1 describes the stress related to academic expectations of students during their studies. Most (74%) of respondents

were always stressed during examinations and one-fourth of them were stressed due to unrealistic expectations of their parents. About 43% of respondents disagreed with the statement ''unrealistic expectations of teachers''. Nearly one-third of respondents thought their teachers, were critical for their academic performance and competition with them.

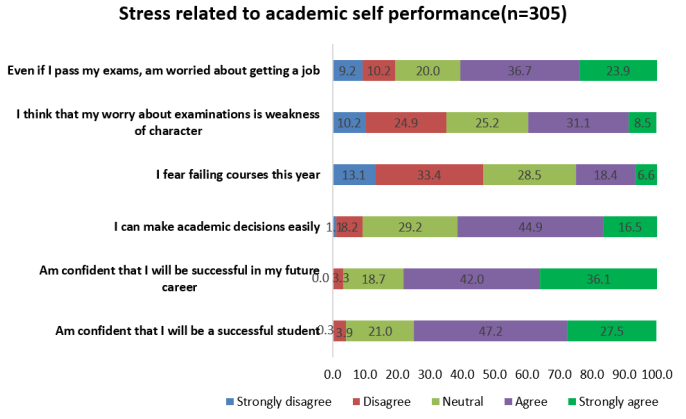

Figure 2: Stress related to students' academic self-perceptions

Figure 2 revealed the stress related to academic self-performance of respondents. Among all 305 students, most (74.7%) agreed that they were confident that they would be successful students but only 36% were confident they would be successful in their future careers. More than 60% were confident in making their academic decision easily by themselves. Nearly half (47%) have disagreed they feel fear of failing courses this year. Nearly the same of the respondents think their worry about examination is a weakness of character. More than 60% of them were worried about jobs after passing the final year.

Table 2 shows the association between students' academic expectations and academic stress. The academic expectation was on a five-point Likert scale and they were further classified on 3 points scale e.g., Agree, Neutral, and Disagree. All variables of academic expectations of students are statistically significant to academic stress.

Table 3 shows the association between student's academic self-perception and academic stress. Scales were also further classified into 3 points scale e.g., Agree, Neutral, and Disagree. All variables of self-perception and academic stress were statistically significant.

Table 2: Association between stress related academic expectation and academic stress

Variables	Characteristics	Academic stress level		
		Low n (%)	High n (%)	*P*- value
Competition with my peers for grades is quite intense	Agree	61 (62.2)	37 (37.8)	0.008**
	Neutral	91 (74.6)	31 (25.4)	
	Disagree	70(82.4)	15 (17.6)	
My teachers are critical of my academic performance	Agree	60 (66.4)	30 (33.3)	0.077
	Neutral	105(71.9)	41 (28.1)	
	Disagree	57 (82.6)	12 (17.4)	
Teachers have unrealistic expectations of me	Agree	19 (54.3)	16 (45.7)	0.029*
	Neutral	96 (73.8)	34 (26.2)	
	Disagree	107(76.4)	33 (23.6)	
The unrealistic expectations of my parents stress me out	Agree	40 (51.9)	37 (48.1)	<.0001**
	Neutral	60 (75.9)	19 (24.1)	
	Disagree	122 (81.9)	27 (18.1)	
Examination times are very stressful to me	Agree	156(67.5)	75 (32.5)	0.001**
	Neutral	38 (84.4)	7 (15.6)	
	Disagree	28 (96.6)	1 (3.4)	

*Significant at p-value <0.05, **Significant at p-value <0.01

DISCUSSION

The current study sought to examine the association between academic expectation, perception, and academic stress among the undergraduate students of the public health faculty in different universities in Nepal. This study included 305 students aged 19 and older, of whom a greater number of students were aged 21-25 and the participants were mostly female with more than half of them from urban settings which is consistent with earlier studies.[8, 15] The prevalence of high academic stress was determined to be 27.2% from this study. This figure closely aligns with findings from previous research conducted in Kathmandu metropolitan city, where 23.7% of students were reported to experience high academic stress.[14] Similar levels of stress were also observed in studies assessing stressor levels among students in medical colleges in Kathmandu[18] as well as among adolescent students in public schools in Kathmandu metropolitan city [19] and Rolpa, Nepal 26.5%. [17]

A study among undergraduate students from different academic institutions of Pokhara Metropolitan City where the prevalence of academic stress among health sciences students was found to be 16.4%.[20] Another study was conducted at a public sector University, in Saudi Arabia where 17.4% of students have high perceived stress. [21] Similarly, a study conducted in the Health science preparatory program found that academic stress

Table 3: Association between Stress related to student's academic self-perception

Variables	Characteristics	Academic stress level		P- value
		Low n (%)	High n (%)	
Am confident that I will be a successful student	Agree	177(77.6)	51(22.4)	.005**
	Neutral	37(57.8)	27(42.2)	
	Disagree	8(61.5)	5(38.5)	
Am confident that I will be successful in my future career	Agree	185(77.7)	53(22.3)	.001**
	Neutral	32(56.1)	25(43.9)	
	Disagree	5(50.0)	5(50.0)	
I can make academic decisions easily	Agree	152(81.70)	34(18.3)	<.001**
	Neutral	52(58.4)	37(41.6)	
	Disagree	18(60.0)	12(40.0)	
I fear failing courses this year	Agree	43(56.6)	33(43.4)	<.001**
	Neutral	60(69.0)	27(31.0)	
	Disagree	119(83.8)	23(16.2)	
I think that my worry about examinations is weakness of character	Agree	75(62.0)	46(38.0)	<.001**
	Neutral	52(67.5)	25(32.5)	
	Disagree	95(88.8)	12(11.2)	
Even if I pass my exams, am worried about getting a job	Agree	118(63.8)	67(36.2)	<.001**
	Neutral	47(77.0)	14(23.0)	
	Disagree	57(96.6)	2(3.4)	

*Significant at p-value <0.05, **Significant at p-value <0.01

perception among students was 8.37%[11] which is lower than the proportion of stress in this study, which might be the difference between first-year and final-year students as the study sample.

In our study, it was found that most (74%) of the students were always stressed during their examinations. Out of them, one-fourth were always stressed due to the unrealistic expectations of their parents. Similarly, a study conducted among undergraduate medical students in Nepal, reported that the severe source of stress among the students were high parental expectations, vast syllabus, exams and tests.[2] A study conducted among MBBS, BDS, and nursing students of Kathmandu Medical College found that 56.3% of undergraduate students had high academics stress. [12] The differences in the prevalence of stress might be due to differences in medical and health science students, selection of study variables and age of students.

The results from this study demonstrated that five items were stress related to academic expectations, the factors are theoretically meaningful and cohesive as examination times are very stressful, the unrealistic expectations of parents stress me out, teachers have unrealistic expectations of me, my teachers are critical of my academic performance, competition with my peers for grade is quite intense. This study shows teachers have unrealistic expectations of me with a *p*-value of 0.029, the unrealistic expectations of my parents stress me out with a *p*-value <0.001, and examination times were stressful to me *p*-value of 0.001 was found to be significantly associated with academic stress. Similar findings were found in a study conducted parental expectations positively influenced academic stress in premedical students of Pakistan whereas it did not predict academic satisfaction. [22] Another study conducted among 597 freshmen students in a state college in the Philippines revealed a significant association with p=0.001 between perceived parents'/teachers' expectations as a source of academic stress between different genders. [23]

A similar study conducted on undergraduate dental students in Madrid, Spain shows that experiencing a higher level of stress during the examination period was found to be associated with poorer average grades (β=−0.21, p<0.01).[24] Study demonstrated that parental pressure to achieve academic success could contribute to elevated levels of academic stress among students. Specifically, the finding that parental expectations positively predicted academic stress among premedical students.[22]

In this study the association between stress-related academic expectation and academic stress showed that competition with peers is significant and is quite intense with academic stress.[9] Likewise, factors like the unrealistic expectations of the teachers, and parents were significant in increasing the stress level of the students.[2] A study conducted in Pakistan reported that the students are stressed somewhat at least once during their student life. The main stressors were found to be the unrealistic expectations of their parents, examination pressure, and fear of failure.[25] Similarly, the study conducted in Mysore, India about the perceived stress and sources of stress reported that most of the students considered academic-related stressors to be the source of high stress.[26] Earlier studies reported that high levels of academic stress can result in significant psychological and emotional health complications mainly anxiety, depression and suicidal thoughts.[6] However, in our study the factors like fear of getting a job after passing final year, the confidence of students regarding the success in a future career, fear of failure in the course were significant with the academic stress.

Results from stress related to academic self-performance showed

"Am confident that I will be a successful student" p-value 0.005, "Am confident that I will be successful in my future career" p-value 0.001, "I can make academic decisions easily" p-value <0.001, "I fear failing courses this year" p = <0.001, "I think that my worry about examinations is weakness of character" p-value <0.001, "Even if I pass my exams, am worried about getting a job" p-value <0.001 were found to be significantly associated with high academic stress. A prospective study conducted in Vienna Medical School among 647 freshman students revealed three factors relevant to predicting academic success male sex, German as mother tongue, and good performance in secondary school.[27] Additional sources, which are frequently connected to students' opinions of their academic selves, include test results about personality traits, IQ, prior academic performance, and other contextual and psychological factors. According to a study, students who have negative thoughts about exams and overestimate the repercussions of failing or undervalue their talents tend to perform worse and experience higher levels of anxiety.[28] Furthermore, in this study while describing the stress related to the perception of academic self-performance of the students, most (74.5%) reported that they are positive about being successful students and was easy for them to make academic decisions by themselves. The students were mostly worried about the fear of not getting a proper job after passing the final year rather than worrying about the examination. Supporting this study, a study conducted to see the effect of students' engagement on their academic performance reported that, cognitive engagement and a sense of academic self-efficacy and academic motivation can predict the academic performance of the students.[4]

Overall, the study showed that academic stress is significantly associated with the student's academic expectations and students' self-perception of academic performance. The major supporting factors to academic stress were found to be parental expectations, peer influence, examinations and fear of future careers. Similar findings were found in existing studies that report academic stressors to be the most powerful stressors and besides, that the expectations from parents and teachers also influence the academic performance of students.[25, 26]

CONCLUSION

The most of students were female with a median age of 23 years in the Bachelor of Public Health stream. A considerable number of students had low academic stress. This study showed that there was an association between academic expectation, academic perception, and academic stress. It shows that the level of academic stress is influenced by their academic expectation and academic perceptions.

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CONFLICT OF INTEREST: None

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