STRESSORS AMONG STUDENTS OF A SCHOOL OF RUPANDEHI, NEPAL

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ABSTRACT

INTRODUCTION

The American Institute of Stress (2018) defines stress as an emotional disturbance or change caused by stressors. According to the World Health Organization (WHO), approximately 4% of the global population experiences anxiety and stress disorders. Students often face incompatibility between their mental, physical, and social development, as well as difficulties adapting to their environment. Such challenges may lead to psychological problems and deviant behaviors.

MATERIAL AND METHODS

A cross-sectional study was conducted to determine the level of stress and its stressors among 175 students at Namuna Secondary School, Bhairahawa, Nepal. A random sampling technique was used. Data were collected using the Perceived Stress Scale-14 and pre-tested semi-structured questionnaire. Analysis was performed using descriptive and inferential statistics with SPSS version 16.

RESULTS

The study findings revealed that, 44% of students experienced mild stress, while 56% students experienced moderate stress. Bivariate logistic regressions analysis indicated associations between the level of stress and frequency of examination (AOR=2.36, 95% CI:1.102-5.061, p=0.027), poor parental relation (AOR=2.13, 95% CI: 1.014-4.509, p=0.046) and inability to fulfill basic needs (AOR= 2.11, 95% CI: 1.049-4.258, p=0.036).

CONCLUSION

Stress among school children is a growing concern in today's fast-paced and competitive world. Addressing stress among school children is essential for their overall development. Parents, teachers, and society must work together to create a nurturing environment that fosters both academic success and emotional well-being.

KEYWORDS

Stress level, Stressor, Higher secondary students

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INTRODUCTION

Stress can be defined as a particular relationship between the person and the environment that is appraised by the person as exceeding his or her resources and endangering well-being.[1] Similarly, Selye described stress as "the nonspecific response of the body to any demand made upon it.[2]

Stressors may originate from various sources including physical environment (e.g., excessive noise, bright lights, extreme temperatures, traffic), social and relational domains (e.g., conflict with peers, lack of social support, loneliness), financial burdens (e.g., unpaid bills, unplanned expenses), and organizational pressures (e.g., strict rules, deadlines, high work or academic demands).[3]

Children and adolescents are particularly vulnerable to stress due to their developmental stage and limited emotional resources. Common causes of stress in children include family-related issues such as domestic abuse, parental separation, or the loss of a loved one.[4] School-related factors, including academic performance pressure, examinations, and the challenges of forming new peer groups, are also significant contributors.[5] The increased exposure of adolescents to social media and global issues, such as climate change and discrimination, further exacerbates stress.[6]

Adolescence is a critical period full of changes, and it must be carefully managed if teenagers are to develop properly.[7] Although some of the problems of adolescence do not originate in the school environment, they may still impact students' academic performance.[8] Williams[9] maintains that we must attend to the social, physical, and psychological needs of teenagers to prevent the possible negative effects of adolescent stress on health and academic performance.[10]

MATERIAL AND METHODS

A cross-sectional study was conducted to assess the level of stress and its associated stressors among 175 higher secondary students at Namuna Secondary School, Bhairahawa, Nepal. A simple random sampling technique was used. Data were collected using the Perceived Stress Scale-14 and pre-tested semi-structured questionnaire were used over three months of period (September 2024 to November 2024). The data were analyzed by using descriptive and inferential statistics with SPSS version16.

The sample size was calculated by using the Cochran's formula: $n=Z^2p(1-p)/d^2$.

The Prevalence=86.9%[11]=0.869, q=(1-p)=0.131, d=0.05
Thus, the calculated sample size was 174.9, that was 175

Ethical approval was obtained from the Institutional Review Committee (IRC) of Universal College of Medical Sciences, Teaching Hospital, Bhairahawa (Reference number UCMS/IRC/031/24). Administrative approval was also granted by the principal of Namuna Secondary School of Bhairahawa, prior to data collection. Written assent consent was obtained from participants under the age of 18 years, while informed consent was secured from participants from aged 18 years and above after clarifying the objectives.

RESULTS

Out of 175 respondents, 81.7% were aged between 15-18 years, while 18.3% were between 19-22 years. Regarding gender, 46.9% were male and 53.1% were female. In terms of educational level, 53.7% were enrolled in class 11 and 46.3% were in class 12 respectively. Among the respondents, 15.4%, 41.7%, 41.75 and 1.2% were from Science, Humanities, Management and Education streams respectively. Concerning family type, 69.7% belonged to nuclear families and 30.3% to joined families.

With respect to academic stress, 72.6% of respondents reported stress due to frequent examinations, while 46.3% had dissatisfied with class lectures. Regarding psychological stress, 62.3% experienced stress due to high parental expectations, and 20% reported stress related to relationship problems with boyfriend/girlfriend. In terms of financial stress, 48.6% were stressed due to can't pay school fees on time, and 30.3% reported stress due to parent's job loss.

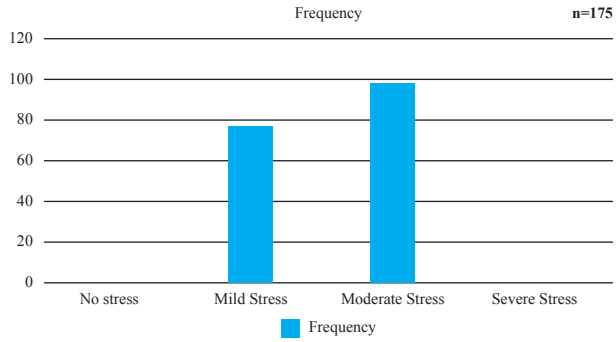

Figure 1. Distribution of stress level

Figure 1 indicates that 77 (44%) of respondents experienced mild stress, while 98 (56%) experienced moderate stress. Female students reported higher stress levels compared to male students, with 63.5% and 47.6% respectively.

Table 1. Association between respondents' stress levels and socio-demographic variables

Variables	Level of Stress		$\chi 2$	*p* value
	Mild No. (%)	Moderate No. (%)		
Age in years				
15-18	63 (44.1)	80 (55.9)	0.01	0.975
1922	14 (43.7)	18 (56.3)		
Gender				
Male	43 (52.4)	39 (47.6)	4.46	0.035*
Female	34 (36.5.7)	59 (63.5)		
Educational level				
11	40 (42.5)	54 (57.5)	0.173	0.678
12	37 (45.7)	44 (54.3)		
Course of study				
Science	15 (55.5)	12 (44.5)	12.072	0.070
Management	21 (28.8)	52 (71.2)		
Humanities	40 (54.8)	33 (45.2)		
Education	1(50.0)	1(50.0)		
Family type				
Nuclear	56 (45.9)	66 (54.1)	0.591	0.442
Joint	21 (28.4)	32 (71.6)		

*Significance level at $p < 0.05$

Analysis of the association between respondents' stress levels and socio-demographic factors (Table 1) revealed a statistically significant relationship between stress level and gender (p=0.035). However, no statistically significant association was found stress level and age, educational level and family type.

Table 2. Association between respondents' stress levels and academic stressors

Variables	Level of Stress		χ2	*p* value
	Mild No. (%)	Moderate No. (%)		
Frequency of examinations				
Yes	46 (36.2)	81 (63.8)	11.373	0.001*
No	31 (64.6)	17 (35.4)		
Examination performance				
Yes	47 (37.6)	79 (62.7)	8.194	0.004*
No	30 (61.2)	19 (38.8)		
Academic curriculum				
Yes	37 (36.6)	64 (63.4)	5.26	0.022*
No	40 (54.1)	34 (45.9)		
Dissatisfaction with class lectures				
Yes	28 (34.6)	53 (65.4)	5.445	0.020*
No	49 (52.1)	45 (47.9)		
Choosing a career				
Yes	52 (40.9)	75 (59.1)	1.754	0.185
No	25 (52.1)	23 (47.9)		
Peer competition				
Yes	45 (42.5)	61 (57.5)	0.261	0.609
No	32 (46.4)	37 (53.6)		
Performance in practical examinations				
Yes	34 (38.6)	54 (61.4)	2.067	0.151
No	43 (49.4)	44 (50.6)		
Lack of guidance from faculty				
Yes	31 (36.5)	54 (63.5)	3.803	0.051
No	46 (51.1)	44 (48.9)		

*Significance level at p < 0.05

Table 2 indicates a statistically significant association between respondents' stress levels and the frequency of examinations (p=0.001), examination performance (p=0.004), academic curriculum (p=0.022) and dissatisfaction with class lectures (p=0.02). No statistically significant association was found between stress levels and factors such as choosing a career, peer competition, performance in practical examinations and lack of special guidance from faculty.

Table 3. Association between respondents' stress levels and psychological stressors

Variables	Level of Stress		χ2	P value
	Mild No. (%)	Moderate No. (%)		
High parental expectation				
Yes	43 (39.4)	66 (60.6)	2.429	0.119
No	34 (51.5)	32 (48.5)		
Family problems				
Yes	22 (33.3)	44 (66.7)	4.893	0.027
No	55 (50.5)	54 (49.5)		
Loneliness				
Yes	24 (42.1)	33 (57.9)	0.123	0.726
No	53 (44.9)	65 (55.1)		
Political situation of the country				
Yes	34 (48.6)	36 (51.4)	0.989	0.320
No	43 (40.9)	62 (59.1)		
Problem with peer relation				
Yes	15 (42.8)	20 (57.2)	0.023	0.879
No	62 (44.3)	78 (55.7)		
Inability to socialize				
Yes	21 (46.7)	24 (53.3)	0.175	0.670
No	56 (43.1)	74 (56.9)		
Accommodation far away from home				
Yes	29 (54.7)	24 (45.3)	3.544	0.060
No	48 (39.3)	74 (60.7)		
Poor relation with parents				
Yes	28 (57.1)	21 (42.9)	4.771	0.029*
No	49 (38.9)	77 (61.1)		

*Significance level at p < 0.05

Table 3 indicates a statistically significant association between respondents' stress levels and family problems (p=0.027), as well as poor relationships with parents (p=0.029). However, no statistically significant association between respondents' stress levels and factors such as high parental expectations, loneliness, political situation of the country, problem with peer relation, and accommodation away from home.

Table 4. Association between respondents' stress levels and financial stressors

Variables	Level of Stress		χ2	P value
	Mild No. (%)	Moderate No. (%)		
Inability to pay school fee on time				
Yes	35 (41.2)	50 (58.8)	0.535	0.465
No	42 (46.7)	48 (53.3)		
Parental job loss				
Yes	21 (39.6)	32 (60.4)	0.591	0.442
No	56 (45.9)	66 (54.1)		
Family loans				
Yes	23 (41.1)	33 (58.9)	0.287	0.592
No	54 (45.4)	65 (54.6)		
Unable to meet basic needs				
Yes	28 (35.4)	51 (64)	4.279	0.039*
No	49 (51.0)	47 (48.9)		

*Significance level at p < 0.05

Table 4 indicates a statistically significant association between respondents' stress levels and their inability to meet basic needs (p=0.039). However, no statistically significant association was found between respondents' stress levels and inability to pay school fee on time, parental job loss and family loans.

Table 5. Bivariate logistic regression between stressors and respondents' stress levels

Variables	B	AOR	95%CI for AOR		P value
			Lower	Upper	
Frequency of examinations					
Yes	0.859	2.36	1.102	5.061	0.027*
No		1			
Performance in examination					
Yes	0.710	2.03	0.927	4.464	0.077
No		1			
Academic Curriculum					
Yes	0.501	1.65	0.810	3.363	0.168
No		1			
Dissatisfaction with class lectures					
Yes	0.625	1.86	0.954	3.656	0.069
No		1			
Family problems					
Yes	0.167	1.18	0.560	2.493	0.0662
No		1			
Poor parental relationships					
Yes	0.760	2.13	1.014	4.509	0.046*
No		1			
Unable to meet basic needs					
Yes	0.748	2.11	1.049	4.258	0.036*
No		1			

'B' Unstandardized beta, 'AOR' Adjusted odds ratio, 'CI' Confidence interval and
*Significance level at p<0.05

Table 5 presents bivariate logistic regressions between stressors and respondents' stress levels, showing statistically

significant associations with frequency of examination, relationship with parents and inability to fulfill basic needs. Respondents' who experienced frequent examinations were twice as likely to report higher stress compared to those with less frequent examinations (AOR=2.36, CI: 1.102-5.061, p=0.027). Similarly, those with poor parental relationships were about twice as likely to experience stress compared to those with good parental relationships (AOR=2.13, CI: 1.014-4.509, p=0.046). In addition, respondents unable to meet basic needs were twice as likely to have stress compared to those able to meet their needs (AOR=2.11, CI: 1.049-4.258, p=0.036).

DISCUSSION

The study revealed that among 82 male participants, 52.4% experienced mild stress and 47.6% experienced moderate stress. These findings align with the results of Emmanuel et al (2014)[12] in Ghana, where 52.6% of male students reported mild stress and 47.45% reported moderate stress. However, the present findings differ from the stress levels observed among female students in this study, where 42.9% experienced mild stress and 57.1% moderate stress. In comparison, the current study found that 36.6% of females had mild stress, while 63.5% had moderate stress.

The study also indicated that 72.6% of respondents reported stress due to the frequency of examinations, 72% due to performance in examinations, and 72.6% due to career choice. Additionally, 37.7% reported stress from family problems, 20% from relationship issues, 46.3% from dissatisfaction with class lectures, 48.4% from an inability to pay school fees on time, and 45.1% from being unable to meet basic needs. These results differ from those reported by Gomez et al (2018)[13] in Mexico, where stress due to exams, career choice, family issues, economic challenges, problem with boy/ girlfriend and teachers was reported at 49%, 12.83%, 9.54%, 11.89%, 4.93%, and 2.96%, respectively.

Furthermore, the findings showed that 62.3% of respondents experienced stress due to high parental expectations. This result is consistent with Deb et al (2015)[14] in India, who reported 66% stress prevalence due to parental pressure for academic performance.

Additionally, 60% of respondents reported stress due to competition with peers, a result that contrasts with Gul N. et al (2024)[15] in Pakistan, where 74% reported such stress.

The study found no statistically significant association between respondents' stress levels and age (p=0.975). This contrasts with Kaushal et al (2018)[16] in Gwalior, India, who found a statistically significant association between stress levels and age (p<0.01).

The study found a statistically significant association between respondents' stress levels and sex (p=0.035). This finding aligns with the results of Gomez et al (2018)[13] in Mexico, which also reported a significant association between stress levels and sex (p=0.028).

In contrast, no statistically significant association was observed between respondents' stress levels and education level (p=0.678). This differs from the findings of Kaushal et al (2018)[16] in Gwalior, India, which reported a significant association between stress levels and education level (p<0.01). Similarly, no statistically significant association was found between stress levels and course of study (p=0.07).

CONCLUSION

The study concludes that more than half of the respondents experience a moderate level of stress. Nearly three-quarters reported stress related to the frequency of examinations and academic performance. Students facing frequent examinations, strained parental relationships, and an inability to meet basic needs were twice as likely to experience stress. Early intervention and consistent support can help children navigate challenges confidently and grow into resilient individuals. This study was conducted in a single school in Bhairahawa, and included only students from grades 11 and 12. Therefore, the findings may not be generalized to other setting.

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CONFLICT OF INTEREST

None

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