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Academic stress among intermediate students in relation to selected demographic factors

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Abstract
Academic problems are major common sources of stress for students. Students have to face too much competition and they are constantly under a lot of pressure due to the expectations of their parents, teachers, and peers, and they are anxious about their careers and future. It is important to study the factors which contribute to stress. This study sought to examine the level of academic stress among students studying in intermediate colleges. It also attempted to explore the differences in academic stress among students in terms of select demographic factors. A sample of 165 students studying in intermediate colleges of Azamgarh District of Uttar Pradesh, India was selected. The data was collected using Academic Stress Questionnaire developed by Akram, Khan, and Baby (2013). Results include that there was no significant difference in academic stress among students based on the type of school organization, medium, and type of family. While academic stress of male students was found to be significantly higher than female students. Similarly, the academic stress of the students of the science stream was significantly higher than the students of the arts stream.

Keywords: Academic stress, mental health, intermediate students

Introduction
The modern age has been rightly called the age of anxiety and stress. Stress affects individuals of all ages, gender, and social background. For students, academic related problems are among major sources of stress. Mental health problems among students are an increasing concern in India and worldwide. Among many psychological issues which the population is facing, depression, anxiety, and stress are the most common. Students have to face too much competition and they are constantly under a lot of pressure due to the expectations of their parents, teachers, and peers, and they are anxious about their careers and future. Failing to adjust and cope with the situation results in stress, anxiety, and depression. It is important to understand and study the factors which contribute to these psychological issues.

Everyone experiences stress. It's a normal part of everybody's life. From everyday hassles, such as traffic, to major life incidents and changes, for example the death of a close relative, a new job, and marriage induce some kind of stress response in a person. Selye (1974) [1] defines stress as "the nonspecific response of the body to any demand made upon him" (p. 14). A moderate amount of stress depending upon the situation is necessary as it can help motivate people and stimulate and mobilize them to respond adequately to deal with stressful situations effectively. But if a person's response is not effective or he finds himself not being able to cope with the stressor and he fails to reduce or remove it, it becomes problematic. Due to these unabated stressors, the body may succumb to the negative effects of stress and it can result in poor health or chronic illness. It can also lead to frustration, anger, anxiety, sadness, and depression (Carver, 2007) [2].

What exactly defines stress? Different models have been proposed that differ in terms of focus and emphasis. Selye's definition of stress is proposed according to the response-based perspective. Selye emphasized on physiological response patterns of an organism besieged by environmental demands which he termed "stressors"(Selye, 1974) [1]. Another major perspective to studying stress is the cognitive transactional model of stress proposed by Lazarus and Folkman. From a psychological perspective defining stress, Lazarus and Folkman (1984) [3] state, "psychological stress is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her

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resources and endangering his or her well being." (p. 19). The transactional model assumes stress exists when transactions occur between the person, environment, and task (Lazarus & Folkman, 1984) [3]. When the person has to deal with a situation that he perceives as exceeding his ability and available resources, he experiences stress. Stress is caused by a person's appraisal of circumstances rather than by objective circumstances. To evaluate the situation and respond accordingly, the person makes the cognitive appraisal. "A cognitive appraisal is an evaluation of the potential significance of a situation, along with one's ability to control it." (White, 2008, p. 1171) [4]. The appraisal is based on both information in the situation and information inside the person.

Academic stress is defined as the mental pressure caused by academic-related demands. When students are exposed to excessive academic workload, the heavy burden of learning, and complex educational concepts, it causes stress. Either these academic-related demands exceed the resources available to them, or they perceive it to lack the required skills and resources to cope with these demands, they feel stressed. Academic-related factors are significant contributors to stress in adolescents. According to Verma and Gupta (1990) [5], academic stress is "mental distress concerning some anticipated frustration associated with academic failure, the anticipation of such failure, or even an awareness of the possibility of failure." Academic stress is explained as discomfort and disturbance caused by a student's appraisal of academic stressors. A lot of pressure is caused by school life. There are frequent tests, labs, quizzes, and so on. Students have to do a lot of homework and assignments. They find very little time to relax even after school hours. Frequent tests, challenging assignments, lack of time, too much homework, uncertainty about the future, poor administration, poor time management skills, poor social relationships, and high competition are among the major potential sources of stress for students. Increasing research findings corroborate the fact that stress can result in poor health. Its psychological consequences include frustration, anger, sadness, fear, anxiety, and suicide ideation (Carver, 2007 & Fink, 2016) [2, 6]. It is noteworthy that individual differences are important factors determining the impact of stress on students. This study is aimed at studying stress among the students in relation to some select demographic factors.

Review of Literature
Fooladvand *et al*. (2017) [7] examined the role of academic stress on the mental and physical health of Iranian students. The results revealed that a higher level of mental and physical health was associated with a low level of academic stress. Liu (2017) [8] sought to investigate the link between academic stress, depression, and anxiety symptoms. Poor academic achievement was found to be the risk factor for academic stress, as well as academic stress was found to be the strongest factor for depression and anxiety symptoms. Deb *et al*. (2014) [9] researched academic stress among Indian private school students. All students reported a higher level of stress, and academic stress level among the students who had lower grade scores was significantly higher than the students with higher grade scores. Chellamuthu and Kadhiravan's (2012) [10] research concluded that students of private schools reported experiencing higher academic stress than students of

government schools. Results of the study conducted by Agarwal (2011) [11] revealed that academic stress of the students studying in class 10th and 12th was found to be having a significant inverse correlation with students' academic achievement as well as their mental health. It also revealed that no significant difference existed in academic stress among students on the basis of their gender. Tabassum's (2009) [12] study findings indicated that the academic stress of students was negatively correlated with their achievement motivation and study habits. It also revealed that academic stress among female students was significantly higher than male students.

Objectives
The objectives of the study are as follows
1. To examine the level of academic stress among students studying in intermediate colleges
2. To investigate the difference in academic stress among male and female students
3. To investigate the difference in academic stress among government and private students
4. To investigate the difference in academic stress among English and Hindi medium students
5. To investigate the difference in academic stress among students of Arts and Science stream
6. To investigate the difference in academic stress among students living in nuclear and joint family

Hypotheses
To test the differences between the mean scores of academic stress of students, following null hypotheses were framed:
1. There would be no significant difference in academic stress among male and female students.
2. There would be no significant difference in academic stress among government and private students.
3. There would be no significant difference in academic stress among English and Hindi medium students.
4. There would be no significant difference in academic stress among students of the Arts and Science stream.
5. There would be no significant difference in academic stress among students living in nuclear and joint families.

Research Method
As the objectives of the study suggest, the study is descriptive in nature. Hence, a descriptive survey method was adopted. The target population comprised the students studying in intermediate colleges of Azamgarh District of Uttar Pradesh, India. As a sample, 165 students (76 males and 89 females) from 6 intermediate colleges were selected using the stratified random sampling technique. Category-wise distribution of the participants is shown in table 1.

Table 1: Demographic Variable wise Distribution of Participants

	Gender		Stream		Type of School	
	Male	Female	Science	Arts	Government	Private
Frequency	76	89	111	54	84	81
Percentage	46.1	53.9	67.3	32.7	50.9	49.1

Research Tool
The data on the academic stress of the students was collected through the Academic Stress Questionnaire developed by Akram, Khan, and Baby (2013). The questionnaire consists of 36 items and five factors namely

inadequate academic environment in the college, lack of adjustment, apprehensive about the future, poor administration, and worries. The reliability of the tool is .82 that was determined by Cronbach's alpha test. The range of the factorial construct validity is from 0.41 to 0.88.

Procedure
A total of 180 students from 5 intermediate colleges were selected but only 165 students were taken as valid participants. 15 participants whose responses were incomplete were deemed to be invalid and were excluded. Before administering the tool, permission from the principals of respective inter colleges was sought. Participants were given clear instructions about how to indicate their responses. Obtained data was organized, coded, and entered in MS Excel. IBM SPSS version 26 was used for statistical analysis of the data. SPSS outputs were carefully analyzed and interpreted to test the hypotheses and accomplish objectives.

Statistical Analysis
Descriptive statistics such as mean and standard deviation were performed to find out the level of academic stress of the students. Lavene's test was used to check the homogeneity of the variances of the data. Independent samples t-test was applied to test if there were differences between the mean scores of the variables.

Results and Discussion
Results of the study revealed that the overall academic stress scores of the respondents ranged from 43 to 113 with a mean score of 74.12 and a standard deviation of 17.97. Based on their score, respondents were distributed into the following three levels of academic stress:

Table 2: Distribution of Respondents According to Their Level of Academic Stress

Level of Academic Stress	Frequency	%
Low Academic Stress	41	24.85
Moderate Academic Stress	85	51.51
High Academic Stress	39	23.64
Total	165	100.0

The distribution in table 2 shows that a little more than half of the students (51.51%) reported experiencing a moderate level of academic stress, while 24.85% and 23.64% of them reported having low and high levels of academic stress respectively.

To test if there were differences in academic stress scores among select groups of the students an independent samples t-test was run with level of significance set at 5% (α=.05). Results of the independent samples t-test revealed that male and female students differed significantly in experiencing academic stress.

Table 3: Difference in Academic Stress Scores between Male and Female Students

Gender	n	M	SD	t	p
Male	76	78.17	16.44	2.75	.007*
Female	89	70.66	18.57		

*p< 0.05 level

As shown in Table 3, male students ($M = 78.17$, $SD = 16.44$) reported experiencing higher academic stress than

did their female counterparts ($M = 70.66$, $SD = 18.57$), $t(163) = 2.75$, $p = .007$. Hence, the null hypothesis was rejected and it was concluded that there was significant difference in academic stress between male and female students at the specified .05 level.

Table 4: Difference in Academic Stress between Government and Private Intermediate Students

Type of School Organization	n	M	SD	t	p
Government	84	71.93	18.50	-1.60	.111
Private	81	76.40	17.20		

As shown in Table 4, despite private students ($M = 76.40$, $SD = 17.20$) experiencing higher academic stress as compared to government students ($M = 71.93$, $SD = 18.50$), the mean difference between the two groups was not statistically significant, $t(163) = -1.60$, $p = .111$. Hence, the null hypothesis was accepted and it was concluded that the difference in the academic stress scores between government and private intermediate college students was not statistically significant.

Table 5: Difference in Academic Stress between English and Hindi medium Students

Medium	n	M	SD	t	p
English	82	72.66	17.82	-1.04	.300
Hindi	83	75.57	18.10		

Table 5 shows that the mean difference in academic stress scores between English medium students ($M = 72.66$, $SD = 17.82$) and Hindi medium students ($M = 75.57$, $SD = 18.10$) was not statistically significant, $t(163) = -1.04$, $p = .300$. Hence, the null hypothesis was accepted and it was concluded that the difference in the academic stress scores between English and Hindi medium students was not statistically significant.

Table 6: Difference in Academic Stress between Students of Science and Arts Stream

Stream	n	M	SD	t	p
Science	111	79.07	16.90	5.51	.000*
Arts	54	63.94	15.80		

*p< 0.05

As shown in Table 6, students of science stream ($M = 79.07$, $SD = 16.90$) reported experiencing higher academic stress as compared to their counterparts from arts stream ($M = 63.94$, $SD = 15.80$), $t(163) = 5.51$, $p = .000$. Hence, the null hypothesis was rejected and it was concluded that the difference in academic stress between students of science and arts stream was statistically significant and students of the science stream were found to be experiencing higher academic stress than their counterparts from the arts stream.

Table 7: Difference in Academic Stress between Students Living in Nuclear and Joint Family

Type of Family	n	M	SD	t	p
Nuclear	78	74.08	19.38	-.160	.873
Joint	85	74.53	16.65		

Table 7 shows that the mean difference in academic stress scores between students living in nuclear family ($M = 74.08$, $SD = 19.38$) and students living in joint family ($M = 74.53$, $SD = 16.65$) was not statistically significant, $t(161) = -.160$,

$p = .873$. Hence, the null hypothesis was accepted and it was inferred that the difference in the academic stress scores between students living in nuclear family and those living in joint family was not statistically significant.

Discussion

The results of the study revealed that although about one fourth of the students reported experiencing high level and low level of academic stress apiece, majority of them (51.51%) reported to have moderate level of academic stress. This result is in agreement with the results of some other studies on academic stress (Elias *et al*., 2011; Noorunissa, 2018; Panor & Hangsing, 2019; Prabu, 2015) [13, 14, 15, 16].

On the basis of gender, prevalence academic stress among students differed significantly. Male students reported experiencing significantly higher academic stress than female students. Similar finding has been reported in some previous studies (Panor & Hangsing, 2019; Prabu, 2015) [15, 16]. A possible explanation for this finding might be that the students in the present study are from a small city. In socio-cultural environment of small cities and towns, gender roles generally place the responsibility of earning livelihood on men. It might be a major contributing factor for male students in experiencing higher level of stress regarding their future career as is the case in this study that the academic stress scores of male students on the component 'Apprehensive about Future' was found to be significantly higher than those of female students. Although, it should be noted that there are contrasting results, as several studies (Dhull & Kumari, 2015; Ghosh, 2016; Tabassum, 2009) [17, 18, 12] reported the prevalence of higher academic stress among female students than their male counterparts while in other studies (Agarwal, 2011; Bartwal & Raj, 2013) [11, 19] difference in academic stress among students was not found to be significant.

Other than gender, stream of education was the only variable found to be the basis of difference in the students' academic stress. Students of the science stream were found to be experiencing higher academic stress than their counterparts from the arts stream. This finding agrees with findings obtained in previous studies (Noorunissa, 2018; Prabu, 2015 Sumalatha, 2013) [14, 16, 20]. A plausible interpretation of this finding is that students of science stream have to bear extra burden of academic work in terms of assignments and practicals. As well as they have to face stiff competition in order to get admission in higher classes and secure a good career of their choice.

Regarding the variable of type of school organization, results yielded no significant difference in academic stress based on it, despite the mean score of the students of private schools being higher than that of the students of government schools. A number of previous studies (Khan & Alam, 2015; Lal, 2013; Noorunissa, 2018; Panor & Hangsing, 2019) [21, 22, 14, 15] have also shown this result. Regarding the variable of type of family, there was no significant difference in academic stress that is consistent with the findings of Sumalatha, 2013; Noorunissa, 2018; and Prabu, 2015 [21, 14, 16]. Similarly, on the basis of medium of instruction, students didn't differ significantly in experiencing academic stress. This result was also found in the study of Noorunissa, 2018 [14].

Conclusion

Analysis and interpretation of the data revealed that half of the students (51.5%) reported having a moderate level of academic stress, while one-fourth of the students had low levels and the remaining one-fourth of them had a high level of academic stress. Results of the independent samples t-test revealed that significant differences in academic stress of students existed in terms of their gender and stream of education, while in terms of type of school organization, family type, and medium of instruction, no significant difference was found. Male students reported experiencing higher academic stress than their female counterparts. Similarly, the academic stress of students from the science stream was found to be significantly higher than that of students from the arts stream.

Educational Implications

As it is evident from the findings of the study that every student experiences some level of academic stress and it is part of academic life. So eliminating stress is not possible and should not be the end goal. Instead, teachers and parents should ensure that the students, especially science stream students are not overwhelmed when they have faced a high-pressure academic situation because it will have a detrimental effect on their mental health and academic performance. Students must be prepared to make stress work to their advantage. Only then they would be less concerned about stress and would focus more on the task at hand resulting in better and improved academic performance.

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