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Original Article

Academic Stress among Adolescents in Private and Government Secondary Schools of Patna

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Abstract

In this study, the authors explored the variation in academic stress among the adolescent students of the secondary schools in Patna, Bihar, in a study that involved both private and government schools. The study sought to establish whether the institutional type had any effect on perceived academic stress levels. The quantitative comparative design was adopted, and 200 students were chosen using stratified random sampling. Academic stress was evaluated using a standardized scale of reliability. Descriptive statistics and an independent trials t-test were used to analyse the data. Results have showed that the level of stress was much higher among the students in the private schools as compared to government schools, and the effect size is also large. These results imply that the competitive academic environments and academic achievement expectations can be the causes of higher stress, and the organized school-based mental health assistance is necessary.

Introduction

Academic stress has been taking center stage as a prominent psychological issue among adolescents, especially in a structured and examination-oriented education system. The years in secondary school are a very important developmental period characterized by identity formation, emotional sensitivity, and increased sensitivity to environmental needs. As a student progresses through this phase, academics can be extremely stressful with board exams, career planning, and parental hopes and dreams. In cases where the academic demands exceed the coping capacity of students, stress responses can be expressed in emotional, cognitive, and behavioural areas.

The theoretical knowledge of stress in educational contexts is commonly expounded by the transactional model of stress introduced by Lazarus and Folkman (1984), which claims that stress occurs when a relationship exists between the environmental requirements and personal appraisal mechanisms. To this school of thought, academic stress is not produced by workload or exams, but through the fact that students perceive and appraise these demands in a particular way. Thus, institutional context can be of great impact on stress perception.

Among the Indian education fraternity, academic success is often associated with social mobility and career occupational achievement. Students tend to focus a lot on academic results, especially in secondary school, which are heavily emphasized by their families. Empirical data has demonstrated that long-lasting academic pressure could be an effective cause of anxiety symptoms, sleeping disturbances, decreased concentration, and emotional exhaustion (Deb et al., 2015). Moreover, teenagers who have to face constant educational pressure can lose their well-being and reduce their academic interest in the long run. School setting is a very important contextual variable that determines the theoretical experience of the pupils. Indian schools (both private as well as government) are markedly different with regard to infrastructure, distribution of resources, teacher expectations, and evaluation, as well as parental participation. Urban centres also tend to create a competitive culture of academic institutions, good performance standards, and organised extra-curricular activities.

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Government schools, on the other hand, might be able to work with relatively smaller resources and occasionally in less performance-oriented environments. Past studies have investigated academic stress among youthful Indians, but the results are inconclusive. Verma et al. (2002) reported high levels of stress in students who were subjected to the intensive examination systems. On the same note, research studies carried out in urban learning institutions found that competitive learning conditions were correlated with an increased perception of stress. On the other hand, other studies have opined that stress can also be a result of resource inadequacy and academic uncertainty in institutions that are not well-resourced. These contradictory results suggest that local comparative studies are required.

The capital of Bihar, Patna, is the city that has experienced a fast rate of educational growth over the last few years. The increased number of secondary schools that are privately owned has heightened the competition and performance pressure of the schools. At the same time, government schools still provide a large number of students with different socioeconomic statuses. Although this is a dual institutional structure, up till now there is little empirical evidence comparing the levels of academic stress in these types of schools in Patna. The majority of studies available have either studied a larger regional sample or have failed to differentiate between categories of institutions. This limitation limits the knowledge of the role of educational context in a particular urban context on the experience of adolescent stress.

Comparison analysis is especially significant in the development of specific mental health programs. In case there is an increase in the stresses of the students in the private schools due to pressures of competitiveness, then the preventive programs might have to be based on stress management training, cognitive restructuring, and balanced planning of the academics. Or, when there is a high level of stress among the students in government schools associated with structural issues, the policy level may be considered appropriate. Institutional strategies are speculative without empirical evidence.

This gap was intended to be bridged by the present study, which was expected to compare academic stress in adolescents studying in government as well as private secondary schools in Patna systematically. The study centered on a narrow geographic area and level of education to create some context-specific evidence applicable to teachers, school leaders, and policy makers.

The hypotheses that were used in the study were as follows:

H1. Academic stress of students in the private and government secondary schools in Patna has a statistically significant variance.

H2. Students in the private secondary schools experience high levels of academic pressure as compared to students in government-run secondary schools.

Besides the action of establishing statistical significance, there was also the need of the study to estimate the level of difference between groups. The inclusion of the effect size reporting and the significance testing will increase the interpretational clarity and correspond to the modern APA standards of research.

This study will help in a deeper appreciation of academic stress among adolescents by placing institutional comparison within a theoretical framework of stress and an empirical setting. The results will educate evidence-based official educational practices and support frameworks that stimulate psychological well-being throughout an important development phase.

Method

Research Design

The cross-sectional relative design used in the study was quantitative. The main aim was to investigate the significant difference in academic stress between students who are studying in a private and government secondary school in Patna, Bihar. The independent variable was school type (private and government), whilst academic stress was the dependent variable.

Participants

A total of 200 adolescents studying in Classes IX and X in Patna were taken as the sample. A total of one hundred students were picked in private secondary schools and 100 government secondary schools. The age of the participants was among 14 and 16 (M = 15.02, SD = 0.71). Both female and male students were taken.

The sampling was stratified so that the school type is equally represented. Schools were chosen according to the administrative approval and availability within the city limits of Patna. In each school, the list of students was received, and the participants were selected randomly. The inclusion criteria were regular school attendance and parental consent.

Ethical Considerations

School authorities gave approval on the data collection. Parents or guardians were informed about the study and gave written informed consent before taking part. Students were made to realize that their contribution would be voluntary, in addition to responses would not be disclosed. No significant data was documented.

Instrument

A standardized Academic Stress Scale among adolescents was used to determine academic stress. The instrument had 40 items that evaluated the pressure of examination, parental expectations, trying against a peer, workload, and anxiety of failing in study. The answers were noted on a five-point Likert Scale with a 1 (Strongly Disagree) to 5

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(Strongly Agree) scale. Overall potential scores were between 40 and 200, with the higher score, the greater perceived academic stress.

The scale demonstrated strong internal consistency in previous research (α > .80). In the current study, Cronbach's alpha was calculated as .86, indicating satisfactory reliability.

Procedure

The scale has proven to have an excellent internal consistency in past studies (alpha >.80). The alpha of Cronbach was determined as .86 in the current study, which means that it is rather satisfactory.

Statistical Analysis

Data were entered into statistical software and screened for errors. Descriptive statistics (mean and standard deviation) were intended for both groups.

Before conducting inferential analysis, assumptions were tested:

- Normality was assessed using Shapiro–Wilk tests and visual inspection of histograms.
- Homogeneity of variance was examined using Levene's Test.

An independent samples t-test was achieved to compare mean academic stress scores among private and government school students. The level of statistical significance was set at .05. Effect size was calculated by Cohen's d to determine the magnitude of cohort difference.

Results

Preliminary Analysis

Shapiro–Wilk tests showed that academic stress scores were usually distributed in both groups ($p > .05$). Histogram inspection showed approximately symmetric distributions.

Levene's Test for Equality of Alterations was non-significant, $F(1,198) = 1.27$, $p = .26$, representing that the assumption of homogeneity of difference was satisfied.

Therefore, the autonomous samples t-test was conducted using equal variances assumed.

Descriptive Statistics

Descriptive statistics for academic stress scores are existing in Table 1.

Table 1: *Mean and Standard Deviation of Academic Stress Scores by School Type*

School Type	N	Mean (M)	Standard Deviation (SD)
Private Schools	100	142.35	18.42
Government Schools	100	128.17	16.75

Private school students demonstrated higher academic stress (M = 142.35, SD = 18.42) compared to government school students (M = 128.17, SD = 16.75).

Inferential Statistics

An autonomous samples t-test was conducted to examine group differences.

The analysis revealed a statistically significant variance in academic stress between private and government school students:

$$t(198) = 5.69, p < .001, 95\%\ CI\ [9.27, 19.09]$$

The mean variance among groups was 14.18 points.

Effect Size

Cohen's d was considered to determine the magnitude of the variance.

The pooled standard deviation was 17.60.

$$Cohen's\ d = 0.81.$$

According to conventional benchmarks, a value of 0.80 represents a large effect size. This indicated that the variance in academic stress among private and government school students was not only statistically significant but also essentially meaningful.

Graphical Representation

Figure 1: *Mean Academic Stress Scores of Private and Government School Students*

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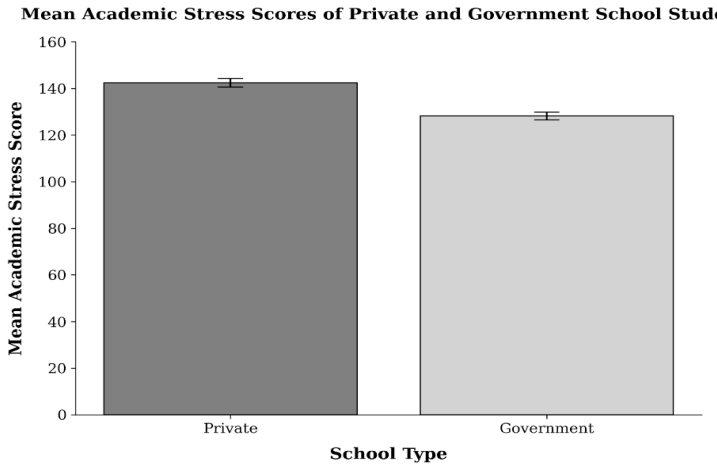

X-axis: School Type (Private, Government)
Y-axis: Mean Academic Stress Score

The bar graph indicated a greater mean academic stress of the students enrolled in the private school as compared to those in the government school. One standard error above and below the mean was used as error bars.
Standard Error values:

- Private Schools: SE = 1.84
- Government Schools: SE = 1.68

The statistical results were validated by the visual pattern by showing a clear distance between the group means.

No further subgroup comparisons were done in this study. The hypotheses that were specifically analysed revolved around the institutional differences in academic stress.

Discussion

The current study involved the exploration of academic stress differences between adolescents who learn in a private and government secondary school in Patna. The results indicated that the students of the private schools had much more academic stress than those of the government schools. The difference was statistically significant, and it presented a strong practical effect (Cohen d = 0.81), which implies that there is a significant variation between institutional settings.

Both hypotheses in research were proved. First, it was found that the level of stress varied enormously depending on the type of school. Second, students in private schools experienced more stress. These results can be related to transactional stress theory that underlines the idea that stress arises when environmental demands are evaluated to be more than personal coping resources (Lazarus and Folkman, 1984). Students might experience more evaluative pressure in academically competitive environments, therefore, escalating stress responses.

The focus of private secondary schools is mostly on academic performance in urban areas, ranking of performance, and exam results. These institutional cultures can result in conditions where constant evaluation and parental surveillance increase the perceived academic threat. It was suggested by previous studies that performance-focused climates are associated with high levels of anxiety and emotional distress among adolescents (Deb et al., 2015). This evidence has been stretched to the existing context of Patna by using the current findings.

Students in government schools had a relatively lower level of academic stress. This result might be because of the variations in the institutional expectations, competition in the classroom, and parental academic pressure. It should also be mentioned that the reduced level of stress does not always mean that there are no difficulties. Rather, stress can occur in different ways based on the demands of a situation. It is likely that the valuation of academic demands is dependent on perceived outcomes of performance.

The magnitude of the effect in this study is quite big, which implies that institutional context has a significant impact on the development of academic stress. The present finding can be added to the wider body of literature because it has shown that educational organization and the degree of competition can be important environmental factors that can determine psychological experiences among adolescents. This comparative design stands out compared to other studies that investigate stress among aggregate student populations because it gives a better understanding of the role of institutional differences in the perception of stress. The findings are also in tandem with other previous studies done in the Indian educational environment. Verma et al. (2002) recorded that academic strain was high in relation to examination systems. On the same note, Deb et al. (2015) revealed that there were strong correlations between parental expectations and stress of high school students. The current paper combines these schools of thought by arguing that institutional type can be used as a setting that intensifies these pressures.

Nonetheless, the results must be viewed within the realms of theory as well as practice. Although the stress scores of the students of the private schools were higher, stress is not always bad. Middle stresses can act as performance

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motivators. The fear comes about when stress is chronic or immense. Consequently, it should not be about getting rid of the challenge of the academic task but about developing adaptive coping skills.

Practical Implications

The inferences of the results to education practice as well as policy are significant. The use of formalized stress management interventions in academic programs by private schools should be considered. Cognitive coping strategies, time management, and relaxation techniques could be used through workshops conducted by school counsellors. Teachers can also review the procedure of assessment so that the performance appraisal does not unintentionally increase the psychological load.

The low average stress in government schools should not overlook the mental health of students. All institutional realities can be helped with preventive mental health education, resilience-building activities, and positive teacher-student communication. Some of the policy-level interventions can involve the integration of socio-emotional learning units into school curricula.

On a bigger scale, the research highlights the need to balance between academic perfection and psychological health. Schools that place emphasis on holistic development can be used to minimize long-term effects of emotional responses that come with high academic pressure.

Limitations

Although it made some contributions, there are a number of limitations that have to be noted. To begin with, the research was limited to secondary schools in Patna. The generalizability may be constrained by cultural, socioeconomic, and institutional differences between regions. Second, it was a cross-sectional design that limited causal inference. The longitudinal study would enable the study of the stress development with time. Third, the self-report measures were used in collecting data, which can be affected by response bias. A possible improvement of the research validity in the future would be to add teacher ratings or physiological stress measures.Besides, gender, socioeconomic status, or personality traits were not studied as moderating variables, and the institutional type was the only type that was studied. These variables can play with the school environment to influence the perception of stress.

Future Research Directions

It could be pursued through future studies investigating the mediating processes of institutional differences. As an example, perceived teacher support, parental involvement, and classroom climate can be used to understand existing variations. Longitudinal research can be conducted on the issue of whether the long-term impacts of exposure to the competitive setting produce long-term psychological effects.

Qualitative interviews can also be used in a mixed-method study to enable researchers to get more insight into the subjective experiences of adolescents. The cross-country analysis of rural and urban settings can shed more light on the environmental impacts on stress. In addition, a comparison between coping mechanisms and the intensity of stress would enhance the knowledge about adaptive and maladaptive responses. Psychological resilience measures would be beneficial in offering a holistic understanding of the well-being of the students.

Conclusion

The current research study proved that academic stress between adolescents in the private secondary schools in Patna was significantly correlated with academic stress in government schools. The effect size was very high, meaning that there was a significant institutional impact on the perception of stress. These results emphasize the significance of the educational settings in the development of adolescent psychological experiences. Academic stress is not a solitary problem that is isolated, but a societal problem ingrained in the system of education. Academic expectations and emotional support with a balance style may foster positive developmental outcomes in schools. This research will add valuable information to the discussion of teenage mental health in the Indian educational system through its situational context of institutional context and empirical research on the stress theory.

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