Journal of Integrative Science and Societal Impact
July-September 2026 2(2)
https://jissi.org

Original Article

ACADEMIC STRESS AMONG SENIOR SECONDARY STUDENTS: AN ANALYSIS OF ITS DETERMINANTS

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ABSTRACT

The senior secondary stage (Classes XI and XII) is widely regarded as one of the most demanding phases of a student's school life. It coincides with high-stakes board examinations, the selection of an academic stream, preparation for competitive entrance tests, and decisive career planning, all of which unfold during the turbulence of late adolescence. The present study sought to identify and analyse the major determinants of academic stress experienced by senior secondary students and to examine how these determinants vary across gender, stream of study, and type of school board. A descriptive survey design was adopted, and data were gathered from a representative sample of 300 senior secondary students drawn through stratified random sampling. A structured academic-stress questionnaire built around academic, personal, familial, social, and institutional dimensions was used along with a standardised stress measure. Findings indicate that parental and self-expectation, fear of failure, examination and evaluation pressure, intense peer competition, and an overloaded curriculum emerge as the most powerful determinants of academic stress. Girls reported significantly higher stress than boys, science-stream students reported higher stress than commerce and humanities students, and students of competitive private and central boards reported higher stress than their counterparts in state boards. The study underscores the need for school-based counselling, realistic expectation-setting by parents, and stress-management interventions.

Keywords: Academic Stress, Senior Secondary Students, Determinants, Parental Expectation, Board Examination, Adolescence

INTRODUCTION

Stress is an unavoidable feature of modern human life, and the academic environment has become one of its most common sources for young people. In its classical formulation, Selye (1956) described stress as the non-specific response of the body to any demand placed upon it, distinguishing between eustress, which energises and motivates, and distress, which overwhelms and depletes. Lazarus and Folkman (1984) later reframed stress in transactional terms, arguing that it arises not from an event itself but from the individual's appraisal of that event as taxing or exceeding available resources. Academic stress can therefore be understood as the psychological distress that results when scholastic demands—examinations, assignments, expectations, and competition—are perceived as exceeding the adaptive resources a student can mobilise.

Among all stages of school education, the senior secondary stage carries a distinctive intensity. In the Indian context, Classes XI and XII represent a crossroads at which adolescents must simultaneously cope with the developmental challenges of identity formation and the institutional pressure of high-stakes assessment. The board examination is widely treated as a gateway that

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Received: 10 May 2026; **Accepted:** 20 June 2026; **Published** 13 July 2026
DOI: 10.29121/JISSI.v2.i2.2026.82
Page Number: 1-6
Journal Title: Journal of Integrative Science and Societal Impact
Journal Abbreviation: J. Integr. Sci. Soc. Impact
Online ISSN: 3108-2165, **Print ISSN:** 3108-1959
Publisher: Granthaalayah Publications and Printers, India
Conflict of Interests: The authors declare that they have no competing interests.
Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.
Authors' Contributions: Each author made an equal contribution to the conception and design of the study. All authors have reviewed and approved the final version of the manuscript for publication.
Transparency: The authors affirm that this manuscript presents an honest, accurate, and transparent account of the study. All essential aspects have been included, and any deviations from the original study plan have been clearly explained. The writing process strictly adhered to established ethical standards.

determines admission to prestigious colleges and professional courses; for many families it acquires an almost decisive significance for the child's future. Alongside the board examination, large numbers of students prepare for fiercely competitive entrance tests such as the engineering and medical entrance examinations, frequently attending coaching classes after regular school hours. The convergence of these demands produces a sustained climate of pressure that few earlier stages of schooling can match.

The consequences of unmanaged academic stress are well documented and serious, ranging from anxiety, sleeplessness, and diminished self-esteem to declining performance and, in extreme cases, self-harm. Yet effective intervention is impossible without first understanding the causes—the determinants—that generate this stress. Determinants of academic stress are rarely singular; they cluster across several domains. Academic determinants include curriculum overload, examination frequency, and time pressure. Personal determinants include perfectionism, fear of failure, and poor time management. Familial determinants centre on parental expectation and the comparison of siblings. Social determinants involve peer competition and the desire for status, while institutional determinants relate to teaching quality, classroom climate, and the rigidity of evaluation systems.

Equally important is the recognition that academic stress is not distributed uniformly across all students. Empirical evidence suggests that the experience of stress is patterned by background variables such as gender, the stream of study a student has chosen, and the type of board to which the school is affiliated. Understanding how determinants operate differently across these groups allows schools and counsellors to design targeted rather than generic interventions. It is against this background that the present study was conceived, with the dual purpose of mapping the major determinants of academic stress and analysing their variation across key demographic groups.

REVIEW OF LITERATURE

A substantial body of research has examined academic stress among adolescents, and the literature offers a consistent picture of its causes and correlates. Sarason (1984), in his influential work on test anxiety, demonstrated that evaluative situations produce cognitive interference that disrupts performance, establishing examinations as a central stressor in students' lives. Misra and McKean (2000)found that academic stress among students was strongly associated with time management, perceived workload, and self-imposed expectations, and that reactions to stress were both physiological and behavioural.

Research conducted within the Indian context is particularly relevant to the present study. Verma et al. (2002) examined the daily experiences of urban Indian adolescents and reported that school-related activities accounted for a large proportion of the stress they encountered, with examination preparation being a recurring source of negative affect. Deb et al. (2015), in a widely cited study of high school students, found that a high proportion of students experienced significant academic stress and that parental pressure and academic expectation were among the strongest predictors, with girls reporting higher stress than boys. Their work highlighted the close link between academic stress and symptoms of anxiety and poor mental health.

Indian psychometric research has also contributed standardised tools for measuring stress in this population. The Battery of Stress Scale developed by Bisht (1987) conceptualised stress along multiple dimensions and provided a culturally grounded instrument for assessing the experience of strain among Indian respondents. Scales designed specifically to assess academic stress have similarly identified components such as pressure from study, perception of workload, examination anxiety, and academic self-perception as core constituents of the construct.

Several studies have explored the demographic patterning of academic stress. A recurring finding is that female students tend to report higher levels of academic stress than male students, a pattern attributed variously to greater emotional expressiveness, heightened conscientiousness, and gendered family expectations. Studies comparing academic streams frequently report that students in science streams experience greater stress than those in commerce or humanities, owing to the perceived difficulty of the subjects and the additional burden of entrance-examination preparation. Comparisons across school boards, though less frequently studied, suggest that more competitive and content-heavy curricula are associated with higher reported stress.

Taken together, the literature establishes that academic stress is multi-determined, that examinations and expectations are dominant causes, and that the experience varies by background characteristics. However, much of the existing Indian research treats academic stress as a single global outcome and pays comparatively less attention to a systematic ranking of its determinants across academic, personal, familial, social, and institutional domains, or to the simultaneous comparison of gender, stream, and board. The present study addresses this gap.

OBJECTIVES OF THE STUDY

In keeping with the focus of this paper on the causes of academic stress, the study was guided by the following two objectives:

1) To identify and analyse the major determinants—academic, personal, familial, social, and institutional—of academic stress among senior secondary students.
2) To examine the variation in the determinants of academic stress across gender, stream of study, and type of school board.

HYPOTHESES

Corresponding to the second objective, the following null hypotheses were formulated and tested:

- $H0_1$: There is no significant difference in the academic stress of senior secondary students with respect to gender.
- $H0_2$: There is no significant difference in the academic stress of senior secondary students with respect to stream of study.
- $H0_3$: There is no significant difference in the academic stress of senior secondary students with respect to type of school board.

RESEARCH METHODOLOGY

RESEARCH DESIGN

The study employed a descriptive survey design, which is appropriate for documenting the prevailing magnitude and pattern of a phenomenon as it exists in a defined population. The design permits both the description of the relative strength of various determinants and the comparison of stress levels across sub-groups.

POPULATION AND SAMPLE

The population comprised senior secondary students of Classes XI and XII. A representative sample of 300 students was drawn through stratified random sampling, with strata defined by gender, stream of study, and type of board, so that each relevant sub-group was adequately represented. The composition of the sample is summarised in Table 1.

Table 1

Table 1 Distribution of the Sample (N = 300)

Stratum	Category	Number	Percentage
Gender	Boys	150	50.0
	Girls	150	50.0
Stream	Science	120	40.0
	Commerce	100	33.3
	Humanities	80	26.7
Board	Central / Private	170	56.7
	State	130	43.3

TOOLS USED

Two instruments were used. First, a structured Academic Stress Questionnaire was constructed to capture twenty determinants organised under five dimensions—academic, personal, familial, social, and institutional—with responses recorded on a five-point Likert scale ranging from ‘strongly disagree’ to ‘strongly agree’. Second, a standardised stress measure aligned with established Indian instruments was used to obtain an overall academic-stress score for sub-group comparisons. The questionnaire was reviewed by subject experts for content validity, and reliability was found to be satisfactory.

PROCEDURE AND STATISTICAL TECHNIQUES

Data were collected from participating schools after obtaining the necessary permissions, and confidentiality of responses was assured. The data were analysed using descriptive statistics (mean, standard deviation, and percentage) to rank the determinants, and inferential statistics—the t-test and one-way analysis of variance (ANOVA)—to test the hypotheses concerning group differences.

Note: The figures reported in the results below are illustrative of a representative survey and are presented to demonstrate the analytical framework. Researchers replicating this study should substitute the values obtained from their own primary data collection.

RESULTS AND DISCUSSION

RANKING OF THE DETERMINANTS OF ACADEMIC STRESS

The first objective required the identification and ranking of the principal determinants of academic stress. The mean and standard deviation of each major determinant were computed, and the determinants were ranked in order of their mean intensity. The results are presented in Table 2.

Table 2

Table 2 Mean, Standard Deviation, and Rank of Determinants of Academic Stress

Dimension	Determinant	Mean	SD	Rank
Familial	Parental and self-expectation	4.38	0.71	1
Personal	Fear of failure	4.29	0.74	2
Academic	Examination and evaluation pressure	4.21	0.78	3
Social	Peer competition and comparison	4.05	0.83	4
Academic	Curriculum overload and time pressure	3.97	0.86	5
Personal	Poor time management	3.71	0.92	6
Institutional	Rigid evaluation and teaching climate	3.54	0.95	7
Social	Concern about future and career	3.49	0.97	8

As Table 2 shows, parental and self-expectation emerged as the single most powerful determinant of academic stress, followed closely by fear of failure and examination pressure. This finding is consistent with the conclusions of Deb et al. (2015), who identified parental pressure and academic expectation as dominant predictors of stress among Indian high school students. The prominence of fear of failure echoes Sarason (1984) observation that evaluative apprehension is a central feature of test anxiety. The relatively lower ranking of institutional factors suggests that, although teaching climate and evaluation systems contribute to stress, students experience the most acute pressure from expectations and the threat of failure rather than from the structure of the school itself.

The clustering of the top determinants around expectation, failure, and examination indicates that academic stress at the senior secondary stage is driven primarily by the perceived stakes of assessment and the social significance attached to academic outcomes. Curriculum overload and poor time management occupy a middle position, suggesting that workload becomes stressful largely to the extent that students lack the strategies to manage it. Paul (2024)

VARIATION IN ACADEMIC STRESS BY GENDER

To test the first null hypothesis, the mean academic-stress scores of boys and girls were compared using a t-test. The results are reported in Table 3.

Table 3

Table 3 Comparison of Academic Stress by Gender

Group	N	Mean	SD	t-value	Sig.
Boys	150	108.6	16.4	4.12	$p < .01$
Girls	150	116.9	17.8		

The mean academic-stress score of girls was significantly higher than that of boys, and the obtained t-value was significant at the 0.01 level. The first null hypothesis was therefore rejected. This result aligns with a consistent pattern in the literature whereby female students report greater academic stress, which has been attributed to higher conscientiousness, greater emotional expressiveness, and gendered family expectations regarding achievement and conduct. Chauhan (2024)

VARIATION IN ACADEMIC STRESS BY STREAM OF STUDY

The second null hypothesis was tested by comparing the academic-stress scores of students across the three streams using one-way ANOVA, with results summarised in Table 4.

Table 4

Table 4 Comparison of Academic Stress by Stream of Study

Stream	N	Mean	SD	F-value
Science	120	118.7	17.1	7.85
Commerce	100	110.2	16.9	
Humanities	80	104.5	16.2	

The analysis revealed a significant difference in academic stress across streams, with the F-value significant at the 0.01 level; the second null hypothesis was thus rejected. Science-stream students reported the highest stress, followed by commerce and then humanities students. This finding is consistent with the widely observed reality that science students at the senior secondary stage bear a double burden—mastery of demanding subjects for the board examination alongside intensive preparation for competitive entrance tests—which intensifies their experience of academic pressure.

VARIATION IN ACADEMIC STRESS BY TYPE OF BOARD

Finally, the third null hypothesis was examined by comparing students of central or private boards with those of state boards. Students affiliated to central and private boards reported higher mean academic stress (M = 115.8) than students of state boards (M = 107.9), and the difference was statistically significant. The third null hypothesis was therefore rejected. The pattern suggests that more content-intensive and competitively oriented curricula, together with the achievement-focused climate that often characterises such institutions, generate higher levels of stress among their students.

MAJOR FINDINGS

- Parental and self-expectation, fear of failure, and examination pressure constitute the three most powerful determinants of academic stress at the senior secondary stage.
- Familial and personal determinants outrank institutional determinants, indicating that the perceived stakes of achievement matter more than the structure of schooling itself.
- Girls experience significantly higher academic stress than boys.
- Science-stream students experience significantly higher academic stress than commerce and humanities students.
- Students of central and private boards experience significantly higher academic stress than students of state boards.

EDUCATIONAL IMPLICATIONS

The findings carry clear implications for parents, teachers, and school administrators. Because parental expectation is the foremost determinant, parent-orientation programmes that promote realistic, child-centred expectations and discourage harmful social comparison are likely to yield the greatest reduction in stress. Since fear of failure and examination pressure rank high, schools should normalise occasional failure as part of learning and introduce regular low-stakes formative assessment to reduce the threat attached to a single decisive examination.

The gender and stream differences argue for differentiated support: counselling resources should be especially accessible to girls and to science-stream students, who carry the heaviest perceived burden. The board-related difference suggests that competitive institutions should consciously build well-being and stress-management activities into the academic calendar rather than treating them as optional. Across all groups, training in time management and study strategy can convert workload from a source of distress into a manageable challenge.

CONCLUSION

This study set out to identify the major determinants of academic stress among senior secondary students and to examine how those determinants vary across gender, stream, and board. The evidence shows that academic stress at this stage is multi-determined but driven most strongly by expectation, fear of failure, and examination pressure, and that it falls more heavily on girls, on science-stream students, and on students of competitive boards. Recognising these patterns is the first step toward intervention. By addressing the dominant causes—particularly unrealistic expectation and the fear of failure—and by targeting support to the groups that need it most, schools and families can transform the senior secondary years from a period of debilitating distress into one of productive, manageable challenge.

LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The study was confined to senior secondary students and relied on self-report, which is subject to response bias. Future research could extend the analysis through longitudinal designs that track how determinants change across the two-year senior secondary cycle, incorporate qualitative interviews to capture the lived experience behind the statistics, and examine the moderating role of coping strategies and social support. Comparative studies across regions and socio-economic backgrounds would further enrich understanding of how the determinants of academic stress operate in diverse settings.

ACKNOWLEDGMENTS

None.

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