Relationship Between Stress Management Skills and Academic Performance Among High School Students

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ABSTRACT

This study examines the relationship between stress management skills and academic performance among high school students. Using a sample of 300 students (133 male, 167 female; 140 rural, 160 urban), data were collected through validated scales measuring stress management and academic performance. Results revealed significant differences in stress management skills between male and female students ($t=4.793$, $p<0.05$) and between rural and urban students ($t=2.180$, $p<0.05$). Similarly, academic performance differed significantly by gender ($t=3.458$, $p<0.05$) and locality ($t=4.022$, $p<0.05$). Correlation analysis showed a moderately positive and statistically significant relationship ($r = 0.46$, $p < 0.05$) between stress management skills and academic performance. These findings suggest demographic factors significantly influence both variables independently, but stress management skills do not directly predict academic outcomes. The study highlights the need for context-specific educational interventions and further exploration of mediating variables.

Keywords: Stress management, Academic performance, High school students, Gender differences, Rural-urban education

INTRODUCTION

In today's fast-paced educational environment, high school students face increasing pressure to excel academically, often resulting in elevated stress levels. Academic demands, peer competition, parental expectations, and time constraints can significantly affect a student's mental well-being. If not properly managed, stress can negatively impact concentration, memory, and overall academic performance. Developing effective stress management skills is essential for maintaining emotional balance and achieving academic goals. These skills help students cope with anxiety, enhance focus, and maintain motivation. Research suggests that students who apply healthy coping mechanisms tend to perform better in school. Conversely, unmanaged stress may lead to poor grades, absenteeism, or even burnout. This study aims to explore the relationship between stress management skills and academic performance among high school students. Understanding this link can help educators and parents support students more effectively. Encouraging positive stress coping strategies may foster academic success and personal growth in adolescents.

Stress Management Skills

Stress management skills refer to the set of strategies individuals use to recognize, cope with, and reduce the negative effects of stress. These skills include techniques like deep breathing, mindfulness, time management, physical exercise, and positive self-talk. Practicing these methods helps maintain emotional balance and mental clarity. For students, managing stress effectively allows for better concentration, improved memory, and a more positive mindset. It also reduces the risk of burnout and mental fatigue during intense academic periods. Stress management enhances problem-solving abilities and promotes resilience in challenging situations. When these skills are developed early, students are better equipped to handle pressure in both academic and personal life. Stress is a natural part of student life, but managing it wisely improves overall

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well-being. Strong stress management skills contribute to healthier habits, better focus, and long-term academic success.

Academic Performance

Academic performance is the measure of a student's achievement in their educational pursuits, often reflected through grades, assessments, and classroom participation. It indicates how well a student has understood and applied the knowledge taught. Factors influencing academic performance include study habits, learning environment, motivation, and time management. Consistently strong academic performance often opens doors to scholarships, higher education, and career opportunities. It is not only about test scores but also about critical thinking, creativity, and the ability to apply knowledge in real-life situations. Teachers, parents, and personal discipline all play a role in shaping academic outcomes. Good academic performance often requires dedication, focus, and strong organizational skills. It is also influenced by emotional and mental health, including the ability to manage stress. Ultimately, academic performance reflects both cognitive ability and personal effort in the learning process.

Need and Significance of the Study

In today's fast-paced academic environment, high school students often experience immense pressure to perform well academically. This pressure, compounded by social, familial, and personal expectations, contributes to elevated stress levels. Chronic academic stress can lead to poor concentration, anxiety, sleep disturbances, and even burnout, all of which directly impact academic performance. The ability to effectively manage stress has become a critical life skill for students. Stress management skills such as time management, relaxation techniques, problem-solving, and emotional regulation can help students cope with academic demands more effectively. When students are equipped with these skills, they are more likely to maintain emotional balance, stay focused, and perform better academically. This study is significant because it aims to explore the connection between stress management skills and academic performance among high school students. By identifying this relationship, educators, parents, and policymakers can implement support systems and interventions to improve both student well-being and academic outcomes. The findings may contribute to the development of student counseling programs, mental health initiatives, and curriculum enhancements focusing on life skills education.

Statement of the Problem

The academic performance of high school students is often affected by stress arising from academic workload, competition, peer pressure, and expectations. While some students are able to manage stress effectively and perform well, others struggle to cope, resulting in decreased academic achievement. Despite growing concern over student mental health, there is limited empirical evidence examining the direct relationship between stress management skills and academic performance in the high school context. Therefore, the problem of the study is" **Relationship between stress management skills and academic performance among high school students.**"

Definition of Terms

Stress: A psychological and physiological response to perceived academic or social pressure, resulting in mental tension and anxiety in students.

Stress Management Skills: The abilities and techniques used by individuals to control and reduce the impact of stress, including strategies like deep breathing, time management, goal setting, and cognitive reframing.

Academic Performance: The measurable outcomes of a student's learning, often reflected through grades, test scores, and teacher evaluations.

High School Students: Learners enrolled in secondary school education, typically in grades 9 to 12, ranging in age from approximately 14 to 18 years.

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Objectives of the Study

To find out whether there is a significant difference between male and female high school students in their stress management skills.

To find out whether there is a significant difference between rural and urban high school students in their stress management skills.

To examine the significant difference between male and female high school students in their academic performance.

To examine the significant difference between rural and urban high school students in their academic performance.

To determine whether there exists a significant relationship between stress management skills and academic performance of high school students.

Hypotheses of the Study

There is no significant difference between male and female high school students in their stress management skills.

There is no significant difference between rural and urban high school students in their stress management skills.

There is no significant difference between male and female high school students in their academic performance.

There is no significant difference between rural and urban high school students in their academic performance.

There is no significant relationship between stress management skills and academic performance of high school students.

Tools Used for the Study

Stress Management Skills Scale:

A standardized tool developed to assess the stress management skills of high school students. The scale consists of items related to coping strategies, emotional control, time management, and ability to handle academic and social pressures. Responses are typically recorded on a Likert-type scale. The reliability and validity of the tool were established prior to administration.

Academic Performance Record:

Academic performance was measured using students' school records, typically final examination scores or cumulative marks obtained in core subjects. This objective measure was used to compare academic achievement across gender and locality.

Null Hypothesis: 1

There is no significant difference between male and female high school students in their stress management skills.

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Table:1 Difference Between Male and Female High School Students in Their Stress Management Skills.

Gender	N	Mean	SD	Calculated 't' value	Remarks at 5% level
Male	133	125.17	13.44	4.793	S
Female	167	117.61	13.65		

(At 5% level of significance, for df 298, the table value of 't' is1.96)

It is inferred from the above table that calculated 't' value (4.793) is greater than the table value (1.96) for df 298 and at 5% level of significance. Hence the null hypothesis is rejected. It shows that there is significant difference between male and female high school students in their stress management skills.

Null Hypothesis: 2

There is no significant difference between rural and urban high school students in their stress management skills.

Table:2 Difference Between Rural and Urban High School Students in Their Stress Management Skills.

Locality	N	Mean	SD	Calculated 't' value	Remarks at 5% level
Rural	140	118.55	12.66	2.180	S
Urban	160	123.07	14.88		

(At 5% level of significance, for df 298, the table value of 't' is 1.96)

It is inferred from the above table that calculated 't' value (2.180) is greater than the table value (1.96) for df 298 and at 5% level of significance. Hence the null hypothesis is rejected. It shows that there is significant difference between rural and urban high school students in their stress management skills.

Null Hypothesis: 3

There is no significant difference between male and female high school students in their performance

Table:3 Difference Between Male and Female High School Students in Their Performance

Gender	N	Mean	SD	Calculated 't' value	Remarks at 5% level
Male	133	84.195	7.1842	3.458	S
Female	167	87.000	6.8116		

(At 5% level of significance, for df 298, the table value of 't' is1.96)

It is inferred from the above table that calculated 't' value (3.458) is greater than the table value (1.96) for df 298 and at 5% level of significance. Hence the null hypothesis is rejected. It shows that there is significant difference between male and female high school students in their performance

Null Hypothesis: 4

There is no significant difference between rural and urban high school students in their performance

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Table:4 Difference Between Rural and Urban High School Students in Their Performance

Locality	N	Mean	SD	Calculated 't' value	Remarks at 5% level
Rural	140	84.036	6.5078	4.022	**S**
Urban	160	87.263	7.2827		

(At 5% level of significance, for df 298, the table value of 't' is 1.96)

It is inferred from the above table that calculated 't' value (4.022) is greater than the table value (1.96) for df 298 and at 5% level of significance. Hence the null hypothesis is rejected. It shows that there is significant difference between rural and urban high school students in their performance

CORRELATION

Null Hypothesis:5

There is no significant relationship between stress management skills and academic Performance of high school students.

Table:5significant Relationship Between Stress Management Skills and Academic Performance of High School Students

Variables	N	'r' Value	Level of Significance
Stress Management and Academic Performance	300	0.46	Significant at the level of 0.05

(Table value of 'r' is 0.46, S - Significant)

The table illustrates that the correlation coefficient (r = 0.46) between teaching performance and stress management is significant at the 0.01 level. Consequently, the null hypothesis is rejected. The analysis revealed a positive and statistically significant correlation between stress management skills and academic performance among high school students.

Findings and Interpretation of the Study

The results of the study offer insightful findings regarding the differences and relationships among gender, locality, stress management skills, and academic performance of high school students. The first hypothesis tested the difference in stress management skills between male and female students. The mean score for males was 125.17 while for females it was 117.61, with a calculated t-value of 4.793, which is significantly higher than the critical value of 1.96 at the 5% level. This indicates a significant difference in stress management skills, with male students demonstrating better stress management abilities than their female counterparts. The hypothesis was therefore rejected.

Similarly, when comparing rural and urban students in terms of stress management skills, the calculated t-value was 2.180, which again exceeds the table value of 1.96. Urban students (mean = 123.07) outperformed rural students (mean = 118.55), suggesting that urban students are better equipped to manage stress, potentially due to greater exposure to resources, technology, or counseling facilities. This finding led to the rejection of the second null hypothesis and shows a statistically significant difference in stress management based on locality.

The third hypothesis examined gender differences in academic performance. The analysis showed that female students (mean = 87.000) scored higher than male students (mean = 84.195), with a t-value of 3.458, also exceeding the critical value. This result signifies a meaningful difference in performance in favor of female

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students, leading to the rejection of the third null hypothesis. This aligns with several educational studies which report consistent academic advantages for females, possibly attributed to higher levels of discipline and classroom engagement.

The fourth hypothesis investigated performance differences between rural and urban students. Urban students recorded a higher mean (87.263) compared to rural students (84.036), and the t-value of 4.022 confirms this difference as statistically significant. The urban advantage could be due to better educational infrastructure, access to qualified teachers, and enhanced learning environments. Thus, the null hypothesis was again rejected, affirming that location plays a critical role in shaping academic outcomes.

In contrast, the fifth hypothesis assessed the correlation between stress management skills and academic performance. The analysis found a positive link between stress management skills and academic performance among high school students, with a Pearson correlation coefficient of r = 0.46 based on 300 students. This indicates that students who manage stress well generally perform better academically. Effective stress management techniques—like time management, relaxation methods, and problem-solving—can enhance focus and motivation, contributing to improved results. While the relationship is significant, it does not prove that better stress management directly causes higher academic performance, as many other factors are also at play. Thus, stress management is an important part of achieving academic success.

Educational Implications of the Study

The findings of this study have several important educational implications for teachers, school administrators, policymakers, and curriculum developers. First, the significant difference observed in stress management skills and academic performance based on gender and locality indicates the need for targeted interventions. Male students demonstrated stronger stress management skills, while female students performed better academically. This suggests that schools should provide gender-sensitive support systems to balance both emotional well-being and academic excellence. Urban students outperformed rural students in both stress management and academic performance, highlighting the persistent rural-urban divide in educational access and resources. Therefore, schools in rural areas must be strengthened through better infrastructure, trained counselors, and access to co-curricular programs that build resilience. Teachers should be sensitized to the emotional and psychological needs of students through regular professional development workshops. Stress management skills must be integrated into the curriculum through life skills education, yoga, meditation, and peer support programs. Schools should adopt a holistic approach to student development by balancing academic rigor with emotional intelligence training. Educational boards should design toolkits and modules to assess students' stress levels periodically. Parental involvement must be encouraged in managing students' stress and supporting academic growth. Urban models of resource access and student engagement should be adapted and applied in rural contexts where possible. Finally, bridging the performance gap among student groups requires inclusive policies that consider mental health, socio-economic background, and learning environments as critical factors in academic success.

Recommendations of the Study

Schools should organize regular stress management workshops for both male and female students.

Educational policies should address the rural-urban divide by improving resources and guidance services in rural schools.

Life skills programs, including emotional regulation and coping strategies, should be incorporated into the school curriculum.

Teachers should receive training on how to identify and address stress-related issues in the classroom.

Special emphasis should be given to academic support for male students and emotional support for female students.

School counselors should regularly monitor student well-being and provide intervention where necessary.

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Academic enrichment programs should be introduced in rural areas to narrow the performance gap.

Schools should use diagnostic tools to measure and improve student stress management levels.

Parents should be involved in stress management education and student counseling processes.

Governments should ensure equitable allocation of educational funds and infrastructure to rural schools.

Classroom environments should be made more supportive, encouraging open discussions about mental health.

Peer mentoring programs should be initiated to promote emotional support and academic collaboration.

Suggestions for Further Study

Future research can explore the role of socio-economic status in influencing stress and performance.

A longitudinal study may be conducted to examine how stress management skills affect academic achievement over time.

Comparative studies across different educational boards and regions could yield deeper insights.

Researchers can examine the effectiveness of specific stress reduction programs in school settings.

The relationship between parental support and student stress can be investigated.

Studies may assess how extracurricular participation influences stress and academic performance.

Gender differences in coping mechanisms can be explored in greater depth.

Future studies could use qualitative methods like interviews to gain deeper insights into student stress experiences.

The impact of digital learning environments on stress levels among high school students can be studied.

Researchers can examine the role of peer relationships in mitigating academic stress.

A study involving intervention techniques (like mindfulness or CBT) and their impact on students can be valuable.

Further research may explore the connection between teacher behavior and student stress management.

Future studies could also incorporate validated theoretical frameworks like Lazarus and Folkman's Transactional Model of Stress and Coping to contextualize findings.

CONCLUSION

This study examined the relationship between stress management skills and academic performance among high school students, with a focus on differences by gender and locality. The findings revealed statistically significant differences in stress management and academic achievement across both variables—male students exhibited stronger stress management skills, while female students achieved higher academic scores. Urban students outperformed rural students in both areas, highlighting ongoing educational inequalities that demand targeted policy attention.

The study found a moderately positive and statistically significant correlation ($r = 0.46$, $p < 0.05$) between stress management skills and academic performance among high school students. This unexpected result suggests that other unmeasured factors—such as motivation, emotional intelligence, or socio-economic status—may influence academic outcomes more directly, or may act as mediators in the relationship between stress and performance. The absence of a strong link also points to the need for theoretical grounding and a

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broader analytical framework in future studies. The study's limitations, including its reliance on a single-method quantitative design and lack of theoretical underpinning, restrict the depth of interpretation. However, it opens critical avenues for future research. By adopting mixed-methods designs, longitudinal approaches, and intervention-based studies, future research can better capture the complex and multifactorial nature of student stress and learning outcomes. In conclusion, the study underscores the importance of integrating stress management and life skills education into school systems while addressing gender and locality-based disparities. A holistic approach—combining academic support with mental health initiatives—can promote both emotional well-being and academic excellence among adolescents. Educators, parents, and policymakers must work collaboratively to build inclusive, supportive, and resilience-focused learning environments for all students.

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