

Effect of Mindfulness Practices on Academic Stress and Performance among High School Students in Assam

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Abstract- Academic stress among high school students has become a significant concern, particularly in regions like Assam, where socio-cultural pressures and educational competition contribute to students' mental burden. This study investigates the effect of mindfulness practices on reducing academic stress and enhancing academic performance among high school students in Assam. A quasi-experimental design was employed, involving 120 students from two government schools, with 60 students in the experimental group practicing mindfulness over 8 weeks and 60 in the control group following the regular routine. Standardized tools were used to assess stress and academic performance before and after the intervention. Findings revealed a significant reduction in academic stress levels and improvement in academic performance among the students exposed to mindfulness practices compared to those who were not. The results highlight the potential of integrating mindfulness into the school curriculum to support students' emotional well-being and learning outcomes.

Keywords- Mindfulness, Academic Stress, Academic Performance, High School Students, Assam, Mental Health, Stress Reduction, Educational Intervention

INTRODUCTION

In recent years, there has been growing concern regarding the mental health of high school students, especially in the context of increasing academic pressure. Students in Assam, like their counterparts elsewhere in India, often face intense expectations from family, school, and society to perform well academically. These pressures can result in heightened academic stress, which negatively affects their emotional stability, health, and academic performance.

Mindfulness, defined as the awareness that arises through paying attention, on purpose, in the present

moment and non-judgmentally, has emerged as a powerful tool in managing stress and improving cognitive and emotional functioning. Globally, schools are increasingly adopting mindfulness-based practices to promote student well-being. However, in Assam, empirical research on the effectiveness of such interventions is limited.

This study addresses this gap by examining how mindfulness practices influence academic stress and performance among high school students in Assam. It provides evidence on whether incorporating structured mindfulness sessions can serve as a non-invasive and cost-effective strategy to enhance student well-being and learning outcomes.

OBJECTIVES OF THE STUDY

1. To assess the level of academic stress among high school students in Assam before and after mindfulness interventions.
2. To examine the impact of mindfulness practices on academic performance.
3. To compare the academic stress levels and academic performance between students who practice mindfulness and those who do not.
4. To evaluate the feasibility of implementing mindfulness practices in the high school curriculum in Assam.

REVIEW OF RELATED LITERATURE

The relationship between mindfulness practices and academic outcomes has garnered increasing attention in educational psychology. Mindfulness has been recognized as an effective approach to managing stress, improving concentration, and enhancing emotional regulation, especially among adolescents.

Kabat-Zinn (1990) introduced the concept of mindfulness-based stress reduction (MBSR), which has been widely applied in educational and clinical settings. His framework laid the foundation for using mindfulness to manage anxiety, depression, and stress-related conditions.

Schonert-Reichl and Lawlor (2010) conducted a school-based mindfulness study on adolescents and found significant improvements in emotion regulation and academic achievement. The participants reported lower levels of stress and anxiety after the mindfulness intervention, along with improved classroom behavior.

Beauchemin, Hutchins, and Patterson (2008) evaluated the effect of a five-week mindfulness intervention on adolescents with learning disabilities. The study revealed reductions in anxiety and improvements in academic performance and social skills.

Zenner, Herrnleben-Kurz, and Walach (2014) performed a meta-analysis of 24 studies on school-based mindfulness interventions and concluded that mindfulness had a medium effect on psychological outcomes such as stress and anxiety and a small but significant positive impact on academic performance.

Tarrasch (2015) emphasized that consistent mindfulness training enhances working memory and executive functioning, both of which are critical for academic success. These cognitive improvements contribute to reduced test anxiety and better academic engagement.

Singh and Kaur (2018) explored mindfulness-based interventions in Indian high schools and found that students practicing mindfulness reported higher levels of academic satisfaction and lower stress levels. The study also noted a lack of mindfulness practices in Indian school curricula, suggesting the need for localized interventions.

In the context of Assam, limited literature exists on mindfulness practices among high school students. However, Das and Barman (2019) noted that stress levels among Assamese adolescents are often

exacerbated by academic competition and lack of coping mechanisms. They recommend integrating emotional and psychological support systems within school structures.

Collectively, these studies affirm the potential of mindfulness as a tool to manage academic stress and enhance learning outcomes. However, there is a clear research gap in the North-Eastern context of India, particularly Assam, where cultural and educational dynamics may affect how mindfulness is received and practiced.

METHODOLOGY

Research Design

The present study employed a quasi-experimental pre-test post-test control group design to examine the impact of mindfulness practices on academic stress and academic performance among high school students in Assam.

Population and Sample

The population consisted of high school students (Classes IX and X) from government schools in the Kamrup district of Assam. Using purposive sampling, two government schools were selected for the study. From each school, 60 students were selected based on their consent and availability, resulting in a total sample size of 120 students. These were divided into:

- Experimental Group (n = 60): Students who participated in mindfulness sessions.
- Control Group (n = 60): Students who followed the regular academic schedule without mindfulness practices.

Tools and Instruments

1. Academic Stress Scale (ASS): A standardized tool adapted from Sinha and Sharma (2003) to assess the level of academic stress among students.
2. Academic Performance Records: School-provided test scores in core subjects (Mathematics, Science, English) were used to

assess academic performance before and after the intervention.

3. Mindfulness Practice Protocol: Developed based on the Mindfulness-Based Stress Reduction (MBSR) model, including guided breathing, body scan, and awareness exercises, tailored for adolescents.

Intervention Procedure

The experimental group underwent mindfulness training for 8 weeks, with three 30-minute sessions conducted each week. Sessions included:

- Breathing awareness
- Mindful walking
- Guided visualization
- Body scan and relaxation
- Reflection and journaling

Trained facilitators conducted the sessions within school hours in coordination with school authorities.

The control group continued with their regular school activities without any intervention.

Data Collection

Pre-test data on academic stress and academic performance were collected from both groups before the intervention. Post-test data were collected after the 8-week intervention period. All participants' academic scores were obtained from the school's internal assessment records.

Data Analysis

- Descriptive statistics (mean, standard deviation) were used to summarize the data.
- Inferential statistics, including paired t-tests and independent samples t-tests, were applied to analyze the difference in academic stress and academic performance between and within groups.
- Statistical analysis was performed using SPSS (Version 23.0).

Ethical Considerations

- Informed consent was obtained from students, parents, and school authorities.
- Participation was voluntary, and confidentiality of student data was maintained.
- The study was conducted in accordance with ethical guidelines for research in education and psychology.

MAJOR FINDING

Based on the data analysis and statistical interpretation of pre- and post-intervention results, the following major findings were observed:

1. Reduction in Academic Stress in the Experimental Group
 - There was a statistically significant reduction in academic stress levels among students in the experimental group who underwent mindfulness training.
 - The mean academic stress score decreased from $M = 72.4$ (pre-test) to $M = 56.3$ (post-test), indicating the positive influence of mindfulness practices on stress reduction.
 - In contrast, the control group showed no significant change in academic stress scores over the same period.
2. Improvement in Academic Performance
 - The academic performance of students in the experimental group improved notably post-intervention, particularly in subjects such as Mathematics and English.
 - The average overall score of the experimental group increased from 58.2% (pre-test) to 66.7% (post-test).
 - The control group showed only a marginal improvement (from 59.0% to 60.2%), which was not statistically significant.
3. Gender-Neutral Benefits
 - Both male and female students in the experimental group experienced similar reductions in stress and improvements in academic outcomes, suggesting that the benefits of mindfulness practices were independent of gender.

4. Enhanced Classroom Behavior and Focus (Qualitative Observations)
 - Teachers reported improved classroom behavior, attention span, and emotional regulation among students who participated in mindfulness sessions.
 - Students themselves reported feeling "calmer", "more focused", and "less anxious" during exams and assignments.
5. Feasibility of Implementation
 - The mindfulness sessions were conducted without disrupting academic schedules, indicating the practical feasibility of integrating mindfulness into the school timetable in Assam's government schools.
5. Inclusion in Teacher Education Programs
Teacher training institutes (such as DIETs and B.Ed. colleges) in Assam should include mindfulness education in their curriculum to prepare future educators to address students' emotional and psychological needs.
6. Collaboration with Educational Boards and State Authorities
The Department of School Education, Assam, and SEBA/ AHSEC should consider formulating policies to support mindfulness interventions in government and private schools. Pilot programs can be launched with possible upscaling based on success.
7. Use of Technology and Media
Schools can utilize audio-visual aids, mobile apps, and recorded guided sessions to make mindfulness practice more accessible and engaging for students, especially in remote or rural areas.

RECOMMENDATIONS / SUGGESTIONS

1. Integration of Mindfulness Practices into School Curriculum
Mindfulness sessions should be formally integrated into the weekly school timetable across high schools in Assam. These can be introduced as part of value education, life skills, or health and wellness periods to promote mental well-being and reduce academic stress.
2. Training Programs for Teachers and School Counselors
Teachers and school counselors should be provided with professional development and certification in mindfulness techniques so they can effectively guide students. Capacity-building workshops can be organized in collaboration with mental health experts or NGOs.
3. Development of Localized and Age-Appropriate Mindfulness Modules
Mindfulness practices should be contextualized to the cultural and linguistic background of students in Assam. Use of Assamese and English languages, and incorporation of local examples during practice sessions, can make the modules more relatable and effective.
4. Periodic Assessment and Feedback Mechanism
Schools should implement a monitoring system to periodically assess students' stress levels and academic progress. Feedback from students and teachers can help in refining the mindfulness program to ensure sustained benefits.
8. Parental Involvement and Awareness
Organizing orientation sessions for parents can foster a home environment that supports mindfulness and emotional wellness. Encouraging mindfulness practice at home can reinforce its benefits.
9. Further Research and Longitudinal Studies
Long-term studies should be conducted to examine the sustained impact of mindfulness practices on academic performance, mental health, and behavioral outcomes among adolescents in various regions of Assam.

CONCLUSION

The study demonstrates that mindfulness practices have a significant positive impact on reducing academic stress and improving academic performance among high school students in Assam. The findings suggest that structured mindfulness interventions not only help students cope with exam-related anxiety and emotional pressure but also enhance their cognitive focus and classroom engagement.

With increasing academic demands and mental health challenges faced by adolescents today, integrating mindfulness into the school curriculum emerges as a promising, low-cost, and non-invasive strategy. The

research highlights the practicality and benefits of such practices in the context of Assam, paving the way for broader implementation in the state's educational system. Continued research, teacher training, and policy support are essential to sustain and scale mindfulness-based educational practices across schools in the region.

REFERENCE

- [1] Kabat-Zinn, J. (1990). *Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness*. New York: Delacorte.
- [2] Schonert-Reichl, K. A., & Lawlor, M. S. (2010). *The effects of a mindfulness-based education program on pre- and early adolescents' well-being and social and emotional competence*. *Mindfulness*, 1(3), 137–151.
- [3] Sinha, U. K., & Sharma, V. (2003). *Manual for Academic Stress Scale*. National Psychological Corporation, Agra.
- [4] Singh, R., & Kaur, G. (2018). *Mindfulness-based interventions and academic stress among adolescents in India*. *Journal of Indian Psychology*, 35(2), 87–95.
- [5] Tarrasch, R. (2015). *Mindfulness for students with learning disabilities: A meta-cognitive approach to improving academic performance and reducing stress*. *International Journal of Special Education*, 30(1), 89–98.
- [6] Zenner, C., Herrnleben-Kurz, S., & Walach, H. (2014). *Mindfulness-based interventions in schools—a systematic review and meta-analysis*. *Frontiers in Psychology*, 5, 603.