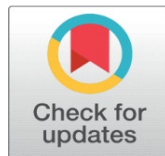
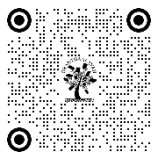


THE IMPACT OF MINDFULNESS TRAINING ON IMPROVING COGNITIVE FLEXIBILITY AND REDUCING ACADEMIC STRESS AMONG SECONDARY SCHOOL STUDENTS

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ABSTRACT

The purpose of the existence of schools seems to be misunderstood by a large population of educators today. Schools which are expected to be happy learning places have turned into pyres of creativity and critical thinking. This research article examines whether mindfulness training improves cognitive flexibility and reduces academic stress in high school students using a qualitative survey method. Cognitive flexibility is an executive function of the human brain but can get severely impaired in stressful environments. Students' learning outcome depends largely on their ability to control emotions. This paper uses in-depth survey responses from students who participated in an eight-week mindfulness training program to discuss perceived benefits and challenges associated with incorporating mindfulness practices into educational settings.

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Keywords: Mindfulness, Cognitive Flexibility, Academic Stress



1. INTRODUCTION

It could be stated with certain amount of conviction that in the present fast-paced educational landscape, senior school students experience academic pressure which is likely to lead to an increased level of stress. The study aims to analyse if this pressure also impacts their cognitive flexibility, and if so whether mindfulness training can help mitigate the same. Cognitive flexibility, or the ability to switch back and forth between different tasks and adjust to changing demands, is one critical component of successful academic performance and more general mental health. It is one mode of attending to present-moment experience without judgment or elaboration. It has been cogently suggested to benefit

psychological wellbeing and intellectual functioning. This research aims to understand whether mindfulness training can have a positive impact on cognitive flexibility among the high school students and help them manage pressure. The researchers extensively depended on the data collected from survey to arrive at a conclusion.

1.1. OBJECTIVES OF THE STUDY

- Assess the Effectiveness of Mindfulness Training on Cognitive Flexibility
- Evaluate the Effectiveness of Mindfulness Training on students' ability to manage stress
- Analyze the Relationship Between Mindfulness, Cognitive Flexibility, and Academic Stress
- Identify effective mindfulness practices for school going students.

1.2. COGNITIVE FLEXIBILITY AND ACADEMIC STRESS

1) Cognitive Flexibility

In common parlance, Cognitive Flexibility can be considered as one's ability to think differently or rather it is the mental ability to change the way one thinks and adopts behavior under new, changing, or unexpected conditions. It is an executive function of the brain whose constituents form the backbone of problem-solving, creativity, and strategies for coping with academic challenges. An improvement in one's cognitive flexibility is sure to help an individual to perceive things differently, and work more efficiently, thereby leading to better academic output.

2) Academic Stress

In the 21st century, high school students are expected to perform academically. When a child fails to perform to the satisfaction of his family, school community and his own expectations, it leads to tremendous academic pressure. Often students find themselves juggling with multiple responsibilities which takes away their time from academic works. It is also to be noted that some students develop an academic gap by the time they reach high school and if their schools do not pay any attention to bridging this gap before teaching them their grade level subjects, it only adds to the stress they experience and can sometimes interfere with the student's cognitive functioning, emotional well-being, and overall performance. This simply indicates that academic stress should be addressed with effective interventions to guarantee a supportive learning environment for these students.

1.3. MINDFULNESS TRAINING

Definition and Benefits

Mindfulness is one's ability to be completely aware of the present. It is the ability to be aware of the 'here and the now' without being judgemental. When a student can observe what is happening in and around him impartially including their thoughts, emotions, and sensations of the body, he can be said to be being mindful. It has also been shown to reduce stress, enhance emotional regulation, and enhance cognitive functioning. Mindfulness practices in schools support students in keeping up with stress, focusing, and having a balanced approach toward challenges in academics and personal life.

1.4. MINDFULNESS PRACTICES IN SCHOOLS

Most schools across the world that advocates mindfulness practices within their campus normally include meditation, breathing exercises, and mindful movement. The aim of these practices is enhancement of present-moment awareness and regulation of feelings to perform better with accretions under stressful situations and enhance mental flexibility. Integrating mindfulness practices with school curriculum can make a huge difference in the mental health and academic performance of students.

2. RESEARCH METHODOLOGY

2.1. SAMPLE

For the purpose of this study, the researchers selected 60 children who were all between the ages of 13 and 16 from two different high schools from the district of Thiruvananthapuram in Kerala. Fifty percent of the students were given 8 weeks of mindfulness training before they answered the survey questions.

2.2. MINDFULNESS TRAINING PROGRAMME

The mindfulness training programme was designed to happen for 8 weeks in such a way that the participants get two sessions per week. Each of the sessions were of 1 hour duration. The mentor of the mindfulness sections was asked to include guided mindfulness meditation, breathing exercises, and group discussions. Students were taken to a quiet room and they were seated in a comfortable way. Some students who found it difficult to sit on the floor were provided with cushions. The light entering in to the room was controlled using curtains and closing window sills. The temperature in the room was adjusted using the air conditioning facility available in the room.

2.3. DATA COLLECTION: SURVEY METHOD

Having completed 8 weeks of the meticulously designed mindfulness training programme, the researchers set out to collect data using a qualitative survey method. All the questions in the survey were open ended. Students were given the freedom to answer or choose not to answer any question they wanted. Questions were framed in such a way that they paved the way for an analysis of the results which will determine whether the mindfulness practice helped them improve their cognitive flexibility and equipped them with adequate skills to manage their stress better. Sample questions included:

- How have the mindfulness training helped you respond to new and challenging situations?
- Can you describe the way you used at academics before starting the mindfulness training programme and after completing the mindfulness training programme?
- Would you like to elaborate on any particular mindfulness practice that you thought were more effective?
- What are the differences you see in yourself when attending regular classes or doing your personal study after having completed the Mindfulness training?
- Would you like to tell us how you have been dealing with hurtful experiences before and after the training?

2.4. DATA ANALYSIS

The researchers conducted a thematic analysis of the survey responses to see if there were common themes and patterns in the responses. The qualitative approach that was adopted proved beneficial as it gave considerable insights into the impact of providing mindfulness training to high school students on their cognitive flexibility and ability to manage academic stress.

3. RESULTS

1) Improvements in Cognitive Flexibility

A careful analysis of the results obtained through the survey suggests remarkable improvement in cognitive flexibility. Two very distinct themes emerged from the responses:

- **Adaptability:** A large majority of the students reported that they find it easier to shift from one task to another after completing the mindfulness training programme. They felt that they became more open and receptive to suggestions and challenges.
- **Problem-Solving:** One of the widely experienced benefits of mindfulness training was that the participants felt that their problem-solving skills have improved. The participants felt that after completing the mindfulness training, they learnt to look at problems from multiple perspectives.

2) Reduction in Academic Stress

One of the key objectives of the research was to find out if practicing mindfulness can help high school students reduce academic stress. Two key themes that emerged from the responses to the survey questions are given below:

- **Stress Management:** Many students described how they have been able to mitigate stress and anxiety by virtues of mindfulness techniques such as deep breathing and meditation. The results suggest a reduction in the number of disciplinary issues the participants who practiced mindfulness meditation were involved.
- **Emotional Regulation:** Many participants responded to the questions on the ability to control emotions in the affirmative. As a result of the mindfulness training programme, many participants reported of experiencing less academic stress and an increased ability to control one's own emotions.

3) Enhanced focus and concentration

Many of the participants felt that they have an enhanced ability to concentrate and stay focused after completing the mindfulness training. Two of the general themes identified by the researcher were:

- **Increased ability to pay Attention:** It was understood from the responses that many students had developed a greater ability to pay more attention in the class and during their prep time. Some of the participants reported that prior to attending the mindfulness training, they were less likely to pay attention in the class even if they knew that the subject was important and that they had to pay attention. Having undergone the mindfulness training they developed the ability to stay focused for a longer period.
- **Effective study habits:** Another commonly reported benefit was that students who practiced mindfulness developed better study habits. Some started scheduling their study hours, some found better meta cognitive strategies and some found methods to relax themselves.

4) Overall Wellbeing

Students demonstrated improvements in their overall well-being. Themes identified included: :

- **Mental Health:** A number of participants reported that practicing mindfulness resulted in them becoming calmer and better balanced as compared to their previous selves. Even in the face of challenging situations they have learnt to be mindful and make better decisions.
- **Positive Attitude:** This was a widespread theme. Most of the students reported that they found themselves more positive towards school, family, friends and life in general. They attribute this change to the mindfulness training they received.

4. DISCUSSION

1) Implications for Educational Practice

The results of this study suggests that training of mindfulness needs to be considered as an important addition to the curriculum at school. This is because it will employ pragmatic methods in enhancing cognitive flexibility and will reduce academic stress. Academicians and educators may take the findings of this study as an indication that by providing mindfulness training to high school students they are in fact, set out to save a lot of time that is otherwise spent in solving discipline issues or revision classes.

2) Limitations and Suggestions for Further Research

Although this study provides valuable insights, it's not impeccable in the sense that it had a relatively small sample size and a short duration for the mindfulness training. It is imperative that there needs to be long term researches involving larger sample size selected from different parts of the country to further validate these findings.

5. CONCLUSION

The research suggests that mindfulness training helps in increasing cognitive flexibility and in reducing academic stress among high school students. The qualitative study method used in the present study was very successful for explaining the perceptions and experiences of participants and demonstrating potential benefits to be accrued in an educational context. One of the biggest challenges faced by educators working in the high schools across the country is

the lack of cognitive flexibility and undue academic stress of the learners. The study clearly indicates that providing carefully designed mindfulness practice at regular interval and encouraging students to practice the same will enhance cognitive flexibility and help build emotional resilience.

CONFLICT OF INTERESTS

None.

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