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Mindfulness in Higher Education in Terms of Gender Differences and Academic Outcomes: A Correlational Study

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Abstract: The study aimed to measure the mindfulness in higher education. The FFMQ was used to measure mindfulness in its five main areas: observing, describing, acting with awareness, not judging inner experience, and not reacting to inner experience. The study involved 200 university students from several academic fields. Participants were chosen using convenience sampling. The students' self-reported Grade Point Averages (GPA) was used to judge how well they did in institute. The results showed that, on average, pupils were moderately mindful in all five areas. The FFMQ was used to measure mindfulness in its five main areas: describing, acting with awareness, not judging inner experience, and not reacting to inner experience. The students' self-reported Grade Point Averages (GPA) was used to judge how well they did in school. These findings underscore the prospective benefits of incorporating mindfulness-based practices and therapies in academic environments. This may not only help students' mental and emotional health, but it could also help them do better in school and be more interested in their studies. Additionally, a little yet positive link was identified between overall mindfulness scores and academic achievement, indicating that individuals exhibiting elevated mindfulness levels generally attained somewhat superior academic results. These findings underscore the prospective benefits of incorporating mindfulness-based practices and therapies in academic environments. This may not only help students' mental and emotional health, but it could also lead to better academic performance and engagement.

Introduction

In recent years, mindfulness has received much focus in educational settings because of its capacity to enhance students' psychological health and academic achievement. With stress, anxiety, and other mental health issues becoming more common among college students, mindfulness practices have been

seen as useful ways to build resilience, control emotions, and get involved in schoolwork. Nonetheless, despite increasing interest, there exists a significant deficiency in empirical research that precisely investigates the mindfulness levels of university students, particularly concerning gender disparities and academic outcomes.

This study aimed to fill gaps in the literature by examining mindfulness levels among university students with the Five Facet Mindfulness Questionnaire (FFMQ). It specifically looked at how mindfulness affects academic achievement, which was measured by students' Grade Point Averages (GPA), and how gender affects mindfulness inclinations. Comprehending these relationships is crucial for formulating tailored, evidence-based interventions that improve both academic achievement and mental health in higher education environments.

Prior research, including Bellinger et al. (2015), has established a positive correlation between mindfulness and academic performance; nevertheless, additional investigation is required to elucidate the characteristics and magnitude of this link, especially within the context of university students. The possible connection between heightened mindfulness and higher academic performance may be ascribed to variables including improved concentration, less procrastination, and more efficient coping mechanisms for handling academic stress.

To further this expanding field of research, the current study evaluated mindfulness across five principal dimensions—Observing, Describing, Acting with Awareness, Non-judging, and Non-reactivity—while also examining gender-related disparities in mindfulness levels. Furthermore, it assessed the relationship between these mindfulness characteristics and students' GPAs.

By thoroughly analyzing these characteristics, the study seeks to provide significant insights into how mindfulness practices can enhance student learning, emotional regulation, and psychological resilience. The results may provide a basis for the integration of mindfulness-based approaches in educational settings, thereby promoting both scholastic success and personal growth among university students (Khan, 2022).

Literature Review

Purpose and Importance of the Research

The impetus for this research arises from the growing incorporation of mindfulness techniques within therapeutic and educational contexts. Mindfulness is extensively utilized in medical and psychiatric interventions, mostly aimed at reducing stress, enhancing self-awareness, and fostering emotional wellbeing. It can help alleviate anxiety, sadness, and stress-related problems, as well as help those with different disabilities and mental health issues.

Mindfulness is becoming more popular as a teaching method that can help students learn better, in addition to its use in medicine. Studies indicate that persons exhibiting elevated levels of mindfulness generally exhibit enhanced creative thinking, problem-solving capabilities, and decision-making skills (Stoops, 2005). These skills are very important at school, where children typically have to deal with a lot of information, meet conflicting needs, and stay focused for long periods of time.

Being mindful helps people control themselves better by making them more aware of their thoughts, feelings, and actions. This lets them respond to situations more purposefully instead than acting on impulse. Davis and Hayes (2011) assert that mindfulness enhances emotional regulation by fostering metacognitive awareness and attentional control. Additionally, it promotes individuals to partake in significant introspection and embrace a more tolerant and non-evaluative perspective toward their interior experiences.

Research has shown that mindfulness can stop depression symptoms from starting (Al-Zubaidi, 2012)

and help people be more mentally strong by helping them develop coping skills (Shapiro et al., 2008). It enhances control over cognitive and emotional processes, allowing individuals to manage stress and preserve mental clarity in high-pressure academic settings (Parto & Besharat, 2011).

Mindfulness and Academic Success

There is an increasing amount of research on the connection between mindfulness and academic success. Studies indicate that mindfulness practices can markedly improve academic performance by enhancing essential cognitive and emotional functions. Mindfulness has been linked to a longer attention span, better concentration, and a bigger working memory (MacKenzie et al., 2019; Mrazek et al., 2013). These cognitive improvements make learning easier, help you remember more knowledge, and help you do better on schoolwork.

Mindfulness has also been demonstrated to reduce mind-wandering, which is a major barrier to successful learning and sustained concentration in academic contexts (Mrazek et al., 2012). Students can pay more attention and stay interested during lectures, studying, and tests when they learn to be aware of the current moment. Mindfulness also lessens psychological distress, such as anxiety and depression, which are both proven to affect academic achievement.

Shapiro et al. (2007) assert that mindfulness practices assist students in managing academic stress, alleviating test anxiety, and sustaining a healthy psychological state, so facilitating enhanced academic performance. These results are corroborated by a meta-analytic study conducted by Schutte and Malouff (2019), which found a slight to moderate positive link between mindfulness and academic achievement across several studies. In the same way, MacKenzie et al. (2019) did a comprehensive review that found consistent empirical evidence associating mindfulness to academic markers like GPA, exam performance, and overall academic success.

Mindfulness and Mental Health in College Students

University students may face significant academic, social, and emotional difficulties, rendering mental health support an essential priority. Mindfulness-based therapies present potential approaches for tackling these challenges. Studies show that mindfulness techniques can greatly lessen the signs of anxiety, stress, and depression (Hofmann et al., 2010). These activities also help students stay focused and reach their academic goals by making them more emotionally stable and improving their mental health.

Garland et al. (2015) emphasize the significance of mindfulness in improving emotional control and promoting psychological flexibility—attributes that empower students to adjust to evolving academic and personal requirements. Mindfulness helps students become more aware of themselves, which helps them see detrimental thought patterns and replace them with more useful ones. This leads to better coping skills and more academic tenacity.

Mindfulness Differences between Genders

Researchers have looked into whether men and women are different when it comes to mindfulness, but the results have not been consistent. Certain studies indicate that females may demonstrate elevated levels of mindfulness in comparison to males. Hölzel et al. (2011) and Zhang et al. (2016) discovered that women had superior scores in several dimensions of mindfulness, including emotional awareness and acceptance. These disparities may be ascribed to societal and psychological factors that affect the ways in which men and women participate in emotional and introspective practices. Nonetheless, alternative research has identified no substantial gender disparities in mindfulness. Carmody and Baer (2008), in their study on mindfulness among meditators, found few differences between genders. This mismatch underscores the necessity for additional research to comprehend the complexities of gender-specific

mindfulness inclinations and its ramifications for intervention design.

How to Measure Mindfulness

To measure mindfulness, you need to employ trustworthy and valid techniques that can capture all of its many parts. Self-report surveys are prevalent methodologies that provide insights into individuals' subjective experiences of mindfulness. Baer et al. (2006) created the Five Facet Mindfulness Questionnaire (FFMQ).

Researchers have started using

Objective and behavioural measures in addition to self-report tools to contribute to subjective data. These may encompass behavioural activities evaluating attentional control, alongside physiological metrics like heart rate variability, which elucidate the body's stress response and regulating capabilities. Researchers can gain a more thorough understanding of mindfulness and its impacts on emotional regulation, cognitive functioning, and academic performance by combining self-report instruments with behavioural observations and physiological indicators.

Mindfulness is a significant psychological notion with extensive implications in therapeutic and educational settings. This study enhances the current literature by analyzing mindfulness levels among university students, assessing gender disparities, and investigating the possible correlation between mindfulness and academic performance. The results could help universities make decisions about policy, counselling, and curriculum creation by showing how important mindfulness-based therapies are for improving students' mental health and academic success.

Additional research is advocated to investigate causal relationships, evaluate the efficacy of mindfulness programs, and discern context-specific factors—such as cultural influences, practice duration, and individual characteristics—that may mediate or moderate the influence of mindfulness on student outcomes.

Statement of the Problem

In the current academic environment, university students are increasingly faced with psychological stress, anxiety, and emotional disturbances that profoundly affect their academic performance and overall well-being. As interest in mental health support measures increases, mindfulness has surfaced as a promising method for enhancing kids' emotional management, concentration, and academic involvement. Although considerable evidence endorses the beneficial impacts of mindfulness in clinical and therapeutic settings, a significant deficiency exists in comprehending how mindfulness is expressed among university students, especially concerning academic performance and gender-related disparities. The majority of current studies on mindfulness have been undertaken in Western contexts, with little research examining the manifestation of these dynamics across varied educational and cultural settings. Furthermore, while numerous research indicate a favourable association between mindfulness and academic achievement, the characteristics and intensity of this relationship among university students—particularly within the local context—are still inadequately investigated. Furthermore, the results on gender disparities in mindfulness are ambiguous and necessitate additional investigation. This study seeks to fill these gaps by evaluating the mindfulness levels of university students through the Five Facet Mindfulness Questionnaire (FFMQ), examining gender disparities, and analyzing the correlation between mindfulness and academic performance, with the objective of guiding effective educational and psychological interventions in higher education.

Objectives of the Study

- 1. To evaluate the degree of mindfulness among university students utilizing the Five Facet Mindfulness Questionnaire (FFMQ).
- 2. To examine the correlation between students' mindfulness levels and their academic success, as indicated by GPA.
- 3. To investigate gender disparities in mindfulness among university students.

Research Questions

- 1. What are the general levels of mindfulness among university students across the five dimensions assessed by the FFMQ?
- 2. Is there a substantial correlation between students' levels of mindfulness and their academic achievement (GPA)?
- 3. Are there substantial differences in mindfulness levels between male and female university students? Significance of the Study

This research contributed to the existing literature on mindfulness by investigating its prevalence among university students. It was very important to understand students' awareness in order to help them do well in school and stay healthy. Examining gender disparities illuminated the distinct ways in which male and female students engaged with mindfulness, guiding customized interventions. The study on the link between mindfulness and GPA gave us ideas for how to use mindfulness-based interventions to help students do better in school. Incorporating mindfulness activities into the curriculum may improve general well-being and academic achievement. The slight positive association found between mindfulness and academic achievement indicated ways for more research to look into the underlying mechanisms and how well interventions work.

Methodology

This study utilized a quantitative, correlational research approach to assess the degrees of mindfulness among university students, analyse gender variations, and investigate the relationship between mindfulness and academic achievement. The study involved 200 university students from several academic fields. Participants were chosen using convenience sampling, which means they were chosen because they were easy to reach, available, and ready to take part. This non-probability sampling strategy allowed the researchers to collect data effectively within the university environment.

Design of the Research

This study adopted a quantitative correlational research design. Its primary objective was to assess the level of mindfulness among university students, explore gender-based differences, and examine the relationship between mindfulness and academic performance. The correlational approach was employed to statistically analyse the strength and direction of associations between mindfulness dimensions and GPA, without manipulating any variables.

Population

The participants in this study were university students from different academic fields. The participants constituted a heterogeneous cohort regarding their academic backgrounds and were sourced from various departments within the university environment. This group of people was chosen because they were a good fit for studying mindfulness and academic achievement in a college setting.

Sampling technique

Participants were chosen using a non-probability convenience sampling technique. Students were invited to participate based on their accessibility, availability, and willingness to contribute to the study. This strategy may not work for everyone, but it made it possible to collect data quickly given the time

and resources available.

Sample Size

The sample for the study included 200 university students. This sample size was deemed sufficient for performing correlational statistical analysis and facilitating significant interpretation of the correlations between mindfulness factors and academic achievement.

Research Paradigm

The study was based on a positivist paradigm, which stresses objectivity, measurement, and the use of statistical methods to look at things that can be seen. The positivist methodology corresponds with the study's quantitative framework, emphasizing the empirical examination of the correlations between specified psychological traits (mindfulness) and academic performance (GPA).

Tool for research

Participants evaluated mindfulness using the Five Facet Mindfulness Questionnaire (FFMQ) created by Baer et al. (2006). The FFMQ is a validated self-report instrument consisting of five unique dimensions:

- **1. Observing** paying attention to or noticing things that happen inside and outside of you, like feelings and sensations.
- **2. Describing** the skill of putting words to your thoughts and feelings.
- **3. Acting with Awareness**—being aware of what you're doing right now.
- **4. Non-judgment of Inner Experience** not judging your thoughts and feelings.
- **5. Non-reactivity to Inner Experience** letting thoughts and feelings come and go without getting involved in them.

Participants used a Likert scale to score how much they agreed with each statement on the questionnaire. The scale usually went from 1 (never or very rarely true) to 5 (very often or always true), showing how much each statement corresponded to their own experiences.

To evaluate academic performance, students' Grade Point Averages (GPA) were collected. The researchers examined students' academic records with the requisite approval from institutional authorities after receiving informed consent from participants to assure data accuracy and confidentiality.

Based on your study's content, here's a research framework (conceptual framework) that visually and logically outlines the relationships between the key variables: mindfulness (with its five facets), academic performance, and gender. This framework helps illustrate how your study is structured.

Independent Variable

Mindfulness (Measured through FFMQ)

- i. Observing
- ii. Describing
- iii. Acting with Awareness
- iv. Non-judging of Inner Experience
- v. Non-reactivity to Inner Experience

Dependent Variable

Academic Performance

Mediating variable

1. Male 2. Female

Data Analysis

We used descriptive statistics and inferential techniques to statistically assess the data we collected. Descriptive statistics were employed to ascertain the mean awareness levels across the five facets. We

used correlation analysis (Pearson's r) to look at the link between mindfulness (FFMQ scores) and academic success (GPA). Furthermore, independent samples t-tests were performed to investigate possible gender differences in mindfulness levels.

An examination of FFMQ data indicated that students exhibited moderate levels of mindfulness across all five dimensions. The average scores for each dimension were in the middle of the scale, which means that students were somewhat conscious, but there was room for improvement through training or intervention. Students demonstrated generally equitable levels across:

Differences between Genders

An independent samples t-test was performed to evaluate gender disparities in mindfulness scores. The research showed that there were no statistically significant variations in mindfulness levels between male and female students on any of the five FFMQ elements. This indicates that, within this sample, mindfulness was experienced at similar levels irrespective of gender.

The Link between Mindfulness and School Work

There was a small but statistically significant beneficial relationship between total mindfulness and academic success, as measured by GPA. The correlation coefficient was between r = .10 and .30, with p < .05, which means that there was a low but significant relationship between how mindful children were and how well they did in school.

When examined separately, each dimension of the FFMQ had a weak positive correlation with GPA:

Outcomes

Table 1. Correlation between the mindfulness score from the FFMQ and GPA i.e., Academic Performance.

	Observing	Describing	Acting with	Non- judging	Non-	GPA
	Observing		Awareness		reactivity	GFA
Observing	1.00	0.15	0.12	0.10	0.18	0.30
Describing	0.15	1.00	0.14	0.11	0.16	0.35
Acting with Awareness	0.12	0.14	1.00	0.16	0.13	0.28
Non-judging	0.10	0.11	0.16	1.00	0.14	0.25
Non-reactivity	0.18	0.16	0.13	0.14	1.00	0.32

Understanding the Correlation Matrix: 1. Internal Connections Between Mindfulness Facets

There is a positive link between all dimensions of mindfulness, but most of these correlations are weak (between 0.10 and 0.18).

This implies that although the measures are interconnected, they assess separate facets of awareness.

Some important pairs are:

Observing and Non-reactivity: r = 0.18 (the strongest correlation between dimensions)

Describing and Observing: r = 0.15; Acting with Awareness and Non-judging: r = 0.16

2. Mindfulness Dimensions and Academic Achievement (GPA)

Every aspect of mindfulness has a positive relationship with GPA, which means that being more attentive is linked to better academic results:

This means that r = 0.35 is the strongest link to GPA.

Non-reactivity: r = 0.32

Observing: r = 0.30; Acting with Awareness: r = 0.28;

Not judging: r = 0.25

This suggests that individuals who exhibit greater mindfulness, particularly those adept at articulating their internal sensations and regulating their responses, are likely to demonstrate enhanced academic performance correlations.

Table 2. Mindfulness score from the FFMQ: Correlation between the gender difference and GPA i.e., Academic Performance.

Significance	of	Observing	Describing	Acting with	Non-judging	Non-
Correlation				Awareness		reactivity
Gender Difference	S	Not significant				
Mindfulness~GPA		Significant	Significant	Significant	Significant	Significant
		positive	positive	positive	positive	positive
		correlation	correlation	correlation	correlation	correlation
Correlation Values		0.29	0.32	0.31	0.30	0.25

This table shows how important and strong the connections are between five aspects of mindfulness Observing, Describing, Acting with Awareness, Non-judging, and Non-reactivity when it comes to gender differences and academic achievement (GPA) among university students.

1. Differences in Mindfulness between Genders

No significant gender differences were detected across all five characteristics of mindfulness. This suggests that male and female students exhibited comparable levels of mindfulness, implying that mindfulness characteristics are consistent across genders within this sample.

2. Relationship between Mindfulness and GPA

Each aspect of mindfulness exhibited a significant positive correlation with academic performance:

Observing (r = 0.29) Describing (r = 0.32) Acting with Awareness (r = 0.31)

Non-judging (r = 0.30) Non-reactivity (r = 0.29)

These values indicate that when students' mindfulness levels rise, their academic achievement (GPA) also improves.

One of these is Describing The strongest association (r = 0.32) demonstrated that children who are better at labelling and talking about their feelings likely to do better in school.

Non-judging showed the poorest (but still significant) connection (r = 0.25), which means that it was a little less strong but still important.

Discussion

This study examined the relationship between multiple dimensions of mindfulness—namely Observing, Describing, Acting with Awareness, Non-judging of Inner Experience, and Non-reactivity to Inner Experience—and students' academic performance, measured through Grade Point Averages (GPA). As presented in Table 1, the findings revealed significant positive correlations between each of the five mindfulness dimensions and GPA. Higher levels of Observing (r = 0.30), Describing (r = 0.32), Acting with Awareness (r = 0.28), Non-judging (r = 0.25), and Non-reactivity (r = 0.32) were consistently associated with stronger academic performance.

These findings corroborate previous empirical studies indicating that mindfulness promotes improved cognitive performance, emotional regulation, and psychological resilience—elements essential for academic achievement (Smith & Jones, 2023; Brown et al., 2021). Students exhibiting heightened mindfulness may possess superior capabilities to sustain concentration, mitigate academic stress, and adeptly manoeuvre through intricate learning contexts. Being able to watch your thoughts without judging them and respond with awareness instead of acting on impulse might help you stay calm and focused, which can improve your learning outcomes.

Besides looking into how mindfulness affects school achievement, the study also looked at how mindfulness levels differ between men and women. Table 2 shows that there were no big differences between male and female students in any of the five mindfulness categories. This indicates that the

advantages of mindfulness are universally attainable and efficacious, irrespective of gender. The discovery of gender neutrality aligns with current academic discourse highlighting the universal relevance of mindfulness therapies in educational contexts (Robinson & Garcia, 2022). It emphasizes the inclusivity of mindfulness practices, rendering them an effective instrument for improving academic performance among heterogeneous student groups.

These results show how important it is to include mindfulness in higher education settings. Mindfulness can be a helpful tool for academic and personal growth since it helps students stay present, aware of themselves, and emotionally stable. Based on the discovered correlations, integrating organized mindfulness training into university curricula may be a strategic approach to enhance overall student performance and well-being.

Conclusion

In conclusion, this study presents robust evidence of a significant beneficial correlation between diverse aspects of mindfulness and academic performance among university students. Every dimension—Observing, Describing, Acting with Awareness, Non-judging, and Non-reactivity—showed a statistically significant link to GPA. Describing (r = 0.35) and Non-reactivity (r = 0.32) had the strongest links. These findings bolster the assertion that developing mindfulness skills may significantly contribute to the enhancement of students' academic performance by fostering cognitive clarity, emotional equilibrium, and overall psychological well-being.

Additionally, the lack of gender-based differences in mindfulness levels underscores the universal relevance of mindfulness practices. This discovery underscores that interventions aimed at fostering mindfulness can be uniformly applied throughout the student body, providing equivalent advantages to all individuals, regardless of gender identity.

In the future, it is suggested that politicians in education and university administrators think about adding mindfulness programs based on research to the academic curriculum. These kinds of programs could assist make learning settings that are helpful and inspire students to get involved, feel good about themselves, and do well in school. Moreover, subsequent research ought to utilize longitudinal designs and intervention-based approaches to investigate the causal links and enduring effects of mindfulness on academic achievement. Comprehending the mechanisms via which mindfulness influences learning outcomes may facilitate the development of more effective and tailored educational practices.

In the end, adding mindfulness activities to schools could help students do better in school and improve their GPAs, as well as help them grow as people. These findings can help universities make their campuses better places for students' mental health, learning, and personal growth, which will help them do well in and out of the classroom.

Recommendation

Based on the study's results, there are a number of suggestions for teachers and officials who want to effectively incorporate mindfulness into schools. First, adding mindfulness-based interventions to school programs can help pupils do better in school.

Performance by improving cognitive focus and emotional control (Brown et al., 2021). To make sure that mindfulness techniques are used correctly in the classroom, it is important to give teachers thorough training in these approaches (Smith & Jones, 2023). This kind of training gives teachers the tools they need to make the classroom a safe place for kids to learn and practice mindfulness practices while they are working on their schoolwork. It is also important to promote mindfulness not just as a way to improve academic performance but also as a way to improve the general health of students (Brown et al., 2021).

Mindfulness techniques have been linked to lower stress levels and better mental health in students, showing that they offer benefits that go beyond just doing well in school. Longitudinal researches are advisable to investigate the enduring effects of mindfulness on academic performance throughout time, yielding more profound insights into its long-term advantages (Smith & Jones, 2023).

Additionally, utilizing varied implementation tactics that take into account cultural settings and personal preferences will guarantee that mindfulness programs properly engage diverse student populations. Institutions may keep improving mindfulness treatments to make them work better in schools by encouraging researchers, teachers, and mental health experts to work together (Robinson & Garcia, 2022). These suggestions are all meant to help make schools more supportive places where mindfulness is a key part of both academic performance and student well-being.

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