



## Exploring The Interplay of Mindfulness and Stress among College Students

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### Abstract

In this quantitative study, the primary focus was to comprehend the dynamic interactions between stress levels and mindfulness in college students, a population that is frequently prone to high stress levels as a result of pressures from their studies and life changes. To gauge participants' awareness across a range of dimensions, the FFMQ-15, or Five Facet Awareness Questionnaire, a commonly used instrument for measuring multiple aspects of mindfulness, was utilised. Additionally, the Perceived Stress Scale (PSS) was used to quantify the subjects' subjective sensations of stress.

Data collection was facilitated through digital platforms like WhatsApp, offering a convenient and accessible means of reaching a diverse sample of college students. Statistical analysis was used to carry out a quantitative examination into the association between stress levels and mindfulness, namely the Pearson correlation coefficient. The significant negative correlation coefficient ( $r = -0.588$ ) revealed a substantial inverse association between stress and mindfulness, implying that individuals' perceived levels of stress were lower when they practiced mindfulness. In addition, the majority of students showed intermediate levels of stress and mindfulness, which emphasises the need for focused interventions that improve mindfulness techniques in order to reduce stress and enhance general well-being in college populations.

*Keywords:* Mindfulness, Stress, College Students.

### **Introduction**

The transition to college life introduces significant social and academic challenges that often heighten stress levels, negatively impacting students' mental health, academic performance, and overall well-being. College students who experience high levels of stress are more likely to experience physical and mental health problems and have a lower quality of life. These difficulties highlight the need for practical methods to reduce stress and increase this population's resilience.

Present-moment awareness combined with non-judgmental acceptance is known as mindfulness, and it has become a popular strategy for stress management and mental health enhancement. Mindfulness exercises including body scans, mindful movement, and meditation have been shown to improve psychological resilience and lessen the symptoms of anxiety, sadness, and stress. Because it promotes self-awareness, emotional control, and acceptance, mindfulness is a useful strategy for managing the particular challenges of college life.

Examining the connection between stress and mindfulness in college students provides important information for creating focused interventions. Numerous research have demonstrated the potential benefits of

mindfulness-based therapies in lowering stress and improving wellbeing, including mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT). Furthermore, knowing the physiological processes by which mindfulness reduces stress, such as the control of the hypothalamic-pituitary-adrenal (HPA) axis and autonomic nervous system activity, might guide future studies and the creation of interventions.

This study seeks to explore the interplay between mindfulness and stress among college students, focusing on the potential of mindfulness to mitigate stress and foster resilience. By examining these dynamics, this research aims to contribute to the development of effective, evidence-based strategies for supporting the mental health and academic success of this demographic.

### **LITERATURE OF REVIEW**

Over the past ten years, research on the connection between stress and mindfulness among college students has exploded due to worries about mental health and wellbeing in higher education settings. Research has repeatedly shown that stress is common among college students, and that this population has significant levels of anxiety, depression, and stress-related symptoms

(Chowdhury & Chowdhury, 2020; Eisenberg et al., 2007). College students experience a high stress load that affects their mental health and academic performance due to a variety of factors, including financial concerns, social transitions, academic expectations, and personal difficulties (Hunt & Eisenberg, 2010; Sani et al., 2016).

Interventions focused on mindfulness have shown promise in lowering stress and promoting wellbeing among college students. Stress reduction, mood regulation, and increased resilience are just a few of the psychological advantages that have been linked to mindfulness, which is distinguished by present-moment awareness and non-judgmental acceptance (Keng et al., 2011; Shapiro et al., 2006). Research has demonstrated that college students' symptoms of stress and anxiety can be effectively reduced by interventions including mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT) (Regehr et al., 2013; Vøllestad et al., 2012).

Certain research have demonstrated significant inverse associations between mindfulness and perceived stress, suggesting that higher levels of mindfulness are related with lower levels of stress and psychological

discomfort (Hwang et al., 2019; Nair et al., 2020). Other research indicates that some components of mindfulness, such as nonjudgmental acceptance and present-moment awareness, are especially helpful in predicting college students' capacity for stress management (De Bruin et al., 2012; Sauer et al., 2013).

In a 2016 study, college students in the northern Indian state of Haryana participated in a mindfulness and stress experiment led by Shinaasa, S., Puri, D. A., and Shukla, P. A. The results of the study showed that among the sample of college students, stress and mindfulness were significantly correlated negatively. This implies that when awareness rises, stress decreases. The study, which focused on looking at how mindfulness affected angry college students, also found that there was no appreciable change in the college students' adjustment when mindfulness was present.

The results of the study showed a significant inverse relationship between stress and mindfulness in the sample of college students. These therapies typically take the form of structured programmes that incorporate body scan exercises, mindfulness meditation, and mindful movement approaches (Carmody & Baer,

2008; Khoury et al., 2013). Furthermore, studies on the feasibility and acceptability of providing mindfulness therapies in college settings have yielded encouraging results regarding participant engagement and retention (Galante et al., 2018; Regehr et al., 2013).

Vonderheyde (2017) looked at "the relationship between Mindfulness and Stress among College Students". Additionally, the consenting students completed two anonymous self-report data collection questionnaires that were completely voluntary. This study found that stress and mindfulness were negatively correlated, with students' overall stress levels being moderate. The results of the study indicated that stress levels were lower in those with high overall mindfulness scores.

## **NEED/IMPORTANCE OF THE STUDY**

Numerous stressors, such as financial concerns, personal issues, social pressures, and academic demands, are experienced by college students. These stressors can lead to elevated levels of anxiety, sadness, and stress-related illnesses. To effectively support students in managing stress and

promoting their mental health, it is imperative to comprehend the relationship between mindfulness and stress.

College students may find that mindfulness exercises are effective therapies for lowering stress and improving wellbeing. Through practicing mindfulness, students can learn to control their emotions, respond to stressors more skillfully, and develop a stronger sense of resilience by developing present-moment awareness and non-judgmental acceptance. The goal of research on the connection between stress and mindfulness is to clarify the fundamental processes by which mindfulness affects stress results and to identify the particular aspects of mindfulness that are most helpful in reducing stress. The creation and application of mindfulness-based therapies catered to the particular requirements and difficulties faced by college students can be informed by the insights obtained from this study.

Furthermore, knowing how mindfulness and stress are related has larger ramifications for encouraging resilience and well-being on college campuses. Incorporating mindfulness techniques into wellness initiatives and support services offered by colleges can give students important tools and resources for stress management,

improving self-care routines, and building a feeling of belonging. Colleges and universities can foster environments that support students' holistic development and academic performance by placing a high priority on the mental health of their students and providing easily available, evidence-based therapies. In the end, studies on stress and mindfulness in college students advance the larger objective of fostering mental health and wellbeing in the higher education system and equipping individuals to succeed in all facets of their lives.

## OBJECTIVES OF THE STUDY

1. Examine the connection between college students' reported stress and their mindfulness levels.
2. Give useful advice on creating mindfulness programmes to help college students deal with stress.
3. Expand on our knowledge of the ways in which mindfulness might enhance college students' academic success and overall well-being.

## HYPOTHESIS

H1: There will be a notable distinction between the high and low mindfulness levels

among college students and the stress they report having.

H2: A high degree of awareness and a low level of mindfulness will differ significantly, in terms of general wellbeing and academic performance in college.

## Method

**Research Design:** This study's research strategy looked at the connection between stress and mindfulness in college students using a quantitative approach. A cross-sectional survey methodology was used to collect data from a sample of college students, allowing us to acquire an instantaneous picture of their perceived stress levels and degrees of mindfulness. The survey included validated measures of perceived stress, like the Perceived Stress Scale (PSS), and mindfulness, like the Five Facet Mindfulness Questionnaire (FFMQ), to assess participants' levels of mindfulness and subjective experiences of stress. Additionally, demographic information (such as age, gender, and academic major) and pertinent features (such as prior mindfulness practice) were acquired.

**Sample and Sample Size:** The sample for this study comprised college students from both undergraduate (UG) and postgraduate

(PG) programs, representing diverse fields of study such as science, arts, humanities, and social sciences. By distributing survey questionnaires, a total of 100 college students were first contacted and encouraged to take part in the study. However, seven participants did not respond for private reasons, including lack of interest or time constraints. Thus, 93 college students who answered the survey questionnaires made up the final sample size for analysis. The distribution of participants across academic levels (UG and PG) and fields of study was representative of the student population in the participating colleges or universities.

**Research Tools Used:** The primary tools utilised in this study to collect data on mindfulness and stress levels among college students were the Perceived Stress Scale (PSS) and the Five Facet Mindfulness Questionnaire (FFMQ-15).

1. FIVE FACET MINDFULNESS QUESTIONNAIRE (FFMQ-15):  
Shorter than the original Five Facet Mindfulness Questionnaire (FFMQ), the Five Facet Mindfulness Questionnaire (FFMQ-15) was created to evaluate several aspects or dimensions of mindfulness. It is

appropriate for use in research contexts where brevity is crucial because it was created to offer a succinct yet thorough measurement of mindfulness. Ruth Baer, a well-known mindfulness researcher, created the Five Facet Mindfulness Questionnaire (FFMQ-15). Baer teaches psychology at the University of Kentucky and works as a clinical psychologist. The FFMQ-15 has fifteen tasks that encompass the five fundamental aspects of mindfulness: observing, describing, acting mindfully, being non-judgmental, and remaining non-reactive.

Participants assess the frequency with which they engage in the mindful actions or experiences mentioned in each item on the FFMQ-15 using a Likert scale that typically ranges from 1 (rarely or not at all true) to 5 (very often or always true), stronger scores indicate stronger levels of mindfulness throughout the five components of the FFMQ-15, which serves as an overall assessment of mindfulness.

Some of the questions are reverse scored namely 3, 4, 7, 8, 9, 13 & 14.

Higher scores indicate higher level of mindfulness in everyday life.

1. **PERCEIVED STRESS SCALE:** The Perceived Stress Scale (PSS) is a well-liked self-report tool that helps people determine how stressful they believe their lives are. Sheldon Cohen, Tom Kamarck, and Robin Mermelstein developed the PSS in 1983 in an effort to gauge each person's personal level of stress in a given situation. This includes how unpredictable, overpowering, and uncontrolled a situation may feel at any one time. The PSS consists of 10 items on which respondents rate how frequently they had considered and felt about stressful situations that had occurred in the month prior. Instead of concentrating on specific pressures, the scale asks participants to rate their overall level of stress in their lives. The purpose of the items is to document how stressed out a person reports feeling in different situations and how well they believe they can handle such situations. Higher scores correspond to reported stress levels that are higher. Typically,

the PSS is scored by adding the answers to each item to get a total score. Depending on the scale version being used, response options may differ; nevertheless, they typically span from "Never" to "Very Often" or from "0" to "4". For questions 4, 5, 7, and 8, the scores are inverted.

Individual scores on the PSS can vary between 0-40

- (a) A stress score of 0–13 is considered less.
- (b) Moderate stress is defined as a score between 14 and 26.
- (c) A score of 27–40 is thought to indicate high levels of perceived stress.

**Research Procedure:** The research procedure involved the administration of a survey to college students. With a sample size of 93 college students, the study sought to gain insights into the stress experiences and mindfulness practices within this demographic.

Participants were gathered from college campuses by sending direct messages to those who indicated interest in taking part in the study or by posting announcements on relevant WhatsApp groups for

college students. The recruitment messages gave a concise synopsis of the study's objectives, methods, and qualifying requirements. Participants were asked to participate willingly in order to learn more about the relationship between stress and mindfulness in college students.

Google Forms was used to build the poll, and WhatsApp was used to distribute it. Standardised tools including the Perceived Stress Scale (PSS) and the Five Facet Mindfulness Questionnaire (FFMQ-15), which are both highly respected measures in psychological research, were incorporated in the questionnaire. For every questionnaire issue, the participants were given a range of response alternatives, such as open-ended questions and Likert scales.

#### DATA MANAGEMENT AND DATA ANALYSIS

After the participants completed the FFMQ-15, or the Five Facet Mindfulness Questionnaire, and the Perceived Stress Scale (PSS), the results were meticulously recorded into an Excel spreadsheet. Each

participant's responses on both scales were included in the spreadsheet, which made it easier to organise and analyse the data. To find out more about the individuals' subjective stress and mindfulness levels, descriptive statistics were employed. For the PSS and FFMQ-15 scores, this necessitated calculating summary metrics, such as means and ranges. To learn more about the connection between stress and mindfulness in college students, bivariate analysis methods like the Pearson correlation coefficient were used in addition to descriptive statistics.

#### Result

The following section presents the findings of the study conducted to examine the relationship between mindfulness and stress among college students,

#### Descriptive Statistics

The mean and standard deviation values for mindfulness and stress are provided in Table 1. The mean mindfulness score was 43.68 (SD = 6.86), and the mean stress score was 21.60 (SD = 5.31), based on a sample of 93 participants.



<b>Total</b>	<b>93</b>	<b>100</b>
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**TABLE 1**

Mean and Standard Deviation of  
Mindfulness and Stress

<b>Variable</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>N</b>
Mindfulness	43.68	6.86	93
Stress	21.60	5.31	93

### Mindfulness Levels

The Five Facet Mindfulness Questionnaire (FFMQ-15) was used to categorize participants' mindfulness levels. Table 2 shows that 62% of participants (n = 58) exhibited moderate mindfulness, while 37% (n = 34) demonstrated high mindfulness. Only 1% (n = 1) reported low mindfulness levels.

**Table 2**

Frequency and Percentage of Mindfulness  
Levels (FFMQ-15)

<b>Mindfulness Level</b>	<b>Frequency (n)</b>	<b>%</b>
High Level	34	37
Moderate Level	58	62
Low Level	1	1

### Stress Levels

Stress levels, assessed using the Perceived Stress Scale (PSS), are presented in Table 3. The majority of participants (74%, n = 69) reported moderate stress, 17% (n = 16) reported high stress, and 9% (n = 8) reported low stress.

**Table 3**

Frequency and Percentage of Stress Levels  
(PSS)

<b>Stress Level</b>	<b>Frequency (n)</b>	<b>%</b>
High Level	16	17
Moderate Level	69	74
Low Level	8	9
<b>Total</b>	<b>93</b>	<b>100</b>

### Correlation Between Mindfulness and Stress

A Pearson correlation analysis was conducted to explore the relationship between mindfulness and stress. The results showed a significant negative correlation,  $r = -0.588$ ,  $p < .01$ , indicating that higher levels of mindfulness were associated with lower levels of perceived stress.

**Table 4**

Correlation Between Mindfulness and Stress

Variables	Correlation (r)	N	Significance
Mindfulness and Stress	-0.588	93	Negative and Significant

This finding supports the hypothesis that mindfulness is inversely related to stress, suggesting that mindfulness interventions may be beneficial for managing stress among college students.

### Discussion

The results of this study show that stress and mindfulness are significantly correlated negatively among college students, with a Pearson correlation value of  $r = -0.588$  ( $p < .01$ ). This finding is consistent with earlier studies that highlight the potential of mindfulness-based therapies in stress

reduction (Kabat-Zinn, 2003; Shapiro et al., 2006) and supports the idea that greater mindfulness is linked to decreased perceived stress.

### CRITICAL ANALYSIS OF THE FINDINGS

The significant negative correlation between stress and mindfulness emphasises the function of mindfulness as a stress-reduction strategy. People who engage in mindfulness exercises, which promote acceptance of one's thoughts and feelings as well as present-moment awareness, seem to be able to manage stress more effectively. The broaden-and-build approach, which contends that psychological resilience is improved by positive experiences like mindfulness, is in line with this study (Fredrickson, 2001).

Despite its significance, the correlation does not prove causation. There are other ways to explain this relationship. People who are naturally less stressed, for example, may be more likely to practise mindfulness or find it more beneficial. Furthermore, as these characteristics are linked to both mindfulness and reduced stress levels, personality factors like greater emotional stability or conscientiousness may modulate this relationship (Baer et al., 2006). To offer a more complex picture of the mechanisms

behind the mindfulness-stress dynamic, future studies could look into these moderating aspects.

The results add to the increasing amount of research demonstrating the effectiveness of mindfulness-based interventions (MBIs), including Mindfulness-Based Cognitive Therapy (MBCT) and Mindfulness-Based Stress Reduction (MBSR), in fostering students' mental health (Segal et al., 2002). Notably, earlier research has shown that MBIs enhance emotional control and cognitive function, two aspects that are essential for academic achievement, in addition to lowering stress (Greeson et al., 2014). The results of the current study support these conclusions and imply that mindfulness practice, even at moderate levels, can have a significant positive impact on stress reduction.

Through its effects on the autonomic nervous system and the hypothalamic-pituitary-adrenal (HPA) axis, mindfulness techniques are believed to physiologically reduce the stress response. Previous studies have shown that mindfulness improves parasympathetic activation and decreases cortisol levels and sympathetic nervous system activity, which results in better emotional control and

relaxation (Chiesa & Serretti, 2009). The association found in this study may be explained in part by these physiological processes.

This work has limitations that should be taken into account despite its contributions. First, it is impossible to establish a causal relationship between stress and mindfulness due to the cross-sectional design. To determine the causal effect of mindfulness therapies on stress reduction, longitudinal or experimental research is required. Second, the accuracy of the results may be impacted by answer biases and social desirability in self-reported measures like the FFMQ-15 and PSS. Objective measurements, including physiological indicators of stress, could be used in future studies to confirm these findings.

Furthermore, the study did not investigate the potential differential effects of particular mindfulness techniques on stress levels, such as mindful movement or meditation. Examining these subtleties could help create therapies that are more focused and successful.

The study emphasizes how important mindfulness is in lowering college students' perceptions of stress. These results are in line with previous studies and imply that mindfulness exercises can be useful instruments for promoting resilience and mental health in the classroom. Future studies can clarify the intricate relationship between stress and mindfulness by resolving the limitations and investigating other theories, which will eventually guide evidence-based strategies to promote students' wellbeing.

### **Conclusion**

This study highlights the important role that mindfulness plays in reducing stress and improving general well-being by demonstrating the significant inverse association between mindfulness and stress among college students. The results offer strong proof that reduced perceived stress is linked to higher mindfulness levels, demonstrating mindfulness as a useful coping mechanism to meet the particular difficulties faced by students in educational environments.

Beyond its theoretical contributions, this research has practical consequences for educational institutions. Colleges' approaches to stress management might be completely transformed by including

mindfulness-based therapies into wellness initiatives and student support services. Certain actions, including providing mindfulness classes at orientation sessions, incorporating mindfulness practices into counseling services, and setting up special meditation areas on campus, may give students useful skills to deal with the demands of school.

For mindfulness programs to be implemented successfully and remain sustainable, cooperation amongst campus stakeholders—including administrators, faculty, student organizations, and mental health professionals—is essential. Institutions ought to create thorough, research-based stress-reduction plans that are adapted to the various needs of their students. Frequent assessments of these initiatives will guarantee their effectiveness and guide future enhancements.

The long-term effects of mindfulness exercises on stress, academic achievement, and emotional health should be investigated in future studies. Examining the varying impacts of particular mindfulness practices, such body scanning, mindful movement, and meditation, may offer more profound understanding of what suits college populations the best. Additionally, adding

neurological and physiological measurements might confirm the psychological advantages noted in self-reported data.

In conclusion, educational institutions have the chance to establish nurturing settings where students can flourish by including mindfulness techniques into the curriculum. A comprehensive strategy that incorporates mindfulness into academic programs,

campus culture, and mental health services can enable students to succeed academically, emotionally, and personally. Adopting mindfulness as a proactive, research-based approach is not only a positive move; it is also a crucial investment in the resilience and long-term well-being of the student body.

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