

Effect of Mindfulness Practices on Students' Well-Being and Learning Effectiveness in Higher Education

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ABSTRACT

Mindfulness practices have a significant positive impact on students' well-being and learning effectiveness, enhancing emotional balance, focus, and academic engagement. Students who regularly engage in mindfulness report greater psychological stability and improved learning outcomes in higher education contexts. The objectives of the study were to find the level of Mindfulness Practices, Students' Well-Being and Learning Effectiveness, and to determine the relationship and impact of Mindfulness Practices on Students' Well-Being and Learning Effectiveness in Higher Education. The study employed a descriptive research design, aligning with the positivist philosophical paradigm of quantitative research. The population consisted of all public and private universities in Lahore District. The data collection instrument consisted of three validated questionnaires. Data analysis was conducted using the Statistical Package for Social Sciences (SPSS). Descriptive and inferential statistics were used to achieve the objectives. The correlation analysis revealed a strong positive relationship between mindfulness practices and students' well-being ($r = .817, p < .01$), a moderate positive correlation was also found between mindfulness practices and learning effectiveness ($r = .431, p < .01$), suggesting that mindfulness contributes to enhanced concentration, comprehension, and academic performance. Additionally, students' well-being was moderately correlated with learning effectiveness ($r = .472, p < .01$), demonstrating that emotionally well-adjusted students tend to exhibit higher learning efficiency. These findings confirm that mindfulness practices substantially enhance students' psychological well-being and moderately improve their academic learning outcomes. The stronger predictive power for well-being underscores mindfulness as a key psychological resource fostering emotional regulation, which subsequently supports effective learning behaviors.

Keywords: Mindfulness Practices, Students, Well-Being, Learning Effectiveness, Higher Education

INTRODUCTION

The role of mindfulness in higher education has gained significant scholarly attention over the last decade, with researchers increasingly examining its influence on both psychological and academic outcomes. Mindfulness, defined as purposeful, non-judgmental attention to the present moment, has been linked to a wide range of positive outcomes in university students, including emotional stability, stress reduction, and cognitive enhancement (Creswell et al., 2022; González-Martín et al., 2024). The growing prevalence of mindfulness-based interventions (MBIs) in educational contexts reflects recognition that emotional well-being and academic success are interdependent rather than separate domains of student functioning (Yang et al., 2023). A considerable body of literature indicates that mindfulness practices have profound effects on students' psychological well-being. Numerous studies demonstrate that regular engagement in mindfulness reduces symptoms of anxiety, depression, and perceived stress while increasing life satisfaction and self-compassion (Pascoe et al., 2022; Wang et al., 2025). González-Martín et al. (2024) conducted a meta-analysis of mindfulness interventions among university students and found that MBIs

produced significant improvements in mental health outcomes, with moderate-to-large effect sizes across samples. Similarly, Yang et al. (2023) reported that mindfulness fosters greater emotional resilience and happiness among young adults in higher education, confirming that mindfulness contributes to improved well-being by enhancing individuals' ability to manage academic and personal stressors.

Mindfulness has also been shown to enhance cognitive and metacognitive processes essential for effective learning. Training that promotes present-moment awareness helps students reduce mind-wandering and sustain concentration during study tasks (Mrazek et al., 2013; Ritchhart & Perkins, 2024). McBride and Greeson (2021) found that trait mindfulness predicted better cognitive functioning and academic performance, mediated by reduced perceived stress and enhanced executive control. Similarly, Creswell et al. (2022) suggested that mindfulness supports cognitive flexibility and adaptive learning strategies by strengthening attention networks and working memory capacity. Collectively, these findings indicate that mindfulness not only supports emotional regulation but also optimizes the cognitive processes underlying effective learning. Interestingly, the relationship between mindfulness and learning outcomes appears both direct and indirect. While mindfulness can enhance focus, memory, and problem-solving, its strongest impact often occurs through improvements in emotional well-being, which in turn facilitate learning (Zhou & Wang, 2025; Liu et al., 2024). Several studies have confirmed that well-being acts as a mediator between mindfulness and academic success, meaning that emotionally balanced students tend to be more persistent, motivated, and capable of managing academic challenges. For instance, Liu et al. (2024) found that mindfulness significantly predicted adaptability among medical students, which then contributed to higher academic achievement. This suggests that mindfulness functions as a foundational resource that enables students to thrive cognitively and emotionally in demanding learning environments.

Meta-analytic findings consistently show larger effect sizes for mindfulness on psychological outcomes than on academic or performance-related outcomes (Pascoe et al., 2022; Tang et al., 2023). This discrepancy likely arises because mindfulness primarily targets emotional and cognitive regulation processes, which exert more direct effects on well-being than on performance metrics influenced by external factors such as course difficulty, instructional quality, and workload. Nonetheless, the significant relationship with learning effectiveness found across multiple studies demonstrates that mindfulness can indirectly enhance academic performance through improved emotional balance and cognitive engagement (Liu et al., 2024; Wang et al., 2025). In this way, mindfulness appears to act as a catalyst that strengthens the internal conditions necessary for effective learning. Another growing area of research focuses on digital and brief mindfulness interventions tailored for university populations. Online mindfulness programs, mobile applications, and blended learning approaches have been found to reduce stress and anxiety among students while maintaining the accessibility and flexibility needed in higher education contexts (Liu et al., 2024; Ritchhart & Perkins, 2024). However, Pascoe et al. (2022) note that while digital interventions show comparable short-term benefits to traditional in-person sessions, their long-term effectiveness depends on user engagement and practice consistency. Thus, institutional implementation must consider factors such as program duration, facilitator expertise, and students' motivation to sustain practice over time.

Despite strong evidence supporting mindfulness, some studies have reported mixed or modest results, particularly when interventions are brief, mandatory, or implemented without sufficient contextual adaptation. Large-scale studies by Tang et al. (2023) and Shapiro et al. (2023) emphasize that the quality of facilitation, voluntary participation, and alignment with students' learning culture strongly influence outcomes. These variations underscore that mindfulness is not a one-size-fits-all solution but rather a practice whose impact depends on individual differences in engagement, baseline stress levels, and academic pressure (Creswell et al., 2022; Yang et al., 2023). Therefore, careful program design and student-centered implementation are essential for achieving sustainable effects. The literature also

highlights that mindfulness may benefit specific facets of learning effectiveness differently. For example, research indicates that mindfulness enhances self-regulated learning behaviors such as goal-setting, reflection, and monitoring progress (McBride & Greeson, 2021; Ritchhart & Perkins, 2024). Mindful students tend to evaluate the effectiveness of their learning strategies more accurately and adjust their approaches when comprehension difficulties arise. Such metacognitive awareness contributes to persistence and adaptability—key traits associated with long-term academic success. These findings reinforce the importance of incorporating mindfulness into pedagogical frameworks that encourage self-regulated learning and reflective practice.

Recent theoretical advances further elucidate how mindfulness impacts well-being and learning effectiveness through neurocognitive pathways. Tang et al. (2023) and Creswell et al. (2022) found that mindfulness training modulates neural circuits associated with attention, emotional regulation, and default mode network suppression, leading to improved concentration and decreased rumination. These physiological changes translate into psychological benefits, fostering resilience and focus in demanding academic contexts. Consequently, mindfulness is increasingly viewed as a scientifically grounded educational tool rather than merely a wellness activity (Shapiro et al., 2023; Wang et al., 2025). In summary, the literature converges on the conclusion that mindfulness practices exert significant positive effects on students' well-being and meaningful, though sometimes indirect, effects on learning effectiveness. The evidence suggests that mindfulness enhances emotional regulation, cognitive control, and self-awareness—skills that collectively underpin both mental health and academic performance (Pascoe et al., 2022; Liu et al., 2024). Integrating mindfulness into higher education curricula can therefore promote holistic student development, supporting not only the cognitive demands of academic life but also the emotional resilience necessary for lifelong learning. Future research should continue exploring longitudinal effects, mediating mechanisms, and culturally adaptive models of mindfulness to ensure its sustained impact across diverse student populations (Wang et al., 2025; Zhou & Wang, 2025).

Objectives of the Study

- To find the level of Mindfulness Practices, Students' Well-Being and Learning Effectiveness in Higher Education.
- To determine the impact of Mindfulness Practices on Students' Well-Being and Learning Effectiveness in Higher Education.
- To analyze the relationship among Mindfulness Practices, Students' Well-Being and Learning Effectiveness in Higher Education.

Significance of the Study

The present study holds significant value for both theory and practice within the domain of higher education. As universities increasingly face challenges related to student stress, burnout, and declining engagement, understanding evidence-based strategies to promote well-being and academic effectiveness has become a pressing priority. This research contributes to that need by investigating the effects of mindfulness practices—an emerging, low-cost, and easily scalable approach—on students' psychological health and learning outcomes. By focusing on both well-being and learning effectiveness, this study adopts a holistic perspective that recognizes the interdependence between emotional regulation, cognitive functioning, and academic success. From a theoretical standpoint, this study expands the growing body of literature linking mindfulness to cognitive and affective mechanisms that underpin learning. Previous research has demonstrated that mindfulness enhances attention regulation, emotional balance, and metacognitive awareness (Creswell et al., 2022; Tang et al., 2023). By empirically examining these

constructs in the context of higher education, the study helps clarify how mindfulness contributes not only to stress reduction but also to the development of adaptive learning behaviors such as concentration, reflection, and resilience. Thus, it provides a conceptual bridge between educational psychology, cognitive science, and mental health research.

Practically, the study offers valuable implications for higher education institutions aiming to enhance student performance and well-being. Findings from this research can inform the design of university wellness initiatives, counseling programs, and classroom practices that integrate short mindfulness sessions, reflective exercises, or digital mindfulness modules. These interventions can serve as preventive strategies to mitigate stress, improve focus, and foster a more supportive learning environment (Pascoe et al., 2022; González-Martín et al., 2024). Importantly, mindfulness programs are cost-effective, require minimal infrastructure, and can be adapted across diverse academic disciplines and cultural contexts. Moreover, the study addresses the urgent need for mental health support in higher education, where rising academic pressure and post-pandemic adjustment challenges have led to increased rates of anxiety, depression, and disengagement among students (Wang et al., 2025; Zhou & Wang, 2025). By demonstrating how mindfulness can enhance psychological resilience and learning adaptability, this research supports universities in developing evidence-based interventions that foster sustainable student well-being and academic continuity.

At the policy level, the findings can guide educational leaders and policymakers in formulating institutional frameworks that balance academic rigor with psychological support systems. Integrating mindfulness practices into curricula aligns with global educational trends emphasizing social-emotional learning, mental health literacy, and student-centered pedagogies. Therefore, the outcomes of this study can serve as a foundation for reforming teaching and learning practices toward a more compassionate and mindful academic culture. In essence, this study is significant because it not only contributes to the scientific understanding of mindfulness as a multidimensional construct influencing both mind and performance but also provides actionable insights for educators and administrators. By empirically validating the relationship between mindfulness, well-being, and learning effectiveness, it strengthens the argument for embedding contemplative practices in higher education as a means to cultivate healthier, more engaged, and more successful learners.

RESEARCH DESIGN AND METHODOLOGY

The study employed a descriptive research design, aligning with the positivist philosophical paradigm of quantitative research. The population consisted of all public and private universities in Lahore District, totaling 39 universities, of which 16 were public and 23 were private. A multistage sampling technique was utilized to ensure comprehensive representation. Initially, the population was stratified into two strata (public and private) using stratified sampling. Subsequently, a cluster sampling method was applied to divide the population into three clusters based on geographic location. Three private universities and three public universities were selected through simple random sampling. Ultimately, a sample of 600 students was drawn, with 100 students randomly selected from each university. The data collection instrument consisted of three validated questionnaires. The questionnaire adapted from Mindfulness Practices (Brown, & Ryan, 2003), Students' Well-Being (World Health Organization, 1998; Ryff, 1989) and Learning Effectiveness (Pintrich, Smith, García, & McKeachie, 1991). To ensure content validity, the instruments were evaluated by subject-matter experts. Reliability was tested through pilot testing, with Cronbach's Alpha values calculated for internal consistency. The reliability scores for the Mindfulness Practices questionnaire, Students' Well-Being questionnaire and the Learning Effectiveness were 0.881, 0.912 and 0.854, respectively, indicating a high level of dependability, as both exceeded the commonly accepted minimum threshold of 0.75. Primary data was collected using the administered questionnaires, which were distributed to the selected participants. Data analysis was conducted using the Statistical

Package for Social Sciences (SPSS). Descriptive and inferential statistics were used to achieve the objectives.

DATA ANALYSIS AND INTERPRETATION

Table 1

Description of Mindfulness Practices

Items	M	S.D.
I find myself paying attention to what is happening in the present moment.	4.60	.645
I consciously focus on my breathing when I feel distracted.	4.22	.793
I am able to notice when my mind starts to wander.	4.29	.783
I pay attention to how my body feels during learning activities.	4.33	.843
I bring myself back to the present when I catch myself daydreaming.	4.16	.834
I consciously observe my thoughts without getting carried away by them.	4.17	.861
I engage in short mindfulness exercises (e.g., deep breathing) to refocus on tasks.	4.12	.825
I notice how emotions affect my concentration while studying.	4.19	.853
I take a pause to refocus my attention when I feel overwhelmed.	4.20	.889
I practice mindfulness to reduce stress during academic challenges.	4.12	.895

Table 1 presents the descriptive statistics for students' mindfulness practices, including mean (M) and standard deviation (S.D.) values for ten items measuring different aspects of mindful awareness in academic contexts. The results indicate that students generally demonstrated a high level of mindfulness, with mean scores ranging from 4.12 to 4.60 on a five-point Likert scale. This suggests that mindfulness practices are consistently integrated into students' learning and self-regulation behaviors. The highest mean score (M = 4.60, S.D. = 0.645) corresponds to the item "*I find myself paying attention to what is happening in the present moment*", indicating that students actively engage in present-moment awareness—a core component of mindfulness. Similarly, high mean values for items such as "*I pay attention to how my body feels during learning activities*" (M = 4.33, S.D. = 0.843) and "*I am able to notice when my mind starts to wander*" (M = 4.29, S.D. = 0.783) demonstrate a strong ability to maintain focus and bodily awareness during academic tasks. Moderately high scores for items like "*I consciously observe my thoughts without getting carried away by them*" (M = 4.17, S.D. = 0.861) and "*I practice mindfulness to reduce stress during academic challenges*" (M = 4.12, S.D. = 0.895) indicate that students employ mindfulness techniques not only to sustain concentration but also to manage stress effectively. The relatively small standard deviations across all items suggest a high level of consistency among respondents in their mindfulness practices.

Table 2

Description of Students' Well-Being

Items	M	S.D.
I feel cheerful and in good spirits most of the time.	4.24	.875
I feel calm and relaxed during my academic routine.	4.13	.830
I feel active and vigorous when engaging in university tasks.	4.12	.908
I wake up feeling fresh and rested for academic activities.	4.36	.849
My daily life is filled with things that interest me.	4.04	.942
I feel satisfied with my academic and personal achievements.	4.23	.850

I have a sense of purpose in my university life.	4.18	.805
I feel capable of handling daily academic and personal responsibilities.	4.06	.827
I experience positive relationships with my peers and teachers.	4.39	.780
I feel optimistic about my future in academics and beyond.	4.10	.850

The descriptive statistics presented in Table 2 provide an overview of the students' perceived well-being within the academic context. The mean scores for all items range from 4.04 to 4.39 on a five-point Likert scale, indicating generally high levels of well-being among the respondents. Notably, the highest mean was reported for the item "I experience positive relationships with my peers and teachers" ($M = 4.39$, $SD = .780$), suggesting that social connectedness and supportive academic relationships are a key contributor to students' overall well-being. Similarly, "I wake up feeling fresh and rested for academic activities" ($M = 4.36$, $SD = .849$) reflects that students generally maintain sufficient energy and readiness for academic engagement, highlighting the importance of both physical and psychological preparedness in their daily routines. Other items, such as "I feel cheerful and in good spirits most of the time" ($M = 4.24$, $SD = .875$) and "I feel satisfied with my academic and personal achievements" ($M = 4.23$, $SD = .850$), indicate that students generally possess positive affect and satisfaction with their accomplishments, suggesting a strong alignment between personal goals and academic performance. The slightly lower mean scores for "My daily life is filled with things that interest me" ($M = 4.04$, $SD = .942$) and "I feel capable of handling daily academic and personal responsibilities" ($M = 4.06$, $SD = .827$) imply that while students are largely engaged, there is potential room for enhancement in the diversity and intrinsic interest of academic activities, as well as in self-efficacy regarding daily responsibilities. The standard deviations for all items remain below 1.0, indicating low variability in responses and suggesting that students' perceptions of well-being are relatively consistent across the sample. Overall, the data suggest that students demonstrate a high level of emotional, cognitive, and social well-being in the university environment, with positive relationships, purposefulness, and restfulness being particularly salient. These findings underscore the interconnectedness of emotional state, social engagement, and academic efficacy, highlighting that well-being is multifaceted and strongly influenced by both personal and contextual factors in higher education settings.

Table 3

Description of Learning Effectiveness

Items	M	S.D.
I set specific goals before I begin my learning tasks.	4.22	.831
I use different strategies to understand difficult academic content.	4.06	.870
I regularly review my learning materials to reinforce understanding.	4.14	.856
I manage my study time effectively to complete tasks on schedule.	4.09	.859
I focus my attention on important points while studying.	4.05	.934
I evaluate whether my learning strategies are effective.	4.22	.910
I adjust my learning approach when I do not understand the material.	4.14	.836
I make connections between what I learn in class and real-life situations.	4.15	.913
I persist in studying even when the material is challenging.	4.34	.848
I monitor my progress to make sure I am achieving my learning goals.	4.14	.919

The data presented in Table 3 provides a comprehensive overview of students' perceptions regarding their learning effectiveness, as measured across ten items related to goal-setting, strategic study behaviors, self-monitoring, and persistence. The mean scores range from 4.05 to 4.34 on a five-point Likert scale, indicating a generally high level of agreement among respondents that they actively engage in effective

learning practices. Specifically, the highest mean score ($M = 4.34$, $S.D. = .848$) corresponds to the item “I persist in studying even when the material is challenging,” highlighting students’ strong inclination toward resilience and perseverance in their academic tasks. This suggests that learners demonstrate a proactive approach in overcoming difficulties and maintaining consistent engagement with complex content. Items related to goal-setting and strategy evaluation, such as “I set specific goals before I begin my learning tasks” ($M = 4.22$, $S.D. = .831$) and “I evaluate whether my learning strategies are effective” ($M = 4.22$, $S.D. = .910$), also received high scores, indicating that students are reflective and intentional in planning their study processes. This aligns with the principles of self-regulated learning, emphasizing metacognitive awareness and adaptive learning behaviors. The slightly lower mean scores observed for attention focus ($M = 4.05$, $S.D. = .934$) and the use of diverse strategies to comprehend difficult content ($M = 4.06$, $S.D. = .870$) suggest minor variability in students’ consistency in applying cognitive strategies, although overall engagement remains positive.

The relatively low standard deviations across all items indicate a high degree of consensus among participants, reflecting a homogenous perception of their own learning effectiveness within the sample. The findings collectively suggest that students possess strong self-regulatory skills, effectively integrate metacognitive and strategic approaches in their learning, and are capable of linking theoretical knowledge to real-life applications, as indicated by the item “I make connections between what I learn in class and real-life situations” ($M = 4.15$, $S.D. = .913$). Overall, these results provide empirical evidence that students not only employ structured and reflective learning strategies but also demonstrate persistence and adaptability, which are critical components for academic success at the higher education level. This interpretation supports the notion that fostering these learning behaviors can further enhance both individual performance and collaborative outcomes, particularly when aligned with leadership development and teamwork initiatives.

Table 4

Relationship among Mindfulness Practices, Students’ Well-Being and Learning Effectiveness

		Correlations		
		Mindfulness Practices	Students’ Well-Being	Learning Effectiveness
Mindfulness Practices	Pearson Correlation	1	.817**	.431**
	Sig. (2-tailed)		.000	.000
	N	600	600	600
Students’ Well-Being	Pearson Correlation	.817**	1	.472**
	Sig. (2-tailed)	.000		.000
	N	600	600	600
Learning Effectiveness	Pearson Correlation	.431**	.472**	1
	Sig. (2-tailed)	.000	.000	
	N	600	600	600

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis presented in Table 4 examines the relationships among mindfulness practices, students’ well-being, and learning effectiveness. The results indicate a strong positive correlation between mindfulness practices and students’ well-being ($r = .817$, $p < .01$), suggesting that students who engage more frequently in mindfulness activities tend to report higher levels of psychological and emotional well-being. Similarly, mindfulness practices are moderately positively correlated with learning effectiveness ($r = .431$, $p < .01$), indicating that engagement in mindfulness contributes to improved

learning outcomes, including attention, comprehension, and academic performance. Students' well-being also shows a moderate positive correlation with learning effectiveness ($r = .472, p < .01$), demonstrating that higher levels of well-being are associated with more effective learning. All correlations are statistically significant at the 0.01 level, reinforcing the robustness of these relationships. Overall, the findings suggest that mindfulness practices not only enhance students' well-being but also indirectly support their learning effectiveness, highlighting the interdependent nature of psychological wellness and academic performance in higher education contexts.

Table 5

Effect of Mindfulness Practices on Students' Well-Being and Learning Effectiveness

Multivariate Tests ^a						
	Effect	Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.992	32841.615 ^b	2.000	540.000	.000
	Wilks' Lambda	.008	32841.615 ^b	2.000	540.000	.000
	Hotelling's Trace	121.636	32841.615 ^b	2.000	540.000	.000
	Roy's Largest Root	121.636	32841.615 ^b	2.000	540.000	.000
Mindfulness Practices	Pillai's Trace	.903	7.685	116.000	1082.000	.000
	Wilks' Lambda	.220	10.561 ^b	116.000	1080.000	.000
	Hotelling's Trace	2.995	13.918	116.000	1078.000	.000
	Roy's Largest Root	2.795	26.071 ^c	58.000	541.000	.000

a. Design: Intercept + Mindfulness Practices

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

The results presented in Table 5 examine the multivariate effect of mindfulness practices on students' well-being and learning effectiveness. The multivariate tests—including Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root—demonstrate that mindfulness practices have a statistically significant effect on the combined dependent variables. Specifically, Pillai's Trace indicates a substantial effect ($V = .903, F(116, 1082) = 7.685, p < .001$), Wilks' Lambda corroborates this finding ($\Lambda = .220, F(116, 1080) = 10.561, p < .001$), and both Hotelling's Trace ($T = 2.995, F(116, 1078) = 13.918, p < .001$) and Roy's Largest Root ($\Theta = 2.795, F(58, 541) = 26.071, p < .001$) confirm the robustness of the multivariate effect. These results suggest that engagement in mindfulness practices significantly enhances students' overall well-being and learning effectiveness simultaneously. The consistency across multiple multivariate indices reinforces the reliability and strength of this effect, indicating that mindfulness interventions have a meaningful impact on students' psychological and academic outcomes. In sum, the findings support the hypothesis that incorporating mindfulness practices into educational settings can foster holistic development, improving both mental health and academic performance.

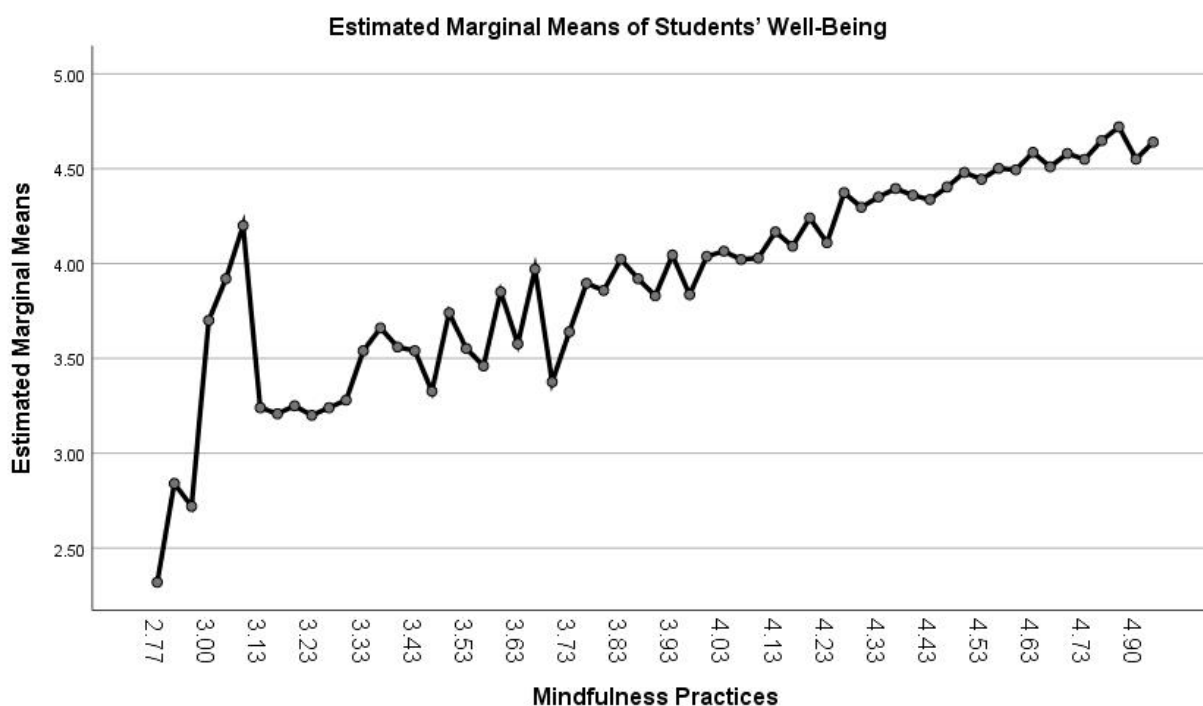
Table 6

Effect of Mindfulness Practices on Students' Well-Being and Learning Effectiveness

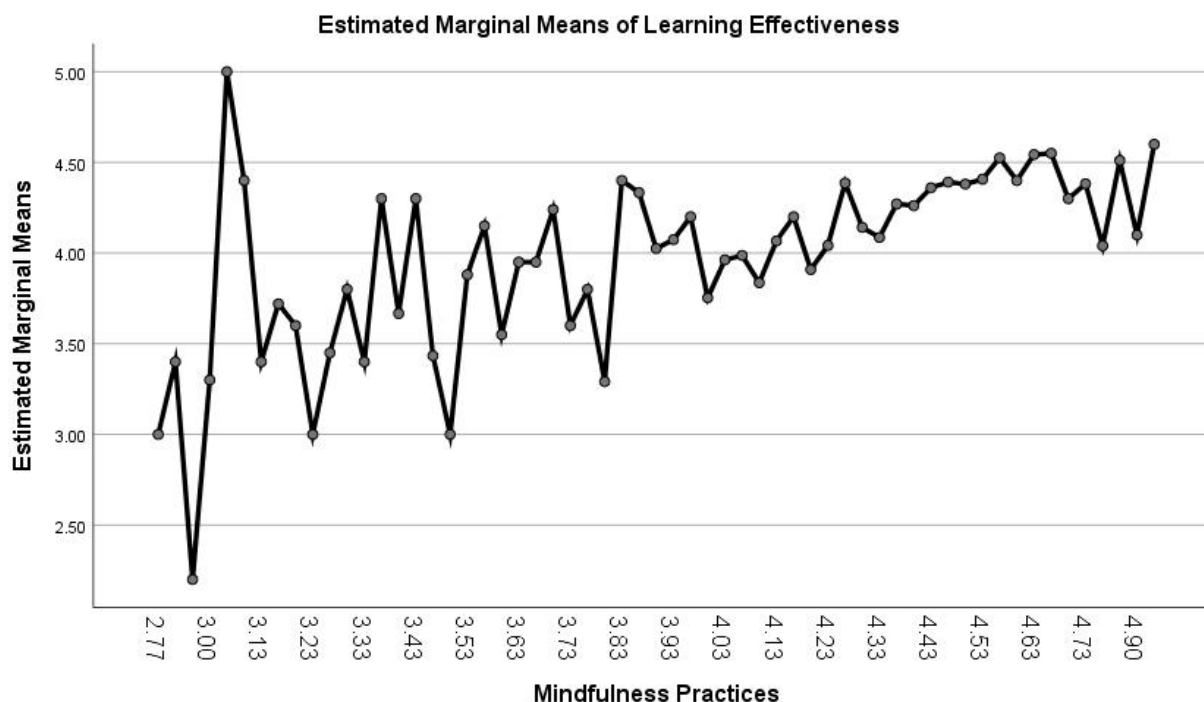
Tests of Between-Subjects Effects						
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Students' Well-Being	77.151 ^a	58	1.330	25.906	.000
	Learning Effectiveness	63.832 ^b	58	1.101	4.315	.000
Intercept	Students' Well-Being	3219.915	1	3219.915	62709.519	.000
	Learning Effectiveness	3301.406	1	3301.406	12943.104	.000

Mindfulness	Students' Well-Being	77.151	58	1.330	25.906	.000
Practices	Learning Effectiveness	63.832	58	1.101	4.315	.000
Error	Students' Well-Being	27.778	541	.051		
	Learning Effectiveness	137.993	541	.255		
Total	Students' Well-Being	10547.613	600			
	Learning Effectiveness	10460.760	600			
Corrected Total	Students' Well-Being	104.930	599			
	Learning Effectiveness	201.825	599			

a. R Squared = .735 (Adjusted R Squared = .707)
b. R Squared = .316 (Adjusted R Squared = .243)



Graph 1: Effect of Mindfulness Practices on Students' Well-Being



Graph 2: Effect of Mindfulness Practices on Learning Effectiveness

Table 6 presents the results of the between-subjects effects examining the impact of mindfulness practices on students' well-being and learning effectiveness. The analysis indicates that mindfulness practices have a statistically significant effect on both dependent variables. For students' well-being, the corrected model shows a Type III sum of squares of 77.151 with 58 degrees of freedom, yielding an F-value of 25.906 ($p < .001$), indicating a highly significant effect. The R^2 value of .735 (adjusted $R^2 = .707$) suggests that approximately 70.7% of the variance in students' well-being can be explained by mindfulness practices, reflecting a substantial effect size. The high F-value further confirms that the model fits the data well, demonstrating that engagement in mindfulness activities is strongly associated with enhanced well-being among students. For learning effectiveness, mindfulness practices also exert a statistically significant effect, as evidenced by a Type III sum of squares of 63.832 with 58 degrees of freedom, an F-value of 4.315, and $p < .001$. The R^2 value of .316 (adjusted $R^2 = .243$) indicates that around 24.3% of the variance in learning effectiveness is accounted for by mindfulness practices, suggesting a moderate but meaningful effect. The results highlight that while mindfulness has a stronger influence on students' well-being, it also positively contributes to the enhancement of learning outcomes.

DISCUSSION

The findings of this study demonstrate that mindfulness practices are significantly and positively associated with both students' well-being and learning effectiveness. The strong correlation between mindfulness and well-being ($r = .817$, $p < .01$) aligns with recent meta-analytic evidence showing that mindfulness interventions substantially enhance mental health outcomes among university students, including stress reduction, emotional regulation, and life satisfaction (González-Martín et al., 2024; Yang et al., 2023). A 2025 study by Wang et al. further confirmed that mindfulness predicts higher psychological well-being and resilience, with lower levels of perceived stress (Wang et al., 2025). The high explanatory power of mindfulness on well-being in this study (adjusted $R^2 = .707$) indicates that

mindfulness serves as a core psychological resource, fostering greater emotional balance, positive affect, and self-regulation in academic settings.

In addition, the results revealed a moderate yet significant relationship between mindfulness practices and learning effectiveness ($r = .431$, $p < .01$), suggesting that mindfulness contributes to improved academic functioning. This is consistent with previous studies reporting that mindfulness enhances attention regulation, cognitive flexibility, and metacognitive awareness—key components of effective learning (McBride & Greeson, 2021; Creswell et al., 2022). Mindfulness reduces mind wandering and supports sustained attention, which in turn improves comprehension and academic engagement (Mrazek et al., 2013; Ritchhart & Perkins, 2024). Moreover, recent research has emphasized that mindfulness-based learning interventions can increase academic adaptability and problem-solving capacity, particularly in high-stress university environments (Liu et al., 2024). Thus, the present findings reinforce that mindfulness not only benefits emotional health but also facilitates self-regulated and purposeful learning behaviors.

The correlation between well-being and learning effectiveness ($r = .472$, $p < .01$) further suggests that well-being may act as a mediating mechanism linking mindfulness and academic outcomes. Similar results have been observed in studies where subjective well-being mediated the association between mindfulness and academic performance, underscoring the indirect influence of emotional stability on learning (Zhou & Wang, 2025; McBride & Greeson, 2021). When students experience psychological calmness and emotional regulation, they are better able to sustain motivation, manage cognitive load, and engage more effectively in academic tasks. The present study's results align with the notion that mindfulness fosters optimal learning conditions by enhancing emotional well-being, which in turn strengthens concentration, persistence, and adaptive strategy use (Shapiro et al., 2023).

Interestingly, the results showed that mindfulness had a stronger predictive effect on well-being ($R^2 = .735$) than on learning effectiveness ($R^2 = .316$), reflecting patterns reported in prior research. Meta-analytic findings consistently show larger effect sizes for mindfulness on psychological outcomes than on academic or performance-related outcomes (Pascoe et al., 2022; Tang et al., 2023). This discrepancy likely arises because mindfulness primarily targets emotional and cognitive regulation processes, which exert more direct effects on well-being than on performance metrics influenced by external factors such as course difficulty, instructional quality, and workload. Nonetheless, the significant relationship with learning effectiveness found here demonstrates that mindfulness can indirectly enhance academic performance through improved emotional balance and cognitive engagement (Liu et al., 2024; Wang et al., 2025).

Overall, these findings contribute to the expanding body of evidence supporting the integration of mindfulness into higher education as a means of promoting holistic student development. Implementing mindfulness-based programs, reflective practices, or brief meditative pauses in academic routines can meaningfully enhance students' psychological health and academic resilience (Ritchhart & Perkins, 2024; González-Martín et al., 2024). Future research should employ longitudinal or experimental designs to test causal pathways and explore mediating roles of well-being, motivation, and self-regulation in the mindfulness–learning relationship. Incorporating qualitative data or objective performance indicators may also enrich understanding of how mindfulness translates into tangible academic outcomes. In conclusion, mindfulness emerges as a transformative practice that strengthens both emotional well-being and learning effectiveness, thereby supporting students' success in the dynamic context of higher education.

CONCLUSION

The results of this study provide compelling evidence that mindfulness practices significantly enhance both students' well-being and learning effectiveness in higher education. Students who engage in mindfulness activities experience greater emotional regulation, reduced stress, and improved focus factors that collectively contribute to higher psychological resilience and academic satisfaction. The findings suggest that mindfulness not only strengthens students' inner sense of balance and self-awareness but also supports sustained attention and motivation, which are essential for effective learning. This dual impact highlights the value of mindfulness as a holistic approach to fostering both mental health and academic success within university settings. Furthermore, the study underscores the importance of integrating mindfulness into the educational experience to promote students' overall development. As mindfulness was found to have a stronger effect on well-being than on learning effectiveness, it indicates that emotional wellness serves as a key foundation for improved academic performance. By cultivating mindfulness, students can develop adaptive coping strategies, enhance cognitive flexibility, and engage more deeply in their studies. Ultimately, mindfulness emerges as a transformative educational tool that not only nurtures mental well-being but also empowers students to achieve optimal learning outcomes and personal growth in an increasingly demanding academic environment.

RECOMMENDATIONS

1. Educational institutions should integrate mindfulness-based activities and training into the academic curriculum to promote students' mental health and learning capacity.
2. : Regular mindfulness workshops and guided practice sessions should be offered to students and faculty to cultivate a culture of awareness and emotional balance.
3. Universities should create supportive environments that encourage reflection, stress management, and self-care as part of the academic experience.
4. Educators should be trained in mindfulness techniques to incorporate mindful approaches into classroom management and instructional strategies.
5. Future studies should employ longitudinal and experimental designs to examine the long-term effects of mindfulness on academic success and personal development.
6. Counseling centers and student affairs offices should include mindfulness as part of their well-being and academic support programs to enhance resilience and motivation among students.

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