

Effect of Mindfulness Practices on Academic Stress of University Students: Mediating Role of Emotional Resilience

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Abstract

Most pressing challenge faced by students during academic life is stress, which may be reduced by using mindfulness practices and emotional resilience. Present study was descriptive in nature, and survey design was opted to explore about the prevailing situation. All undergraduate students at university of Sargodha constituted the population, while multistage random sampling technique was used to select the sample. A sample of 400 students enrolled in 6th and 8th semester was selected. Questionnaire was used to collect data about mindfulness practices, academic stress and emotional resilience. Pilot testing was done to ensure reliability of the tool. Findings shows that mindfulness practices have impact on academic stress; whereas there is no mediating role of academic resilience. Hence it is recommended that universities may foster practices of mindfulness to reduce academic stress of the students.

Key Words

Mindfulness, Academic Stress, Emotional Resilience

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Introduction

University students face many personal, social and academic pressures, and academic stress is one of them. Academic stress is a global challenge for students, which is caused by excessive academic demands. When academic demands go beyond coping abilities of the students causes anxiety, emotional strain and affects well-being of the students (Safarzaie et al., 2017). High demands from family, teachers, society, and labour market pressurised students to keep struggling for better academic performance while managing financial burdens, interpersonal challenges and age group transitions. Unmanaged academic stress leads to lack of motivation and concentration, health issues, and poor academic performance (Pascoe et al., 2020; Yan et al., 2018). Academic stress is a systemic issue, and there is a need to create a conducive learning environment which boosts overall well-being and academic performance of the students.

Mindfulness is an ancient practice rooted in Buddhist traditions, which serves as a game-changer to deal with pressure and stress, and is now being adopted in latest educational settings. It is a powerful practice of purposeful awareness of present experiences without being judgmental (Kabat-Zinn, 1994; Brown & Ryan, 2003). Mindfulness

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helps in self-regulation, which helps to respond to every stressful situation in a sophisticated way instead of getting impulsive; hence, mindfulness is very helpful for emotional balance and cognitive clarity (Bishop et al., [2004](#)). Mindfulness practices are being adapted by higher education institutions for classrooms, counselling services and even for cocurricular activities. Empirical evidence reflects that mindfulness practices significantly reduce level of anxiety, emotional mismanagement and stress (Galante et al., [2021](#)). Multiple cross-cultural research from Europe, Malaysia, Indonesia and South Africa proved mindfulness as a universal phenomenon to enhance emotional stability and ultimately enhance performance by adopting effective coping strategies (Koppenborg et al., [2024](#); Ramli et al., [2018](#)). Hence, mindfulness practices help in developing a positive outlook, which is key to successful life by all means.

Emotional resilience is a bridging mechanism in aligning mindfulness practices and academic stress. Emotional resilience is the capability to work under pressure by facing challenges through emotional regulation (Bajaj et al., [2022](#)). Significant research indicates that emotional resilience regulates mental health and reduces academic stress; hence, it serves as a mediator to minimize the effect of stress by strengthening mindfulness. Mindfulness stimulates resilient response to academic challenges through acceptance, awareness, and emotional stability (Sujadi, [2022](#)).

Despite having diverse research on mindful practices, limited research is available in the Pakistani context to understand mindfulness practices on the academic stress of university students while considering emotional resilience as a mediating component. Hence, keeping in view academic pressure and competitive environment at university level it's crucial to explore the prevailing mindfulness practices and their impact on the academic stress of university students, while taking emotional resilience as mediator. By exploring the interplay of mindfulness practices, academic stress, and emotional resilience will provide base to develop targeted interventions for Pakistani students to deal with academic stress by exploiting mindfulness practices and emotional resilience (Bhatti et al., [2018](#)). Hence current study effect of Mindfulness practices on academic stress of university students: mediating role of emotional resilience is a blend of theoretical and empirical frameworks to provide empirical evidence for the well-being of students.

Literature Review

Mindfulness is referred to as complete engagement in the present moment without distraction or judgement; moreover, it regulates emotional stability, cognitive clarity and self-awareness (Kabat-Zinn, [1990](#)). Paying self-regulated attention to ongoing experiences and exhibiting traits of curiosity, openness and acceptance (Bishop et al., [2004](#)). Mindfulness is a tendency and trait which can be strengthened through practice (Brown & Ryan, [2003](#)). Both formal and informal practices, such as meditation, body scanning and breathing, can help to reduce stress and improve focus on intended activities. Mindfulness has a deep-rooted history and is equally adopted in clinical and academic perspectives to promote well-being of individuals in general and students in particular. Mindfulness practices result in dropping anxiety, stress and emotional dysfunction; hence, it improves overall mental health through acceptance and awareness (Kabat-Zinn, [1990](#)).

Mindfulness practices are being used as a tool by universities for improving concentration, constructive emotional response, self-regulation, memory, and well-being for better academic performance. OECD has recognized mindfulness as a core component of social-emotional learning framework for students' development, because these practices improve interpersonal relationships, academic engagements, and reduce level of stress among students. Mindfulness keeps students engaged in social and academic life by regulating thoughts and emotions (Pratscher et al., [2019](#)).

Psychological distress due to high academic stressors that exceed student's abilities is called academic stress, such as deadlines, imbalance in academic and personal responsibilities, examinations, and heavy workload

(Safarzaie et al., [2017](#)). If these stressors are not handled properly, this leads towards depression, anxiety, academic withdrawal and even academic burnout (Pascoe et al., [2020](#)). Students feel academic pressure around the globe, and international students face more challenges in adapting to different languages and cultures (Koppenborg et al., [2024](#); Ramli et al., [2018](#)). Multiple researched have shown that mindfulness and stress have a negative relationship that with high levels of mindfulness practices reducing levels of stress among students, showing fewer negative thoughts and effective coping strategies to deal with the challenges (Weinstein et al., [2009](#)). Mindfulness practice stimulates emotional clarity, which helps to develop rational thinking to face academic challenges.

The effectiveness of mindfulness practices is proven by many studies, and it can reduce psychological distress for almost one year after an 8-week program (Galante et al., [2021](#)). While research conducted in Malaysia and Indonesia highlighted that mindfulness practices improve self-regulation and decrease stress (Ramli et al., [2018](#)). To improve concentration and reduce academic stress, mindfulness techniques are a powerful tool, a preventative and corrective psychological source to deal with stress.

Bouncing back and adapting to tough situations is called resilience (Bajaj et al., [2022](#)). Resilience regulates the emotions of the students, which increases their focus and well-being, and they take challenges as opportunities in academic life. Many studies have explicated that resilience serves as a mediator between mindfulness and other psychological aspects, because mindfulness regulates emotions, increases the level of acceptance and cognitive flexibility, which ultimately makes students more resilient (Sujadi, [2022](#)). Resilience reduces perceived stress, and academic stress is proven by many cross-cultural studies (Bajaj et al., [2022](#)). The mediating role of emotional resilience is rooted in conservation of resource theory and self-determination theory, which means emotional resilience works as a buffer zone to reduce stress and increase well-being of the students. Emotional resilience paves the way to strengthen the academic and personal functioning of the students, while mindfulness reinforces psychological resources. Globally, it's proven that mindfulness practices decrease academic stress, and emotional resilience is a key factor in this process, hence there is a need to explore this phenomenon in the Pakistani context (Bajaj et al., [2022](#); Sujadi, [2022](#)). So, academic practices for the students at universities can be transformed for better learning.

Research Objectives

1. To access relationship among mindfulness practices, emotional resilience and academic stress.
2. To measure the mediation effect of emotional resilience in the relationship between mindfulness practices and academic stress of university students.

Methodology

Research Design

This research study was quantitative, and a survey design was adopted to collect data. Quantitative research is a type of research that uses numerical and statistical data to investigate social phenomena scientifically.

Population and sample

All undergraduate students enrolled at the University of Sargodha were considered the population of this study. A multistage sample technique was used to collect data. At first stage, out of six different faculties are serving at University of Sargodha, 50% were selected randomly for data collection purposes. At the second stage, 50% of the departments from each selected faculty were selected randomly. At third stage, students of the 6th and 8th semesters were selected as a sample, which made a total sample size of 400 (n=400).

Instrumentation

Questionnaire was developed having four parts, consisting of demographic information and statements about the phenomenon under investigation. Mindfulness practices part had 15 items which were adapted from the Mindfulness in teaching scale (MTS) by Frank et al. The third part was about academic stress contained 20 statements. Fourth, part consisted of 20 items about emotional resilience. Data were collected from 50 undergraduate students at Institute of Education for pilot testing, which was not part of the actual sample. Data from the pilot testing were analyzed, and Cronbach's Alpha value for academic stress was 0.822 and 0.840 for emotional resilience.

Results

Table 1

Pearson Correlation Coefficients among Study Variables

Variable	Mean	SD	1	2	3
1. MFPs	3.66	1.074	—		
2. AS	2.44	1.160	-.840**	—	
3. ER	3.35	0.669	.023	-.012	—

Note. N = 400.

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

A Pearson product-moment correlation analysis was conducted to examine the relationships among Mindfulness Practices, Academic Stress, and Emotional Resilience in the context of the study titled Effect of Mindfulness Practices on Academic Stress of University Students: Mediating Role of Emotional Resilience (see Table 1).

The results revealed a strong and statistically significant negative relationship between Mindfulness Practices and Academic Stress ($r = -.84, p < .01$). This finding indicates that higher engagement in mindfulness practices is associated with significantly lower levels of academic stress among university students.

However, the relationship between Mindfulness Practices and Emotional Resilience was positive but weak and not statistically significant ($r = .02, p > .05$), suggesting that mindfulness practices did not show a meaningful direct association with emotional resilience in the present sample. Similarly, Academic Stress demonstrated a very weak and non-significant negative relationship with Emotional Resilience ($r = -.01, p > .05$).

Overall, while mindfulness practices appear to play a substantial role in reducing academic stress, the non-significant relationships involving emotional resilience suggest that its mediating effect may require further examination through advanced analyses such as mediation or structural equation modelling.

Table 2

Direct, Indirect, and Total Effects of Mindfulness Practices on Academic Stress as Mediated by Emotional Resilience

Paths	Effect	SE	t	95% CI (LL, UL)	p
Direct Effects (c')					
MFPs → ER	0.014	0.031	0.46	[-0.047, 0.076]	.646
MFPs → AS (c')	-0.907	0.030	-30.79	[-0.965, -0.849]	.000
ER → AS	0.012	0.047	0.26	[-0.081, 0.105]	.797
Indirect Effects (ab)					
MFPs → ER → AS	0.0002	0.0015	—	[-0.0030, 0.0037]	NS
Total Effect (c)					
MFPs → AS	-0.907	0.029	-30.82	[-0.964, -0.849]	.000

Note. N = 400. MFPs = Mindfulness Practices; ER = Emotional Resilience; AS = Academic Stress. Bootstrap confidence intervals are based on 5,000 resamples. NS = Not significant.

A mediation analysis using PROCESS Macro Model 4 (Hayes, 2022) was conducted to examine whether Emotional Resilience mediates the relationship between Mindfulness Practices and Academic Stress among university students (see Table 2).

The results showed that Mindfulness Practices had a significant negative direct effect on Academic Stress ($B = -0.91$, $SE = 0.03$, $p < .001$), indicating that increased mindfulness practices are associated with lower levels of academic stress. However, Mindfulness Practices did not significantly predict Emotional Resilience ($B = 0.01$, $p > .05$), nor did Emotional Resilience significantly predict Academic Stress ($B = 0.01$, $p > .05$).

Furthermore, the indirect effect of Mindfulness Practices on Academic Stress through Emotional Resilience was not significant, as the bootstrap confidence interval included zero (BootCI $[-0.003, 0.004]$). This indicates that Emotional Resilience does not mediate the relationship between mindfulness practices and academic stress.

Overall, the findings suggest that Mindfulness Practices exert a strong direct effect on reducing academic stress, but this relationship is not explained through emotional resilience in the present model.

Discussion and Conclusion

Findings of the study highlighted that mindfulness practices help students to reduce academic stress which impact their performance. Other empirical evidence also supports findings of this study that stress management strategies used by students help to regulate emotions, and develop emotional resilience (Johnson et al., 2023 & Keng et al., 2011). Many studies conducted were in support that mindfulness practices work as booster for resilience (Bajaj & Pande, 2016; Chamberlain et al., 2016). Moreover, it was reported that resilience and mindfulness are directly proportional and work to reduce psychological stress (Pidgeon, 2017). Another research explored that mindfulness practices and resilience have significant positive correlation (Freligh & Debb, 2019). Moreover, it was found that nonreactive and nonjudgemental mindfulness along with self-compassion increase level of resilience in students. Hence, developing and practicing mindfulness practice and self-compassion enable students to face all challenges and diversity (McArthur et al., 2017). Regression analysis highlighted that mindfulness is predictor of resilience (Pidgeon & Keye, 2013). Furthermore, behaviour is also affected by mindfulness (Donald et al., 2019). It is recommended that universities should provide training facilities of mindfulness practice to reduce stress and regulate emotions of the students.

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