

The Relative Contribution of Mindfulness to Psychological Immunity Among Students at the Hashemite University

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ABSTRACT:

This research examined the relative role of Mindfulness in psychological immunity among students at Hashemite University. A descriptive predictive design was applied. The study sample consisted of 432 male and female students from the Faculty of Educational Sciences at Hashemite University, selected via simple random sampling during the first semester of the 2025/2026 academic year. Two instruments prepared by the researchers were used, one on Mindfulness, the other on psychological immunity. The psychometric characteristics of both instruments were determined prior to their use. The results showed that the participants' total level of Mindfulness was moderate ($M = 3.64$), and their total level of psychological immunity was also moderate ($M = 3.54$). A simple linear regression analysis indicated that Mindfulness was a significant predictor of students' psychological immunity. The results indicated a significant positive relationship between the two variables ($R = 0.689$), and Mindfulness explained a majority (47.5%) of the variance in psychological immunity ($R^2 = 0.475$). Mindfulness may be an important psychological resource that enhances students' ability to cope with stress and maintain psychological balance. In light of these results, the study recommends focusing on fostering Mindfulness and psychological immunity among university students by continuously refining the educational strategy and implementing training programs, group guidance activities, and counseling interventions to enhance awareness, emotional regulation, and adaptive coping skills.

Keywords: Mindfulness, Psychological Immunity, Hashemite University Students

Introduction

There is growing research on Mindfulness, a positive psychological state that can help students adapt, regulate their emotions, and maintain good psychological health in challenging academic settings. From an academic perspective, social factors and personal/predictor pressure factors are those with which university students often come into contact, and they should be able to adjust and demonstrate resilience. In this context, Mindfulness is defined as a process of paying attention to the here and now, with openness, acceptance, and non-judgment (Jennings & Jennings, 2013; Lau et al., 2006; Hassed, 2016). Similarly, Kettler (2010) defined Mindfulness as a deliberate kind of thought, "cultivating a sense of what is going on outside as well as within us in ways that promote adaptive responses." Lauria et al (2016) and Greenwood (2014) further reiterated that one of the benefits of Mindfulness is the act of staying present with one's experience while avoiding overthinking and worrying about the past or future.

Mindfulness can play a special role in higher education settings, as it can impact focus, emotional regulation, self-understanding, and the development of beneficial stress-management strategies. Mindfulness-based techniques, such as breathing exercises, guided imagery, and attention-focusing, have been linked to reduced stress and improved adjustment among students (Zhong et al., 2024). Hanley (2020) further emphasized that Mindfulness fosters attention to the moment without judging the experience, and Davis and Hayes (2011) correlated Mindfulness with subjective wellbeing, emotional regulation, behavioral control, and self-awareness. From these benefits, Mindfulness can serve as a psychological resource to help students process information, maintain attention, and address academic and personal difficulties (Greenwood, 2014).

However, there have also been investigations into the psychological mechanisms behind Mindfulness and its connection to flexibility, openness, and adaptability. Brown and Ryan (2003) highlighted the importance of

Mindfulness as concerns psychological wellbeing, while Carson and Langer (2006) linked Mindfulness with cognitive flexibility, self-acceptance, and openness to experience. Papeleontiou-Louca (2003) determined several dimensions of Mindfulness and classified them as novelty seeking, contextual awareness, flexibility, and the ability to generate alternative perspectives. Garland et al. (2017) also suggested that Mindfulness could help people begin to reevaluate stress reactions and develop metacognitive awareness, which is essential for positive stress regulation. In recent years, it has also been demonstrated that attention-based interventions and sensory grounding can boost the mindful presence in daily life (Allen, Romate, & Rajkumar, 2021; Lantheaume et al., 2024; Berna et al., 2024).

Psychological immunity, which is related to the adaptive processes described above, is a dynamic system of psychological resources that allows individuals to withstand stress, regulate their emotions, and function effectively under stress. Masten (2001) linked adaptation to life challenges, while Oláh et al. (2010) described it as a protective system that helps adapt from the early situation-evaluation to the formation of cognitive and behavioral responses. In addition, Oláh (2021) explained that psychological immunity is not a permanent personal characteristic, but a complex structure composed of emotional, cognitive, personal, social, and environmental resources that have a positive effect on self-regulation, realistic thinking, and adjustment.

Family support, coping ability, and positive self-beliefs are among the resilience factors linked to adaptation in stressful situations (Alvord & Grados, 2005; Connor & Davidson, 2003; Gao et al., 2019; Cheraghian et al., 2023). Whilst most of this literature may be broadly conceived as about resilience, it is equally applicable to psychological immunity, as both involve resisting disruption and maintaining psychological stability. Mindfulness could offer psychological immunity from a theoretical perspective, as students would have the chance to observe struggles with less emotional reaction, better manage thoughts and

emotions, and deal with stress and difficulties with increased flexibility. Although there has been an increase in interest in Mindfulness and adaptive functioning, few studies have directly examined Mindfulness's contribution to psychological immunity, and these have examined it only in non-Western educational contexts, such as Jordan. In this context, this study seeks to examine the relative contribution of Mindfulness to psychological immunity among students at Hashemite University and to provide evidence for educational, counseling, and student-support interventions.

Problem of the study

University life is a crucial developmental stage for students, significantly shaping various aspects of their personalities. Researchers have observed that some university students lack Mindfulness. Given the scarcity of studies examining the relative contribution of Mindfulness to psychological immunity, this study aimed to determine the extent to which Mindfulness contributes to psychological immunity. In light of rapid global transformations, students face unprecedented psychological and social challenges that demand high levels of adaptability and advanced social skills (Gulmemmedova, 2025). Therefore, this study aimed to determine the relative contribution of Mindfulness to psychological immunity among students in the Faculty of Educational Sciences at Hashemite University. Consequently, this study aims to answer the following questions:

1. What is the level of Mindfulness among students at the Hashemite University?
2. What is the level of psychological immunity among students at the Hashemite University?
3. What is the relative contribution of Mindfulness to psychological immunity among students at the Hashemite University?

Importance of the study

The current study is important because it examines the effect of Mindfulness among Hashemite university students, surrounded by the complexities of social, political, and economic circumstances, on psychological

immunity, and demonstrates how the mindfulness factor compares with others. Theoretically, it fills a gap in the literature by connecting Mindfulness and psychological immunity and contributing to knowledge of students' resilience and adaptation. In practical terms, the results could support evidence-based counseling and inform educational guidance and student support in developing psychological resources and in promoting students' academic, psychological, and social wellbeing.

Terminological and procedural definitions:

Mindfulness: It is the full awareness of the stimuli with which the student interacts, stimulating their attention without judgment or preoccupation with past experiences and feelings (Johnson et al., 2017). Mindfulness is operationally defined by the score obtained by the respondent on the scale used in the current study.

Psychological immunity is defined as a set of traits and abilities, including emotional containment, adaptive coping, and self-regulation, that enable an individual to confront the negative influences, feelings, and thoughts arising from the pressures and conflicts they experience, thereby helping them withstand stress, adapt, and recover psychologically. Operationally, it is measured by the participant's score on the scale used in this study.

Study Limitations and Restrictions

The study was limited to students of Hashemite University who regularly attended classes during the first semester of the 2025/2026 academic year. The study results are determined by extracting the validity and reliability indicators of the two study instruments used by the researchers for the current study.

The Study Objectives

The study aimed to reveal the relative contribution of Mindfulness to psychological immunity among students at the Hashemite University.

Literature Review

Given its relevance for awareness, self-regulation, emotional balance, and adaptive functioning, Mindfulness has become a key construct in current psychological and educational research. It is usually thought of as a state of nonjudgmental, intentional focus on what is happening in the here and now. In the literature available, there is an understanding that Mindfulness can be a tool that allows someone to stay present with what they are feeling and experiencing and not get caught up in negative thoughts of the past and future (Lau et al., 2006; Hassed, 2016; Jennings & Jennings, 2013; Kettler, 2010; Lauria et al., 2016; Greenwood, 2014). This construct is of special importance in the university context because students are often exposed to academic, emotional, and social pressures and demands that require sustained attention, emotional regulation, and psychological flexibility.

Authors have affirmed that Mindfulness is more than just attending to what one is doing. This includes being open to experience, aware of internal and external sensations, having a flexible mind, and being able to respond flexibly rather than automatically. Previous research has shown that Mindfulness is associated with psychological wellbeing, self-acceptance, openness, and flexibility (Brown & Ryan, 2003; Carson & Langer, 2006). Pappleontiou-Louca (2003) also found central components of Mindfulness, such as 'novelty seeking', 'contextual awareness', 'flexibility', and 'generation of alternative perspectives. Mindfulness has the potential to shift how stress impacts a person: it can help individuals transition from immediate appraisals of stress to a more metacognitive, reflective awareness, which can decrease impulsive responding to stress and optimize emotion regulation (Garland et al., 2017). Even with repeated practice, there is the potential to become more aware over time, especially with the help of sensory anchors and intentional refocusing of attention (Rock, 2009; Allen et al., 2021; Lantheaume et al., 2024; Berna et al., 2024).

The importance of the concept of "mindfulness" is well-documented among university students. It

has been linked to greater focus and attention, emotions and behavior, subject wellbeing, and reduced emotional distress (Davis & Hayes, 2011; Kane, 2017; Hanley, 2020). Some recent empirical data support this perception. Sahinler et al. (2026) identified positive relations among mental health and broadly adaptive dispositional factors, such as Mindfulness, psychological flexibility, and self-compassion, among university students. Likewise, Böke et al. (2026) found that a self-directed web-based stress and coping resource (WSCR) decreased these university students' stress and unhealthy coping, and increased coping self-efficacy. Additional support from Rajan et al. (2026) showed that perceived stress was significantly reduced in mindfulness-based interventions, particularly in digitally delivered interventions for non-clinical adults. Brief practices like meditation and self-soothing touch can also alleviate momentary feelings of stress, fatigue, and loneliness in chronically stressed adults, Maier et al. (2026) also showed.

Psychological immunity is a parallel perspective that is a crucial paradigm for understanding how people function in stressful environments. It is defined as "the capacity to adapt well in the face of challenge or adversity and retain a sense of adjustment despite difficult circumstances" (Masten, 2001). Psychological immunity, analogous to immunity of the body, is the defense mechanism of an individual against the harmful effects of a stressor in the form of mobilization of resources, regulation of the body's responses, and adaptation, a kind of coping (Oláh et al., 2010). However, it is not a trait or unchanging, but rather a system in which the emotional, cognitive, personal, social, and environmental resources that shape self-regulation, positive thinking, and adaptation interact with one another (Oláh, 2021). Results from related studies indicate that resilience, family support, coping resources, and self-beliefs are associated with better adaptation. (Alvord & Grados, 2005; Connor & Davidson, 2003; Cheraghian et al., 2023). Recent evidence from an Arab context also shows the educational significance of psychological immunity, as Al-Shehri (2026)

found it to be a protective factor among Saudi female secondary students.

Thus, the theoretical link between Mindfulness and psychological immunity is intriguing. Awareness, flexibility, self-regulation, and adaptive coping are included in both constructs. Attuned students may be better able to notice stress without feeling overwhelmed, manage their thinking and feelings, and respond to stress in a more balanced way. Thus, Mindfulness could enhance internal resources, building up to psychological immunity. Although there is conceptual overlap, there are still few studies that examine the role of Mindfulness in psychological immunity, especially among university students in Jordan. Based on the above, the present study aims to examine the relative role of Mindfulness in the psychological immunity of Hashemite University students.

Methodology

The study population and its sample

The study population consisted of all male and female students enrolled in the Faculty of Educational Sciences at the Hashemite University during the first semester of the 2025/2026 academic year, totaling 30,825. The study sample consisted of 432 male and female students selected using simple random sampling.

The Study Instruments

Two instruments were used: The Mindfulness Scale and the Psychological Immunity Scale.

First: The Mindfulness Scale (Johnson et al., 2017)

The scale of Mindfulness drew inspiration from previous work, particularly the research by Johnson et al. (2017) and Baer et al. (2006). The final version included 30 items spread across five dimensions: observing, describing, acting with awareness, non-judging, and non-reactivity. Hypothetical validity was explored with a sample of 30 students (neither sample A nor sample B). Items had acceptable item–dimension correlation, all >0.20 , and the item–total correlation ranged between 0.39 and 0.64, with an item–domain correlation ranging between 0.44

and 0.80. The instrument was found to be statistically valid at the 0.05 level of significance, with positive correlations among the dimensions and between the dimensions and the total scores. Test–retest reliability over 2 weeks and Cronbach's alpha for the internal consistency were performed and yielded acceptable reliability. Respondents were asked to respond on a 5-point Likert scale (1=strongly disagree, 5=strongly agree). Mean scores were interpreted as low (1.00–2.33), moderate (2.34–3.67), and high (3.68–5.00).

Second: Psychological Immunity Scale

The Psychological Immunity Scale was developed based on the relevant literature, particularly Oláh (2021). The 51 items are distributed across three dimensions: containment system, adaptive coping system, and self-regulation. A pilot sample of 30 students was used to investigate construct validity. The item–dimension correlation coefficients showed acceptable values, all above 0.26. Items had an item–total correlation range from 0.35 to 0.67, and the item–domain correlation range from 0.45 to 0.82. Construct validity of the instrument was supported by significant ($P < .05$) correlations among the dimensions and the total score.

Test–retest reliability and internal consistency (Cronbach's alpha) were used to assess reliability. A second test was given to 30 pupils outside of the main group after two weeks. The obtained coefficients were statistically significant and acceptable, which showed good reliability. Responses were recorded on a five-point Likert scale, which ranged from 5 = completely applies, 4 = strongly applies, 3 = somewhat applies, 2 = slightly applies, and 1 = does not apply. The mean scores were divided into low (1.00–2.33), moderate (2.34–3.67), and high (3.68–5.00) categories, corresponding to a strong level of psychological immunity.

The Study Variables

The study included the following variables: mental alertness and psychological immunity.

Findings

Results related to the first question: "What is the level of mindfulness among students of the Faculty of Educational Sciences at the Hashemite

University?", the arithmetic means and standard deviations of the students' responses to the items of the mindfulness scale and its five dimensions were calculated, as shown in Table 1.

Table 1: Arithmetic means and standard deviations of students' responses to the items of the mindfulness scale

Dimension	Mean	Standard deviation	level of alertness	Arrangement
Description	4.08	0.28	High	1
Working consciously	3.91	0.19	High	2
Observation	3.51	0.26	Moderate	3
Lack of interaction	3.31	0.25	Moderate	4
Failure to make judgments	3.08	0.31	Moderate	5
Total score	3.64	0.11	Moderate	

Table 1 suggests that overall, the respondents were moderately mindful ($M = 3.64$, $SD = 0.11$). The dimensional level of description had the highest mean score ($M = 4.08$, $SD = 0.28$), followed by working consciously ($M = 3.91$, $SD = 0.19$). The other dimensions were reported at moderate levels, with observation coming in third ($M = 3.51$, $SD = 0.26$), lack of interaction ranking fourth ($M = 3.31$, $SD = 0.25$), and failure to make judgments ranking fifth, with the lowest mean score possible ($M = 3.08$, $SD = 0.31$). These results indicate that descriptive abilities regarding

experiences and awareness of action are well developed in students, whereas the tendency to be nonjudgmental and less reactive is less well developed.

Results related to the second question: "What is the level of psychological immunity among students of the Hashemite University?", the arithmetic means and standard deviations of the students' responses to the items of the psychological immunity scale and its dimensions were calculated, as shown in Table 2.

Table 2: Arithmetic means and standard deviations of students' responses to items on the Psychological Immunity Scale

Dimension	Mean	standard deviation	immunity level	Arrangement
Containment system	3.69	0.33	High	1
Adaptive coping system	3.49	0.20	Moderate	2
Self-regulation	3.50	0.20	Moderate	3
Total score	3.54	0.16	Moderate	

Results from Table 2 indicated that the general level of psychological immunity was moderate ($M = 3.54$, $SD = 0.16$). At the dimensional level, the containment system was rated 1 and reported in the higher range ($M = 3.69$, $SD = 0.33$), indicating that students' psychological resources to manage stress and keep things within themselves were rather high. The self-regulation dimension was at a moderate level ($M = 3.50$, $SD = 0.20$), and the adaptive coping system question was at a moderate level, slightly below self-regulation ($M = 3.49$, $SD = 0.20$). Based on these findings, it can be concluded that students have a relatively high psychological containment

capacity but are still moderate in coping and self-regulation and need to be supported in psychological containment.

Results related to the third question: What is the relative contribution of Mindfulness to psychological immunity among students of the Hashemite University? A simple linear regression analysis was used to determine the extent to which Mindfulness (independent variable) predicts psychological immunity (dependent variable) among students at Hashemite University, as shown in Table 3.

Table 3: Results of the regression analysis to determine the contribution of Mindfulness in predicting psychological immunity among students at the Hashemite University

Variable	β Standardized regression coefficient	Standard error of β	T value	Multiple correlation coefficient (R)	Multiple coefficient of determination (R^2)	Level of significance
Mindfulness → Psychological Immunity	0.991	0.050	0.379	0.689	0.475	0.000

Table 3 indicates that Mindfulness positively and significantly affected psychological immunity. However, the standardized regression coefficient was significant and high ($\beta = 0.991$), meaning that the more mindful one is, the more likely he or she is to be psychologically immune. It is important to note that the model's explanatory power, as indicated by $R = 0.689$ and $R^2 = 0.475$, is substantial, as it explains 47.5% of the variance in psychological immunity. The p-value was 0.000; the standard error was 0.050; and the t-value was 0.379, which was statistically significant. The general results showed that, among the subject participants, there is a high likelihood of a relationship between Mindfulness and psychological immunity.

Discussion of the Results

The results indicated that the mean score of Hashemite University students on psychological

immunity and Mindfulness was moderate, and that Mindfulness had a significant positive influence on psychological immunity. This suggests that students have useful or competent awareness, emotional regulation, and adaptive capacities, but not well-developed. Description and awareness-based acting are both higher-scoring, suggesting that students' capacity to process their experiences and integrate them into daily life is relatively high. In contrast, description does not exhibit evaluative thoughts or automatic patterns of emotion; lower scores suggest students are not very good at reducing them. Likewise, the containment system scores higher, indicating a relatively good capacity to maintain psychological balance under pressure; adaptive coping and self-regulation seem underdeveloped.

The moderately high level of Mindfulness might reflect the nature of university life, requiring students to direct their attention, structure

information, and respond to multiple academic demands. Academic burden, peer influences, and doubts about their abilities, however, may restrict their ability to control judgmental thoughts and emotional reactivity. This interpretation resonates with the proposed definition of Mindfulness, which describes a process characterized by awareness, openness, flexibility, and emotional self-control (Brown & Ryan, 2003; Carson & Langer, 2006; Garland et al., 2017). Furthermore, it aligns with the studies of Lauria et al. (2016) and Sahinler et al. (2026), which found that Mindfulness is significant for students' psychological functioning in universities.

The average level of general psychological immunity implies that pupils have a functioning but not optimal stress adjustment and management system. This is consistent with the idea of psychological immunity as a dynamic system of emotional, cognitive, and self-regulatory mechanisms that protect an individual facing stress (Masten, 2001; Oláh et al., 2010; Oláh, 2021). It is further in line with Al-Shehri's (2026) findings, indicating that students' psychological immunity is at a moderate level. However, whereas family support was not significantly related to psychological immunity as per Al-Shehri's findings, the present study finds that Mindfulness acts as a strong predictor, suggesting that inner, self-regulatory resources may be more readily associated with psychological immunity than external support factors.

The strong prediction by Mindfulness is that students high in Mindfulness are more likely to see stressful experiences without being consumed by them, to choose average responses in the face of challenging circumstances, and to monitor thoughts and emotions to stay on track. The present finding is consistent with the findings of Sahinler et al. (2026), which shows a positive relationship between Mindfulness and mental health among university students, coping-related self-regulation as put forward by Böke et al. (2026), and the reduction of perceived stress by mindfulness-based interventions as observed by Rajan et al. (2026). However, when taken together, the evidence confirms the effectiveness

of Mindfulness for adaptive psychological functioning and students' resilience to pressure.

In conclusion, the study reveals that mindful awareness is a vital psychological resource that can enhance psychological immunity among Jordanian university students. Mindfulness can help raise awareness, manage emotions, and promote adaptive responses, leading to greater psychological equilibrium and resilience in handling academic and social pressures.

Conclusion

The present study examined the relative contribution of Mindfulness to the psychological immunity of students at Hashemite University. Results showed moderate scores on Mindfulness and psychological immunity, indicating that students have moderate levels of present-moment awareness, emotion regulation, adaptive coping, and self-regulation. In particular, students demonstrated greater competence in describing experiences and acting with awareness, while non-judgment and non-reactivity seemed less advanced. However, the containment system emerged as the most robust aspect of psychological immunity, while adaptive coping and self-regulation were at a moderate level. Most critically, Mindfulness emerged as an important positive antecedent of psychological immunity, accounting for 47.5% of its variance. The noted result shows that Mindfulness is a significant internal psychological asset that contributes to students' adjustment of the stress response, emotional balance, and adaptive responses to academic and social pressures. The study is a novel work and adds to the body of literature by offering empirical data from a Jordanian higher education context, as psychological immunity research in the context of Mindfulness is sparse. Specifically, the results suggest that university student support services should implement mindfulness-based educational and counseling interventions, including mindfulness training, reflective learning activities, stress-management workshops, and the design of mental health prevention programs. These could boost students' psychological adaptability and support their ability to address

academic, personal, and social challenges. However, limitations in the methodology should be considered, including the cross-sectional design and the study's focus on a single faculty within a single university, which limit the interpretation of causal relationships and the generalizability of the results. Future studies should be longitudinal and experimental, involve students from various faculties and universities, and include other variables such as resilience,

social support, emotional intelligence, academic stress, and coping style. The study highlights the significant role of Mindfulness as an appropriate indicator of psychological immunity. It indicates that efforts to promote mindful awareness in higher education institutions should not be considered solely as a wellbeing activity, but also as a developmental strategy to strengthen psychological immunity and improve students' emotional stability and adaptive functioning.

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