



RESEARCH PAPER

Impact of Spiritual Intelligence on Academic Achievement among University Students of AJK: Mediating Role of Mindfulness

¹ Misbah Afzal*, Zoonish Aziz and ³ Zohra Altaf

1. MS Scholar, Department of Psychology, International Islamic University Islamabad, Pakistan
2. Lecturer, Department of Psychology, University of Azad Jammu and Kashmir, Muzaffarabad, AJK, Pakistan
3. MS Scholar, Foundation University, Islamabad, Pakistan, Pakistan

***Corresponding Author:** mabaig923@gmail.com

ABSTRACT

This study explored the relationship between spiritual intelligence and academic achievement among university students in Azad Jammu & Kashmir, with a specific focus on the mediating role of mindfulness. Using a quantitative approach, data were collected from 200 students (equally divided by gender), aged 18 to 30, across various universities in the region through convenient sampling. Standardized tools were used to assess spiritual intelligence, mindfulness, and academic achievement. The results revealed significant positive correlations among the three variables, indicating that students with higher spiritual intelligence are more likely to perform better academically, and that mindfulness plays a mediating role in this relationship. These findings underscore the importance of nurturing both psychological and spiritual dimensions in students to support their academic performance. It is recommended that educational institutions incorporate mindfulness and spiritual development practices into their programs to enhance student well-being and foster academic success.

KEYWORDS Spiritual Intelligence, Academic Achievement, Psychological Hardiness and Mindfulness

Introduction

Within any educational system, the evaluation of a student's achievements or performance serves as the criterion for success in scientific and intellectual activities. Achievement encompasses various dimensions, including physical, social, cognitive, emotional, and spiritual growth. Extensive research has emphasized the role of intelligence in academic achievement (Dehshiri, 2008). However, recent advancements in the field provide insight into the significance of other types of intelligence in academic success. One such intelligence is spiritual intelligence, which represents a higher level of intelligence encompassing emotional, cognitive, psychomotor, ethical, and interpersonal aspects. Education specialists argue that individuals demonstrating higher levels of spiritual intelligence tend to display increased contentment and academic success, especially within university student populations.

Spiritual intelligence encompasses a broad spectrum of beliefs and understandings, including the recognition of our spiritual nature, a belief in a higher power, a need for guidance, a search for life's purpose, an understanding of our relationship with God, and adherence to life's guiding principles. These components collectively contribute to a deeper and more meaningful existence, impacting our choices, values, and overall well-being.

Spiritual intelligence represents a unique human ability to ponder deep questions about the meaning of our lives and the place of humans in the world (Srivastava, 2016).

Spiritual intelligence is a less comprehensive intelligence that augments a person's ability to connect with a higher power or sacred presence. People with high spiritual intelligence are more flexible, self-aware and take a holistic approach to understanding the experiences and challenges of life. Spiritual intelligence includes the practice of aligning a person's inner spiritual life with their outer reality, while also enhancing one's well-being and quality of life (Hosseini et al., 2010).

Spiritual intelligence has demonstrated a significant role in various academic domains. Students with higher levels of spiritual intelligence are more adept at problem-solving and effectively avoid negative emotions (Ismail, & Krauss, 2009). It also enhances mental well-being, nurtures or cultivates self-assurance, improves task-solving abilities, facilitates goal achievement, and enhances the overall standard of students (Sharma & Arif, 2015). Therefore, individuals possessing spiritual intelligence are more inclined to view their work as a vocation rather than mere employment. They possess the ability to perceive elevated correlations between elements and surpass everyday challenges, surpassing them in pursuit of a loftier objective (Emmons, 2000).

Achievement can be defined as the progress made towards personal or institutional goals. When referring to students, achievement pertains to the successful fulfillment of the objectives outlined within the curriculum. In educational settings, the primary aim of achievement is to promote academic improvement and progress. Academic achievement encompasses the knowledge, skills, accomplishments, and overall development that students acquire under the guidance of their teachers. This extends beyond behaviorism and includes changes in students' behavior across various areas of the curriculum, including psychomotor and affective domains (Kazazoglu, 2013).

Facilitating academic achievement involves students effectively completing assigned tasks, adopting a perfectionist mindset, displaying resilience in the face of challenges, and developing strategies to overcome encountered obstacles. These factors contribute significantly to fostering students' academic success and growth within an educational context (Cox, 1990).

According to (Febrianti, 2015), a positive correlation exists between spiritual intelligence and academic success. Students who demonstrate elevated levels of spiritual intelligence are more receptive to criticism regarding their weaknesses and demonstrate self-awareness in order to improve upon those weaknesses. Moreover, having high spiritual intelligence can serve as a protective factor, preventing students from engaging in close interactions with peers who may potentially distract them and lead them towards inappropriate actions. Such inappropriate actions may include partying, substance abuse, promiscuity, and other behaviors that could hinder students from attaining their academic goals.

Past research has consistently shown a meaningful link between spiritual intelligence and psychological well-being. For example, Siddiqui and Khan (2018) found that participants ($n = 360$) with higher spiritual intelligence reported significantly greater levels of psychological well-being. In the context of Pakistani university students – many of whom face intense academic demands and societal expectations (Ashraf et al., 2022) – spiritual intelligence may serve as a valuable internal strength that helps students manage stress and maintain emotional balance.

The literature also highlights the role of spiritual intelligence in promoting self-transcendence—a shift in perspective from seeing oneself as isolated to feeling connected to something larger (Nasiri et al., 2019). This sense of connection may be particularly beneficial for students who feel lonely or disconnected, as it can foster a deeper sense of purpose and belonging. Additionally, spiritual intelligence has been associated with adaptive coping strategies, including mindfulness, which are known to support emotional regulation and reduce anxiety (Moeini et al., 2019).

Recognizing the importance of focused attention in academic performance, this study introduces mindfulness as a mediating factor. Mindfulness refers to being consciously and attentively present in the moment, without judgment. This research aims to investigate how spiritual intelligence contributes to academic success and whether this relationship is influenced by a student's level of mindfulness. The underlying assumption is that students who are more mindful may better utilize their spiritual intelligence to enhance learning outcomes. Such individuals are likely to experience fewer distractions, manage their thoughts more effectively, and maintain concentration during academic tasks. On the other hand, those with lower mindfulness may find it more difficult to translate their spiritual insights into academic achievement (Zinn, 2003).

Mindfulness, according to Howell et al. (2008), has been shown to improve mental well-being among university students. Furthermore, Weinstein et al. (2009) proposed that people with higher levels of mindfulness are more likely to approach stressors which surround them with a rational response and avoid avoidance coping. Mindfulness entails being fully present and aware of the current moment. It involves purposefully directing attention and accepting experiences without judgment. However, achieving mindfulness is challenging for many individuals, and the opposite state, mindlessness, can arise, where individuals consciously or unconsciously disregard or neglect objects of emotion, thought, intention, or perception (Özyeşil, 2011).

Mindfulness is characterized as a state of attentiveness, presence, and consciousness regarding one's surroundings and the ongoing events. It involves being aware of the environment, tuning into sensory information, and concentrating on the present moment. Their conception emphasizes the conscious process of directing attention to sensory inputs and focusing on the occurrences in both the external environment and internal experiences. The initial notions of mindfulness highlight a clear and focused awareness of the present reality and one's internal states in successive moments of comprehension (Brown & Ryan, 2003).

Self-Determination Theory to the context of spiritual intelligence and mindfulness implies that aligning these factors with intrinsic motivation and basic psychological needs positively impacts academic achievement (Deci & Ryan, 2000). Establishing a learning environment that supports autonomy, competence, and relatedness helps promote student motivation and well-being that contribute to academic success.

Self-Determination Theory (SDT) is a useful perspective for examining the relationship between spiritual intelligence, mindfulness, and academic performance. Important to SDT's emphasis on intrinsic motivation is the notion that people operate best when engaged for the sake of the inherent satisfaction they derive from the activity (Deci & Ryan, 2000). The spiritual intelligence variable considered in academic success connects with intrinsic motivation, as spiritual intelligence evokes personal meaning and values, both of which stimulate intrinsic motivation for realizing academic outcomes.

Examining core psychological needs, autonomy, competence, and relatedness, helps to understand how spiritual intelligence and academic achievement connect. Self-Determination Theory (SDT) suggests that those high in spiritual intelligence likely enjoy more autonomy since they make decisions based on internal rather than external standards to evaluate decisions. In other words, spiritual intelligence facilitates self-direction. Additionally, mindfulness, which is part and parcel of spiritual intelligence, enhances self-awareness and emotional regulation, which increases an individual's competence. Furthermore, the research shows the role that spiritual intelligence can serve in developing a sense of higher purpose, which can help satisfy the psychological need for relatedness by reinforcing the connection to others and the world.

According to SDT in creating an autonomy-supportive environment is incredibly important for the cultivation of intrinsic motivation. What may allow for an autonomy-supportive environment are educational practices that align with spiritual values, and support mindfulness. First, we can provide autonomy for students to include mindfulness in their learning routines enhancing their engagement and performance. In addition, SDT argues people tend to persist longer in goals that correspond with their values. Personally, spiritual intelligence supports meaningful academic goals, and mindfulness allows for us to implement those goals with a commitment to our values adhering to the promise of achieving academia.

The theory of well-being is viewed to have intrinsic motivation in SDT, intrinsic motivation as Deci and Ryan (2000) indicated, is reflected positively by mindfulness practice with all components of spiritual intelligence. This would be considered a positive cycle which produces academic success. It has been reported mindfulness also reinforces an overall state of well-being.

Previous studies on spiritual intelligence in Pakistan have linked interconnections with psychological well-being (Anwar & Rana, 2023), life satisfaction, and psychological distress (Sindhu & Akbar, 2023). Furthermore, a study conducted in Pakistan illustrated a positive correlation between spiritual intelligence and the academic performance of university students of Islamabad (Turi & Rani, 2020). Present study has been designed to measure the relationship of study variables referring specifically to university students of Azad Jammu and Kashmir. The present research also addresses this empirical gap by examining mindfulness as potential mediator in the relationship between spiritual intelligence and academic achievement among university students.

Literature Review

Academic performance continues to be regarded as a key indicator of student success within educational settings. Traditionally, it has been linked closely with cognitive abilities, particularly intelligence (Dehshiri, 2008). However, recent perspectives have expanded to include non-cognitive factors – such as emotional, social, and spiritual intelligence – as equally important contributors to academic outcomes. This shift reflects a broader understanding of human potential, acknowledging that attributes beyond intellectual capacity play a vital role in student achievement. Among these, spiritual intelligence stands out as a unique form of awareness that integrates emotional, ethical, and existential dimensions of understanding. Emmons (2000) describes spiritual intelligence as the capacity to apply spiritual insight in solving life's challenges and pursuing meaningful goals. Studies suggest that individuals with higher levels of spiritual intelligence tend to report increased life satisfaction, deeper self-awareness, and

stronger emotional resilience—all of which are positively associated with enhanced academic performance.

Spiritual intelligence includes, but not limited to, a purpose in life, ethical orientation, self-transcendence, and awareness of connectedness to all life (Srivastava, 2016). Spiritual intelligence is important in managing stress and healthy emotions as well as approaching academic work intrinsically motivated and engaged. Research by Ismail and Krauss (2009) found that students with high spiritual intelligence reported better coping with academic stress, problem-solving performance, and goal-setting. In the Pakistani context, Siddiqui and Khan (2018) reported that students with higher spiritual intelligence had much greater psychological well-being (PWB), a quality that is strongly connected to academic persistence and mental well-being. Anwar and Rana (2023) asserted that spiritual intelligence was important to the psychological well-being of university students in Pakistan, and potentially a factor in improving academic performance.

Mindfulness has also been shown to be a positive correlate of academic success. Mindfulness, which is termed as awareness of purposeful present-moment (Brown & Ryan, 2003), enables students to improve their focus and concentration, regulate their emotions, and manage their stress. Weinstein et al. (2009) found that greater mindfulness was related to being more rational in dealing with stress and reduced reliance on avoidance strategies of coping. Mindfulness has also been shown to assist attentional focus and lower academic anxiety (Howell et al., 2008), which may be positively associated with achievement. Özyeşil (2011) has argued that mindlessness (or lack of conscious awareness) causes students to ignore important academic and emotional cues, thus promoting the potential to foster mindfulness as a protective factor.

Self-Determination Theory (SDT) provides a powerful framework to understand how spiritual intelligence and mindfulness can intersect to support academic success. According to Deci and Ryan (2000), intrinsic motivation entails autonomy, competence, and relatedness, which are required to stay engaged academically. Spiritual intelligence influences intrinsic goal setting for students and aligns the academic efforts with their most dearly held values. Mindfulness, meanwhile, supports self-awareness and emotional regulation that enhances students' sense of competence. When employing intrinsic motivation, through spiritual insight (Goleman, 1995) or mindful presence (Moore et al., 2012), students are more persistently on their academic goals and may become more significantly engaged in their learning. In prior empirical studies in Pakistan, evidence has been established for this line of research. Turi and Rani (2020) found a positive relationship between spiritual intelligence and academic performance among university students in Islamabad.

Sindhu and Akbar (2023) found that spiritual intelligence is negatively linked with psychological distress and positively associated with life satisfaction. However, there remains limited research that reviewed both mindfulness and spiritual intelligence together to examine the mediating effect, with a specific emphasis on studying students from less-represented regions such as Azad Jammu and Kashmir. As students in these regions have limited access to education resources often due to their socio-economic situations, a deeper investigation of the triaxial relationship could lead to context-specific interventions to improve resilience and well-being.

This study contributes to a significant gap in the literature in examining the role of mindfulness as a mediator of the relationship between spiritual intelligence and

academic performance in university students of Azad Jammu and Kashmir. Drawing from the literature and an established, widely acknowledged theoretical framework (in this case Theory of Planned Behavior and Self-Determination Theory), this study utilized accepted psychometric instruments and concepts relevant to the culture, thereby broadening the reader's understanding of the students' academic functioning. Consequently, this study contributes to the increasing body of literature on spiritual intelligence and mindfulness, while releasing actionable insights for educational policymakers and mental health practitioners working with university students in Pakistan.

Hypotheses

The hypotheses of the present study include:

- H1: A significant positive relationship is expected among spiritual intelligence, mindfulness, and academic achievement in university students.
- H2: Spiritual intelligence is anticipated to be a positive predictor of academic success in the university student population.
- H3: Mindfulness is likely to serve as a mediating factor in the connection between spiritual intelligence and academic performance among university students.
- H4: Postgraduate students (Master's level) are expected to demonstrate higher levels of spiritual intelligence, mindfulness, and academic achievement compared to undergraduate (Bachelor's level) students.

Conceptual Framework

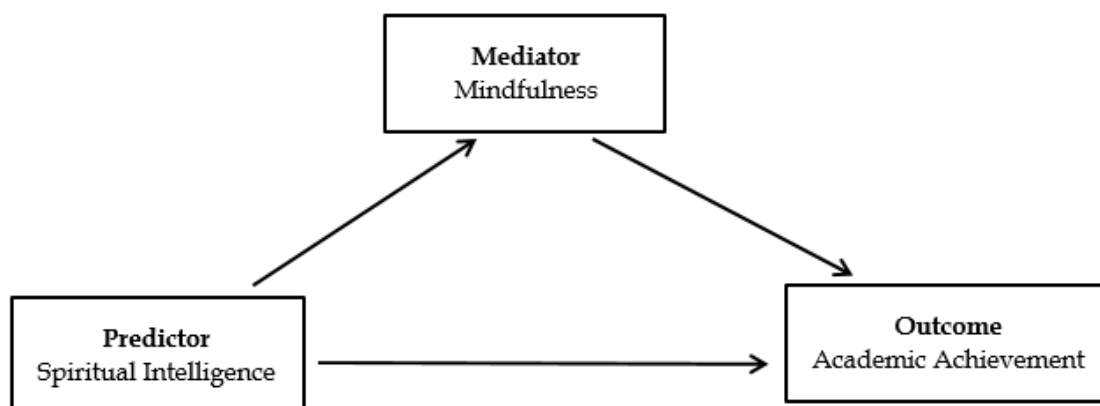


Figure 1: Simple Mediation Model

Material and Methods

Research Design

This study employed a **cross-sectional design** to examine the relationships among the selected psychological variables. Students who had physical disabilities or reported any form of diagnosed mental health conditions were excluded from participation to maintain the homogeneity of the sample.

Sample

Convenient sampling technique was used for the collection of data. The sample was comprised 200 university students (females = 100 and males = 100) having age range of 18-30. The sample was taken from different universities of Azad Kashmir including Women University Bagh, University of Poonch Rawalakot.

Instruments

Demographic Information Form.

A self-constructed demographic form was utilized to gather essential background information from participants. This included their age, gender, level of education (Bachelor's or Master's), and cumulative grade point average (CGPA) from the most recent academic semester.

Spiritual Intelligence Self-Report Inventory (SISRI-24)

Spiritual intelligence was assessed using the SISRI-24, a 24-item scale introduced by King (2008). Participants responded to each item on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), producing overall scores between 24 and 96. The instrument comprises four key components: Critical Existential Thinking (7 items), Personal Meaning Production (5 items), Transcendental Awareness (7 items), and Conscious State Expansion (5 items). The original version of the inventory demonstrated excellent internal consistency ($\alpha = .92$), while reliability within the current study sample was also strong ($\alpha = .80$).

Academic Life Assessment Scale (ALAS)

To evaluate students' academic involvement and performance, the Academic Life Assessment Scale developed by Santos et al. (2008) was utilized. This measure consists of 23 items, each rated on a 5-point Likert scale from 1 (totally disagree) to 5 (totally agree), with higher total scores reflecting better academic integration. Previous research by Vendramini et al. (2004) established the scale's reliability at $\alpha = .87$. In this study, the scale maintained a satisfactory level of reliability ($\alpha = .75$).

Mindful Attention Awareness Scale (MAAS)

Mindfulness was measured through the MAAS, a 15-item tool created by Brown and Ryan (2003). Items are rated on a 6-point Likert scale, assessing the degree of mindful awareness in everyday experiences. The MAAS has been widely validated and reported a reliability coefficient of $\alpha = .87$ in earlier research. In the present study, the scale yielded a Cronbach's alpha of $\alpha = .80$, indicating good internal consistency.

Procedure

To gather data, it was essential to obtain formal authorization from the relevant authors regarding the use of the scales. The supervisor signed a permission letter for this purpose. Additionally, participants were provided with a consent form, ensuring they fully understood and willingly participated in the study. Only students who expressed their willingness were included. Participants were explicitly instructed to respond truthfully, sincerely, and with genuine opinions. Participants' identities were kept anonymous, and all data collected were handled with strict confidentiality.

Results and Discussion

Table 1
Correlation among Spiritual Intelligence, Mindfulness and Academic Achievement

Variables		1	2	3
1	Spiritual Intelligence	-	.42**	.48**
2	Mindfulness	-	-	.34**
3	Academic Achievement	-	-	-

Note. ** $p < .01$

Table 1 demonstrates correlation coefficients for intelligence, mindfulness and academic achievement among university pupils. Result show that Spiritual Intelligence is significantly positively related with Mindfulness ($r = .42$, $p < .01$), and Academic Achievement ($r = .48$, $p < .01$). Mindfulness is significantly positively related with Academic Achievement ($r = .34$, $p < .01$).

Table 2
Mean, Standard Deviations and t-values along educational level on Variables

Variables	BS	MS					
	($n = 167$)	($n = 33$)	95% CI				
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>t</i> (198)	<i>p</i>	<i>LL</i>	<i>UL</i>	Cohen's <i>d</i>
Spiritual Intelligence	54.9(10.2)	60.45(14.7)	-2.60	.01	-9.71	-1.33	0.43
Mindfulness	52.50(10.9)	56.87(13.2)	-2.02	.04	-8.63	-.118	0.35
Academic Achievement	64.4(10.6)	69.75(10.7)	-2.62	.00	-9.37	-1.33	0.49

Note. CI = Confidence Interval; LL = Lower Limit; UL = Upper Limit,

Above Table 3 describes the results of mean difference on the basis of educational level of study participants on Spiritual Intelligence, Academic Achievement, and Mindfulness. Individuals holding Master's degree exhibit higher levels of Spiritual Intelligence, Mindfulness and Academic Achievement compared to those with a Bachelor's degree. Analysis indicates significant mean differences ($p < 0.05$) on the basis of educational level on these variables.

Table 3
Simple Linear Regression showing Spiritual Intelligence as Predictor of Academic Achievement

	<i>B</i>	<i>SEB</i>	β	<i>T</i>	<i>p</i>
Constant	1.7	.14		11.5	.000
Spiritual Intelligence	.49	.06	.48	7.9	.000

Note. $R = 4.8$, $R^2 = .23$

Table 3 presents the results of the regression analysis examining the effect of spiritual intelligence on academic achievement among university students. The model accounted for 23% of the variance in academic achievement, as indicated by an R^2 value of .23, $F(1, 198) = 62.19$, $p < .001$. The analysis demonstrated that spiritual intelligence was a significant positive predictor of academic achievement ($\beta = .48$, $p < .001$).

Table 04
Mediating role of Mindfulness between the relationship of Spiritual Intelligence and Academic Achievement

Predictors	Outcome: Academic Achievement						
Model	R^2	<i>B</i>	<i>S. E</i>	β	<i>t</i>	<i>p</i>	95% CL
Step 1							

Constant		39.0	3.3		11.5	.000	[32.3,45.7]
Spiritual Intelligence	.23	.47	.05	.48	7.8	.000	[.35, .59]
Step 2							
Constant		34.3	3.8		8.9	.000	[26.7, 41.9]
Spiritual intelligence		.40	.07	.41	6.19	.000	[.27, .52]
Mindfulness	.26	.16	.06	.17	2.5	.013	[.03, .28]

For step 1 F= 62.20, for step 2 F= 35.04

Note: $P < .05$, R^2 = Explained Variance, CL= Confidence Interval Limits, SE= Standard Error, β = Standard Coefficient Beta

The table shows Spiritual Intelligence (SI) is a significant positive predictor of Academic Achievement (AA). After controlling for the influence of Mindfulness, SI still has a significant direct relationship with AA. When SI and MF are entered into the model together, we can see that AA variances accounted for has improved, suggesting that it is a better model. The total and direct effects are compared and we see that the total effect is less than the direct effect when controlling for MF, meaning MF partially mediates the relationship between SI and AA. Finally, we see a significant indirect effect through MF, supporting the mediation model and showing the importance of mindfulness as one proposed psychological mechanism by which spiritual intelligence may impact academic success.

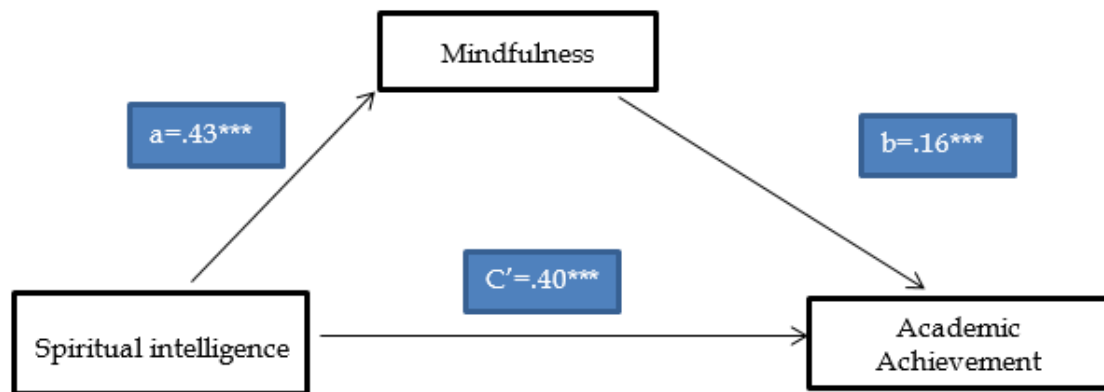


Figure 2 Model showing Mindfulness as a mediator between Spiritual Intelligence and Academic Achievement

Discussion

This study set out to explore how spiritual intelligence influences academic achievement, with a particular focus on whether mindfulness plays a mediating role in this relationship among university students. The first hypothesis – which proposed that both spiritual intelligence and mindfulness would be positively associated with academic achievement – was supported by the data. The findings revealed a statistically significant positive correlation among all three variables, highlighting the interconnectedness of cognitive and psychological factors in supporting students' academic success and persistence. These results underscore the value of addressing not just intellectual but also emotional and spiritual dimensions of student development. Moreover, the outcomes align with previous research by Rachel and Salini (2013), Bellinger and Ralston (2015), and others, which consistently found that both spiritual intelligence and mindfulness contribute positively to academic performance.

The second hypothesis stated that spiritual intelligence is a positive predictor of academic achievement. This hypothesis was also confirmed. Spiritual intelligence was a positive and statistically significant predictor of academic achievement, and aligned with the studies of (Zohar , 2000), (William & Issac, 2016), (Wood & Hilton , 2012), students with higher scores in two or more dimensions of spiritual intelligence tended to be more creative, motivated with a stronger work ethic along with wider range of apathy compared to lower spiritual intelligence students which contribute to academic achievement.

The third hypotheses stating mindfulness mediated the relationship between spiritual intelligence and academic achievement is partially renewed. The results showed that mindfulness partially mediates this relationship. This finding suggests that mindfulness enhances the ability of students with high spiritual intelligence to focus and apply themselves in academic settings, leading to better academic outcomes. Previous research, including works by (Rodgers, 2014) and (Broderick & Jennings, 2012), supports the idea that mindfulness improves concentration, organizational skills, and overall academic performance

The fourth hypothesis suggested that students at the Master's level would score higher on spiritual intelligence, mindfulness, and academic achievement compared to Bachelor's students. This hypothesis was confirmed, indicating that advanced students likely benefit more from their developed cognitive and spiritual skills. This could be due to the maturity and experience gained over the course of their academic journey (Turi & Rani, 2020).

Conclusion

The current study aimed to examine the effects of spiritual intelligence on the academic achievement of university undergraduates, and partial mediation from mindfulness between spiritual intelligence and academic achievement. The study provides some meaningful insights into the relationships between these psychological concepts in the context of academic achievement for university students.

First, the research demonstrates the important role of spiritual intelligence in the academic achievement of university students. Students who express high spiritual intelligence tend to have a greater sense of meaning and purpose in their education, and this spiritual intelligence can motivate them to persist in their academic dedication, even in times of struggle, thereby enhancing their academic achievement.

Additionally, we found that mindfulness partially mediated the relationship between spiritual intelligence and academic achievement. This suggests that mindfulness may be helpful in terms of enhancing students' academic performance by augmenting their spiritual intelligence.

Implications

The study's findings underscore the importance of integrating spiritual and mindfulness practices into educational curricula to enhance students' academic performance and overall well-being. Implementing mindfulness-based programs can help students improve focus, reduce stress, and achieve better academic outcomes. University counselors and support services can design interventions to boost students' spiritual intelligence and mindfulness skills, aiding stress management and personal

growth. The research supports holistic education, emphasizing personal and emotional development alongside academic success, and informs educational policies to incorporate these dimensions. Encouraging interdisciplinary collaboration between education, psychology, and spirituality can lead to innovative student support approaches. Additionally, nurturing spiritual intelligence and mindfulness from an early age through parental and teacher involvement, as well as developing personal development programs at universities, can equip students with essential life skills.

Recommendations

Based on the findings of this research, future research should adopt a longitudinal design to explore the causal links between spiritual intelligence, mindfulness, and later academic achievement over time. Ensure differences in sample characteristics, that is, geographical, socio-cultural, across different educational institutions and samples would improve external and consequential validation of the current findings. Researchers may also consider some measured, structured interventions to both develop spiritual intelligence and mindfulness. More knowledge or the outcome of the interventions would also serve to inform educational institutions support student wellbeing and performance through psychological and spiritual development interventions and programmes. To address these issues, future studies should implement structured, long-term interventions aimed at enhancing both spiritual intelligence and mindfulness. Such efforts can offer practical guidance for educational institutions to support students' well-being and academic growth through evidence-based psychological and spiritual development programs.

References

- Anwar, M., & Rana, A. (2023). Spiritual intelligence and psychological well-being among university students in Pakistan. *Pakistan Journal of Psychological Research*, 38(1), 45–60.
- Ashraf, M. A., Anjum, T., & Khan, A. M. (2022). Academic stress, anxiety, and coping strategies among Pakistani university students: A systematic review. *Journal of Behavioral Sciences*, 32(2), 112–128.
- Bellinger, D. B., & Ralston, P. A. (2015). The role of mindfulness in student success. *Journal of College Student Retention: Research, Theory & Practice*, 16(3), 397–412. <https://doi.org/10.2190/CS.16.3.e>
- Broderick, P. C., & Jennings, P. A. (2012). Mindfulness for adolescents: A promising approach to supporting emotion regulation and preventing risky behavior. *New Directions for Youth Development*, 2012(136), 111–126. <https://doi.org/10.1002/yd.20042>
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84(4), 822–848. <https://doi.org/10.1037/0022-3514.84.4.822>
- Cox, B. D. (1990). Promoting academic achievement through resilience training. *Journal of Educational Psychology*, 82(4), 583–590.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- Dehshiri, G. R. (2008). The role of intelligence in students' academic performance. *Journal of Educational Psychology Studies*, 5(2), 65–75.
- Emmons, R. A. (2000). Spirituality and intelligence: Problems and prospects. *The International Journal for the Psychology of Religion*, 10(1), 57–64. https://doi.org/10.1207/S15327582IJPR1001_6
- Febrianti, D. (2015). The relationship between spiritual intelligence and academic achievement. *Journal of Educational Research*, 2(1), 35–42.
- Hosseini, S. M., Khalaji, H., & Rezvani, M. (2010). The role of spiritual intelligence in quality of life improvement. *Iranian Journal of Psychiatry and Behavioral Sciences*, 4(2), 45–52.
- Howell, A. J., Digdon, N. L., Buro, K., & Sheptycki, A. R. (2008). Relations among mindfulness, well-being, and academic achievement in college students. *Canadian Journal of Behavioural Science*, 40(4), 189–199. <https://doi.org/10.1037/a0012759>
- Ismail, Z., & Krauss, S. E. (2009). Spiritual intelligence and its relationship with students' problem-solving ability and goal orientation. *International Journal of Interdisciplinary Social Sciences*, 4(6), 81–92.
- Kazazoglu, S. (2013). Academic achievement and its determinants. *Journal of Educational and Instructional Studies in the World*, 3(2), 9–15.

- Moeini, B., Sharifirad, G., Ardabili, H. E., & Farokhi, Z. (2019). The relationship between spiritual intelligence and mindfulness with anxiety reduction and emotion regulation among students. *Iranian Journal of Psychiatry*, 14(3), 162–170.
- Nasiri, H., Yousefi, N., & Farid, A. A. (2019). Spiritual intelligence and self-transcendence: Predictors of meaning in life. *Journal of Religion and Health*, 58(4), 1102–1113. <https://doi.org/10.1007/s10943-018-0664-6>
- Özyeşil, Z. (2011). Mindfulness and academic success: A psychological exploration. *Journal of Human Sciences*, 8(1), 1338–1355.
- Rachel, J., & Salini, S. (2013). Spiritual intelligence and academic achievement of higher secondary students. *International Journal of Humanities and Social Science Invention*, 2(3), 42–46.
- Rodgers, R. F. (2014). Mindfulness and academic achievement: Exploring mediating and moderating mechanisms. *Journal of Adolescence*, 37(7), 1129–1139. <https://doi.org/10.1016/j.adolescence.2014.07.004>
- Sharma, M., & Arif, M. I. (2015). Role of spiritual intelligence in academic achievement among adolescents. *Indian Journal of Health and Well-being*, 6(5), 514–517.
- Siddiqui, N., & Khan, S. (2018). Spiritual intelligence and psychological well-being among university students in Pakistan. *FWU Journal of Social Sciences*, 12(1), 25–34.
- Sindhu, N., & Akbar, M. (2023). Spiritual intelligence, life satisfaction, and psychological distress among Pakistani university students. *Journal of Behavioral Research*, 39(2), 77–90.
- Srivastava, S. (2016). Spiritual intelligence: Concept and correlates. *International Journal of Applied Research*, 2(9), 414–417.
- Turi, M. A., & Rani, R. (2020). *Spiritual intelligence and academic performance of university students of Islamabad: A correlational study*. *Pakistan Journal of Psychological Research*, 35(4), 753–766.
- Weinstein, N., Brown, K. W., & Ryan, R. M. (2009). A multi-method examination of the effects of mindfulness on stress attribution, coping, and emotional well-being. *Journal of Research in Personality*, 43(3), 374–385. <https://doi.org/10.1016/j.jrp.2008.12.008>
- William, G., & Issac, A. (2016). Impact of spiritual intelligence on academic performance among students. *International Journal of Research in Social Sciences*, 6(6), 102–108.
- Wood, J., & Hilton, S. (2012). Developing spiritual intelligence in the classroom: A critical evaluation of recent trends. *Educational Review*, 64(2), 223–239. <https://doi.org/10.1080/00131911.2011.590251>
- Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, 10(2), 144–156. <https://doi.org/10.1093/clipsy.bpg016>
- Zohar, D. (2000). *SQ: Spiritual intelligence – the ultimate intelligence*. London: Bloomsbury Publishing.