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EXPLORING THE MEDIATING ROLE OF EMOTIONAL INTELLIGENCE IN THE RELATIONSHIP BETWEEN PSYCHOLOGICAL WELL-BEING AND ACADEMIC ACHIEVEMENT AMONG PAKISTANI UNIVERSITY STUDENTS

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ABSTRACT

The present study examined emotional intelligence as a potential mediating factor between psychological well-being and academic achievement in university students in Pakistan. Using a quantitative correlational research design, data were obtained from undergraduate students (n = 350) from three prominent universities in Punjab, Pakistan, using stratified random sampling. The key variables were assessed using Ryff's Psychological Well-Being Scale, the Trait Emotional Intelligence Questionnaire-Short Form, and students' cumulative grade point averages. Various statistical techniques, including Pearson correlations, Baron and Kenny's mediation analysis, Sobel test, and hierarchical regression, were performed in SPSS. Psychological well-being, emotional intelligence, and academic achievement all positively correlating was a notable finding. Emotional

intelligence was also seen to partially mediate the relation between psychological well-being and academic achievement. Students with more psychological well-being were also more emotionally intelligent and, as a result, performed better academically. This makes a unique contribution to the understanding of the psychological dimensions of academic achievement within the higher education context of Pakistan. Moreover, it underlines the importance of including emotional intelligence within psychosocial approaches to education. The results can inform targeted interventions to promote emotional intelligence as a means to enhance student psychological well-being and academic achievement, which can include emotional intelligence training programs and will be of great use to educational psychologists, university administrators, and policymakers.
Keywords: Emotional intelligence, mediating factor, psychological well-being, academic achievement, university students, Pakistan.

INTRODUCTION

Understanding student performance in higher education relies on a host of psychological, emotional, and environmental conditions. As students at a university in Pakistan attempt to balance their personal and social lives with the increasing complexity of the academic settings, the university support systems become increasingly challenging (Zia, Bashir et al. 2024). Academic achievement research has shifted the focus from the traditional elements of cognition and study to include emotional and psychological constituents. The connection between well-being and performance has been well-studied, and the consensus suggests that students with higher well-being perform better academically. However, the relationship of well-being to performance and the underlying mechanisms are still poorly understood, especially in the educational and cultural context of Pakistan (Javaid, Chen et al. 2024).

Multiple aspects contribute to one's psychological well-being such as self-acceptance, having positive relations with others, autonomy, mastery of one's environment, having a purpose in life, and personal growth (Malik, Zafar et al. 2025). University students who retain positive psychological well-being are more capable of handling academic stress, are motivated, and are able to persist in the face of educational challenges. In contrast, students with waning psychological well-being may find it hard to concentrate, become disengaged with their studies, and show underperformance (Sain and II 2023). In the case of Pakistan, students are subjected to a higher education system with a competitive admission structure, stringent academic criteria, and immense societal expectations. Such an environment places a premium on the psychological well-being of students. In the context of academic achievement, to understand the role of psychological well-being, it is important to identify possible mediating variables that could explain the gap in understanding (Muhammad 2024).

As significant and potentially valuable psychological constructs, emotional well-being and emotional intelligence merit further study in relation to one another and to possible psychological outcomes (Zhang, Rehman et al. 2024). Psychological wellbeing is defined in positive terms and is conditioned by one’s emotional responses within a given sociocultural context. Emphasis here is placed on region (Zarifsanaiey, Mehrabi et al. 2022). With emotional wellbeing, individuals are able to identify and work through social challenges and influence one’s personal outcomes within a given structure. Stress, peer relationships, and coping strategies are more adaptive and flexible in individuals with higher emotional intelligence. The gap emotional intelligence fills lead to the conclusion that emotional wellbeing, on its own, is not sufficient to reach a given academic standard, but rather, emotional wellbeing will prepare individuals to develop the emotional intelligence that will enable higher academic outcomes. This can provide groundwork for possible further avenues for psychological support in teaching institutions (Wang 2023).

When looking at these connections, the unique characteristics of the Pakistani universities’ context must be taken into account. Students may be influenced psychologically and emotionally, and perform academically, under the pressure of cultural norms around communitarianism, family honor, and educational attainment. Furthermore, the integration of contextually appropriate pedagogy, the inadequate mental health system, the stigma around mental health, and the prevailing traditional approaches in Pakistani universities necessitate contextually relevant studies to develop appropriate interventions. While the international studies corpus on emotional intelligence and academic attainment continues to grow, studies focusing on the connections described above in the context of Pakistani higher education remain scarce (Abid, Zahid et al. 2021). This study aimed to fill this gap by looking at the role of emotional intelligence in mediating the relationship of psychological well-being and academic achievement in the context Pakistani higher education to provide empirical evidence intended to influence educational policies and practices.

Research Objectives

1. To determine the extent of the relationship between psychological well-being and academic achievement among Pakistani university students.
2. To assess the influence of emotional intelligence on academic achievement among Pakistani university students.

3. To examine the extent of the mediating influence of emotional intelligence on the relationship between psychological well-being and academic achievement among Pakistani university students.

Research Questions

1. What is the association of psychological well-being and academic performance among university students in Pakistan?
2. What is the association of emotional intelligence and academic performance among university students in Pakistan?
3. Does emotional intelligence act as a mediator between psychological well-being and academic performance among university students in Pakistan?

SIGNIFICANCE OF THE STUDY

The significance of this study is the result of psychological and emotional factors influencing academic achievement and developing evidence-based supportive student services at the university level in Pakistan. Emotional intelligence as a mediating factor demonstrates the psychological and emotional constructs that could be targeted for positive change in student achievement and overall well-being. Findings could inform educational administrators in the development of emotionally-supportive orientations, counseling services, and emotionally-responsive curricula. These findings offer university administrators evidence and the necessary justification for strategic initiatives to support and strengthen mental health and emotional development in students and aid constructive emotional and psychological development initiatives. This study adds to the understanding of achievement processes in a developing educational context and addresses the gap in research representation of Pakistani students. This also adds to the culturally reflective discourse in educational psychology at a global level and enhances the local discourse in educational psychology.

LITERATURE REVIEW

The number of research conducted on the interplay between some psychological constructs and educational outcomes within the field of educational psychology continues to grow. Numerous studies have documented the impact of students' thoughts and emotions on the results of the learning process. Among the predictors of a student's academic achievement, psychological well-being is the most important (Greene 2022). Psychological well-being is a multidimensional construct and includes several positive functioning elements. The early theories of humanistic psychology posited self-actualization as the most important (Flake 2021). In educational contexts, self-actualization, and positive functioning, were important indicators of performance. Subsequently, research focused on the specific dimensions of psychological well-being and the extent to which each contributed to academic success. Research conducted within different educational environments and settings has documented the positive impact psychological well-being has on the learning process. Students with higher psychological well-being demonstrate higher academic performance and goal attainment, and lower levels of psychological well-being are associated with task avoidance (Graesser, Sabatini et al. 2022).

Researchers have appreciated the six-dimensional model of psychological well-being to gain the most benefits from understanding positive psychological functioning. It includes self-acceptance as the first dimension. It involves having a positive attitude towards oneself and one's history as self-acceptance. Students with high self-acceptance are more confident of their abilities and more positive about themselves even when facing academic setbacks. As the second dimension, positive relations with others involve the quality of interpersonal relationships and social integration. Students in the university context, and more specifically, those who develop meaningful relations with peers, as well as with faculty, and family members, obtain social support resources that alleviate academic pressures and provide assistance during challenging times. The third dimension, autonomy, involves self-determination and independence in thought and action. Autonomous students more easily make independent academic decisions, negate negative peer pressures, and pursue pathways that are consistent with their educational aspirations (Wong and Liem 2022).

The last three features of psychological well-being are Environmental mastery, psychological well-being, and personal growth, and each of these contributing dimension's functions in a particular way in regard to academic success (Vu, Magis-Weinberg et al. 2022). Environmental mastery is the ability of individuals to construct and adjust environments to meet their needs and manipulate and control complex situations. Students demonstrating high Environmental Mastery seeming to effectively self-ordered study environments and systems in the universities, and resource utilization. Purpose in life and direction is a psychological construct that involves goals and intentions, and in an academic context, these are manifested as educational goals, career goals, and prolonged motivation to achievement (LaFountain 2025). Personal growth is the sixth dimension of psychological wellbeing, and this relates to the idea of continuing to develop and to realize one's potential as a whole. Students demonstrating growth orientation constructively view academic challenges and obstacles as opportunities to learn, and have a high degree of openness, as well as demonstrating the ability to bounce back in the presence of psychological distress. These dimensions and

their relation to achievement have been in the literature, though possibly the most strongly of all in relation to the culture and educational level as context (Coffman, Goodrich et al. 2025).

Emotional research and scholarship focus on new university students adjusting psychologically and emotionally to new life and context challenges. Within this area, emotional intelligence theory has developed. Various equational scholarship frameworks on emotional research have shown difference in values in emotional self-efficacy for and trait-based vs ability emotional models. These students have a developed understanding of complex emotional states and can formulate appropriate emotion regulation response. Such abilities are critical for students in performance anxiety, academic discouragement, maintaining study drive, and managing negative group work or class interactions. Emotional intelligence has a strong positive correlation to academic success, regardless of the level and cross culturally (Stockinger, Rinas et al. 2021).

The various theories regarding the way emotional intelligence affects the variables of academic achievement have been categorically structured. Cognitive theories hold that emotional intelligence improves academic achievement through the integration of high-order information processing, problem solving, and decision-making. Students with high working memory, heightened attention and concentration, and flexible cognitive processing are those that stave off anxiety and hold positive emotional states. Motivational theories posit that emotionally intelligent students are able to sustain a higher level of academic engagement, are more willing to tackle and pursue challenging goals, and demonstrate persistence when facing obstacles. Social theories posit that emotional intelligence enhances cooperative learning and encourages students to voluntarily seek assistance. Moreover, positive emotional relationships with classmates, instructors, and peers that foster learning opportunities are the result of emotional intelligence. Under the stress and coping paradigms, emotional intelligence enables the use of adaptive coping strategies which lessens the impact of academic stress and enhances overall performance (Halimi, AlShammari et al. 2021).

Mediation research, particularly in psychology, helps explain the how's and whys in the relationships between variables. Mediators clarify the means by which one variable impact another, and in doing so, go beyond correlation. In this study, focusing on emotional intelligence as a mediating variable answers the question of how psychological well-being helps translate into academically (Mogård, Rørstad et al. 2022). Students with high psychological well-being may positively function psychologically and, as a consequence, emotional competencies may develop. These emotional competencies promote adaptive response, academically and behaviorally, to the challenges of schooling. These proposed pathways suggest the possible potency of interventions aimed at developing emotional intelligence for students with psychological well-being deficits in order to buffer the impact of psychological deficits on the students academically (Wright and Schultz 2025).

The interplay between psychological well-being, emotional intelligence, and academic achievement has been studied, yet the findings remain inconclusive across different demographics and situations. Positive correlations between these variables have been noted across studies conducted in Western educational frameworks, with emotional intelligence being a strong predictor of academic success, even when cognitive ability was factored in (Shengyao, Xuefen et al. 2024). Studies conducted in non-Western frameworks have identified critical cultural influences affecting the nature and strength of these psychological constructs. Considering South Asian countries like Pakistan, emotional intelligence and its role in educational attainment might be affected by strong collectivistic values predominant in these cultures. The interpersonal dimensions of emotional intelligence may be of greater value in collectivistic cultures, where considerations of academic achievement hinge on social concordance, meeting familial obligations, and other harmony preservation mechanisms. Furthermore, cultural norms on emotional expressions and contrasting patterns of socialization might shape the acquisition and use of emotions differently across and within these cultures (Vu, Magis-Weinberg et al. 2022).

The context of higher education in Pakistan has some characteristics deserving a focused examination of these dynamics. Universities in Pakistan are part of a competitive educational landscape in which access to certain universities and academic programs is based on the results of standardized tests. Such competitiveness may lead to heightened pressure on students which, in turn, may impact their mental health and the emotional regulation challenges they must manage (Javaid, Chen et al. 2024). Moreover, the more traditional 'teaching by lecture' and 'teaching by examination' approaches may provide limited scope to attain, develop and showcase emotional skills, as opposed to educational systems involving cooperative and experiential learning. Socioeconomic diversity in the Pakistani university student population can add to the complexity of the situation since students from varying backgrounds may experience challenges in access to resources, level of academic and social integration required in a 'student culture' of the university. With regard to gender, Pakistani women may have different educational emotional challenges than men related to the national culture, making the case for specific attention on them (Sain and II 2023).

RESEARCH METHODOLOGY

The researchers employed quantitative correlational research to examine the mediating role of emotional intelligence in the relationship of psychological well-being and academic achievement among university students in Pakistan. A

sample of 350 undergraduate students was selected through stratified random sampling from three major universities in Punjab, Pakistan. For the purpose of data collection, three standardized tools were utilized: Ryff's Psychological Well-Being Scale, which assesses psychological well-being in six dimensions, the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF) for emotional intelligence, and students' cumulative grade point averages (CGPA) for academic achievement. The researchers ensured voluntary participation, with informed consent obtained from all respondents, by distributing the questionnaires in both online and face-to-face settings. Using SPSS for data analysis, the researchers calculated descriptive statistics to gain an overall understanding of the variables, employed Pearson correlation coefficients to test inter-variable relationships, and applied Baron and Kenny mediation analysis and the Sobel test to examine emotional intelligence's mediating effect. The direct and indirect effects assessed through hierarchical regression analysis also confirmed the mediation model. The study design adhered to ethical principles by assuring confidentiality, and anonymity, the right to withdraw, and by obtaining data collection consent from the relevant authorities of the participating universities.

RESULTS AND DATA ANALYSIS

The data analysis commenced with preliminary screening to ensure data quality and appropriateness for statistical procedures. Out of 350 distributed questionnaires, 342 were returned, yielding a response rate of 97.7%. After screening for missing data and outliers, 335 questionnaires were retained for final analysis. The sample comprised 182 female students (54.3%) and 153 male students (45.7%), with ages ranging from 18 to 24 years and a mean age of 20.4 years. Participants represented various academic disciplines including social sciences, natural sciences, engineering, and business studies, ensuring diversity in academic experiences and environmental contexts.

Table 1: Demographic Characteristics of Participants (N=335)

Characteristic	Category	Frequency	Percentage
Gender	Male	153	45.7%
	Female	182	54.3%
Age Range	18-20 years	156	46.6%
	21-22 years	128	38.2%
	23-24 years	51	15.2%
Academic Year	First Year	89	26.6%
	Second Year	102	30.4%
	Third Year	87	26.0%
	Fourth Year	57	17.0%
Field of Study	Social Sciences	98	29.3%
	Natural Sciences	82	24.5%
	Engineering	91	27.2%
	Business Studies	64	19.1%

Table 1 presents the demographic distribution of study participants across various categories. The sample demonstrated relatively balanced gender representation with a slight female majority, consistent with increasing female enrollment in Pakistani universities. Age distribution showed concentration in the traditional undergraduate range, with nearly half the participants in the 18-20 age bracket, reflecting typical entry ages for university education

in Pakistan. Academic year distribution was relatively uniform across the four years, though fourth-year students were slightly underrepresented, possibly due to their engagement in final projects and job search activities. Field of study distribution revealed representation across major academic domains, with social sciences having the highest representation followed by engineering, natural sciences, and business studies, providing diversity in academic experiences and disciplinary cultures.

Table 2: Descriptive Statistics for Main Study Variables (N=335)

Variable	Mean	SD	Minimum	Maximum	Skewness	Kurtosis
Psychological Well-being	4.21	0.68	2.33	5.89	-0.18	-0.34
Emotional Intelligence	4.52	0.71	2.45	6.12	-0.24	-0.29
Academic Achievement (CGPA)	3.14	0.52	1.87	4.00	-0.31	-0.41

Table 2 displays descriptive statistics for the three primary variables examined in this study. Psychological well-being scores demonstrated a mean of 4.21 on a seven-point scale, indicating moderately high levels of well-being among participants with reasonable variability as evidenced by the standard deviation. The range of scores from minimum to maximum suggested adequate distribution across the scale continuum. Emotional intelligence exhibited a slightly higher mean of 4.52, suggesting that participants generally perceived themselves as possessing moderate to high emotional competencies. Academic achievement, measured through CGPA on a four-point scale, showed a mean of 3.14, representing above-average academic performance typical of university samples where lower-performing students may be less likely to participate in research. Skewness and kurtosis values for all variables fell within acceptable ranges, indicating approximately normal distributions suitable for parametric statistical analyses.

Table 3: Reliability Analysis for Study Instruments (N=335)

Instrument	Number of Items	Cronbach's Alpha	Mean Inter-Item Correlation
Ryff's Psychological Well-Being Scale	42	0.89	0.38
TEIQue-SF	30	0.87	0.34
Overall Scale Reliability	72	0.91	0.36

Table 3 presents reliability coefficients for the measurement instruments employed in this study. The Ryff's Psychological Well-Being Scale demonstrated excellent internal consistency with a Cronbach's alpha of 0.89, exceeding the conventional threshold of 0.70 for acceptable reliability in psychological research. The Trait Emotional Intelligence Questionnaire-Short Form similarly exhibited strong reliability with an alpha coefficient of 0.87, indicating that items consistently measured the emotional intelligence construct. Mean inter-item correlations for both instruments fell within the optimal range, suggesting that items were sufficiently related to measure common constructs while maintaining adequate distinctiveness to avoid redundancy. The overall scale reliability across all questionnaire items reached 0.91, demonstrating excellent psychometric properties and supporting confidence in the validity and consistency of measurements obtained.

Table 4: Pearson Correlation Matrix for Study Variables (N=335)

Variable	1	2	3
1. Psychological Well-being	1		
2. Emotional Intelligence	0.624**	1	
3. Academic Achievement	0.487**	0.551**	1

**p < 0.01

Table 4 illustrates the bivariate correlations among psychological well-being, emotional intelligence, and academic achievement. All three variables demonstrated statistically significant positive correlations at the 0.01 level, supporting the theoretical proposition that these constructs are meaningfully related. The correlation between psychological well-being and emotional intelligence was substantial at 0.624, suggesting that students experiencing higher psychological well-being tended to possess enhanced emotional competencies. Psychological well-being correlated moderately with academic achievement at 0.487, indicating that students with better psychological functioning achieved higher academic grades. Notably, emotional intelligence demonstrated the strongest correlation with academic achievement

at 0.551, exceeding the correlation between psychological well-being and achievement. This pattern of correlations provided initial support for the hypothesized mediating role of emotional intelligence, as the mediator showed strong relationships with both the independent variable and the dependent variable.

Table 5: Regression Analysis - Psychological Well-being Predicting Academic Achievement (N=335)

Model	B	SE	β	t	p	R^2	Adjusted R^2
Constant	1.275	0.182	-	7.01	<0.001	0.237	0.235
Psychological Well-being	0.443	0.042	0.487	10.55	<0.001		

Table 5 presents the results of simple linear regression examining psychological well-being as a predictor of academic achievement, representing the first step in Baron and Kenny's mediation analysis framework. The regression model proved statistically significant and explained approximately 23.7% of variance in academic achievement. The positive regression coefficient indicated that each unit increase in psychological well-being corresponded to a 0.443-point increase in CGPA, holding constant other factors. The standardized beta coefficient of 0.487 matched the correlation coefficient from Table 4, confirming the direct relationship between these variables. The highly significant p-value and robust t-statistic provided strong evidence that psychological well-being meaningfully predicted academic achievement in this sample. This significant relationship satisfied the first condition for mediation analysis, establishing that the independent variable significantly influenced the dependent variable before introducing the mediator.

Table 6: Regression Analysis - Psychological Well-being Predicting Emotional Intelligence (N=335)

Model	B	SE	β	t	p	R^2	Adjusted R^2
Constant	1.384	0.201	-	6.88	<0.001	0.389	0.387
Psychological Well-being	0.745	0.046	0.624	16.20	<0.001		

Table 6 displays regression analysis results examining psychological well-being as a predictor of emotional intelligence, representing the second step in mediation testing. The model achieved statistical significance and accounted for 38.9% of variance in emotional intelligence, indicating that psychological well-being substantially influenced emotional competencies. The regression coefficient revealed that each unit increase in psychological well-being predicted a 0.745-point increase in emotional intelligence scores. The standardized coefficient of 0.624 demonstrated a strong positive relationship, suggesting that students with higher psychological well-being consistently reported enhanced emotional intelligence. The significant p-value and large t-statistic confirmed the robustness of this relationship. This finding satisfied the second condition for mediation by establishing that the independent variable significantly predicted the proposed mediator, supporting the theoretical pathway through which psychological well-being might influence academic achievement.

Table 7: Hierarchical Regression Analysis - Testing Mediation Effect (N=335)

Model	Predictor	B	SE	β	t	p	R^2	ΔR^2
Step 1	Constant	1.275	0.182	-	7.01	<0.001	0.237	-
	Psychological Well-being	0.443	0.042	0.487	10.55	<0.001		
Step 2	Constant	0.523	0.196	-	2.67	0.008	0.341	0.104
	Psychological Well-being	0.201	0.045	0.221	4.47	<0.001		
	Emotional Intelligence	0.325	0.036	0.426	9.03	<0.001		

Table 7 presents hierarchical regression analysis results testing the mediating effect of emotional intelligence on the relationship between psychological well-being and academic achievement. In Step 1, psychological well-being alone predicted 23.7% of variance in academic achievement, replicating results from Table 5. Step 2 introduced emotional intelligence as an additional predictor, resulting in a significant increase in explained variance to 34.1%, representing a substantial improvement of 10.4 percentage points. Critically, the regression coefficient for psychological well-being decreased from 0.443 to 0.201 when emotional intelligence entered the model, while remaining statistically significant. This pattern indicated partial mediation, suggesting that emotional intelligence accounted for a substantial portion of the relationship between psychological well-being and academic achievement, though a direct effect persisted. The standardized beta coefficient for psychological well-being decreased from 0.487 to 0.221, demonstrating that approximately 55% of the direct effect was explained through the mediating pathway of emotional intelligence.

Table 8: Sobel Test for Mediation Significance (N=335)

Pathway	Coefficient	SE	Z-score	p-value	95% CI Lower	95% CI Upper
Indirect Effect (a×b)	0.242	0.034	7.12	<0.001	0.175	0.309
Direct Effect (c')	0.201	0.045	4.47	<0.001	0.113	0.289
Total Effect (c)	0.443	0.042	10.55	<0.001	0.361	0.525

Table 8 presents the Sobel test results formally evaluating the significance of the mediating pathway through emotional intelligence. The indirect effect, calculated as the product of the path from psychological well-being to emotional intelligence and the path from emotional intelligence to academic achievement, yielded a coefficient of 0.242 with a highly significant z-score of 7.12. This confirmed that the indirect pathway through emotional intelligence significantly contributed to the relationship between psychological well-being and academic achievement. The 95% confidence interval for the indirect effect did not include zero, providing additional evidence of significant mediation. The direct effect of psychological well-being on academic achievement, after controlling for emotional intelligence, remained significant at 0.201, confirming partial rather than complete mediation. The total effect of 0.443 represented the combined direct and indirect pathways. These results demonstrated that emotional intelligence explained approximately 54.6% of the total effect of psychological well-being on academic achievement.

Table 9: Gender Differences in Study Variables (N=335)

Variable	Males (n=153)	Females (n=182)	t-value	p-value	Cohen's d
	M (SD)	M (SD)			
Psychological Well-being	4.18 (0.71)	4.24 (0.66)	-0.79	0.431	0.09
Emotional Intelligence	4.38 (0.74)	4.63 (0.67)	-3.28	0.001	0.36
Academic Achievement	3.08 (0.54)	3.19 (0.50)	-1.94	0.053	0.21

Table 9 presents comparative analysis of gender differences across the three main study variables. Independent samples t-tests revealed no significant difference between male and female students in psychological well-being scores, with both groups reporting similar levels of positive psychological functioning. However, female students demonstrated significantly higher emotional intelligence compared to their male counterparts, with a mean difference of 0.25 points and a moderate effect size. This finding aligned with broader literature suggesting gender differences in emotional competencies, potentially reflecting socialization patterns that encourage emotional awareness and expression among females. Academic achievement showed a marginally non-significant difference, with female students exhibiting slightly higher mean CGPA, though this difference did not reach conventional statistical significance thresholds. The pattern suggested that gender-specific factors might influence the development and application of emotional competencies, though the mediating role of emotional intelligence appeared relevant for both male and female students in translating psychological well-being into academic success.

Table 10: Correlation Analysis by Academic Field (N=335)

Field of Study	PWB-EI	PWB-AA	EI-AA	n

Social Sciences	0.643**	0.501**	0.578**	98
Natural Sciences	0.598**	0.462**	0.534**	82
Engineering	0.634**	0.479**	0.562**	91
Business Studies	0.621**	0.511**	0.549**	64

PWB = Psychological Well-being, EI = Emotional Intelligence, AA = Academic Achievement **p < 0.01

Table 10 presents correlation analyses conducted separately for each academic field to examine whether relationships among variables differed across disciplines. Results demonstrated consistent patterns across all four fields of study, with all correlations remaining positive and statistically significant at the 0.01 level. The relationship between psychological well-being and emotional intelligence ranged from 0.598 in natural sciences to 0.643 in social sciences, indicating strong associations regardless of academic discipline. Correlations between psychological well-being and academic achievement showed more modest variation across fields, ranging from 0.462 to 0.511, suggesting relatively consistent importance of well-being for academic success. The relationship between emotional intelligence and academic achievement exhibited similar stability across disciplines, ranging from 0.534 to 0.578. These findings suggested that the mediating role of emotional intelligence in linking psychological well-being to academic achievement operated similarly across diverse academic contexts, supporting the generalizability of the mediation model within the university setting studied.

Table 11: Summary of Mediation Analysis Results

Mediation Criteria	Result	Interpretation
Path c (PWB → AA)	$\beta = 0.487$, $p < 0.001$	Significant direct relationship
Path a (PWB → EI)	$\beta = 0.624$, $p < 0.001$	IV significantly predicts mediator
Path b (EI → AA, controlling PWB)	$\beta = 0.426$, $p < 0.001$	Mediator significantly predicts DV
Path c' (PWB → AA, controlling EI)	$\beta = 0.221$, $p < 0.001$	Direct effect remains significant
Indirect Effect	$\beta = 0.242$, $p < 0.001$	Mediation effect significant
Type of Mediation	Partial	Both direct and indirect paths significant
Variance Explained by Mediation	54.6%	Proportion of effect through mediator

PWB = Psychological Well-being, EI = Emotional Intelligence, AA = Academic Achievement, IV = Independent Variable, DV = Dependent Variable

Table 11 provides a comprehensive summary of the mediation analysis results, synthesizing findings from previous tables to present a complete picture of the mediating role of emotional intelligence. All four conditions for establishing mediation according to Baron and Kenny's framework were satisfied: the independent variable significantly predicted the dependent variable; the independent variable significantly predicted the mediator; the mediator significantly predicted the dependent variable while controlling for the independent variable; and the direct effect of the independent variable on the dependent variable decreased when the mediator was included. The persistence of a significant direct effect alongside the significant indirect effect confirmed partial mediation, indicating that emotional intelligence explained substantial but not complete variance in the relationship between psychological well-being and academic achievement. The finding that 54.6% of the total effect operated through the mediating pathway highlighted the practical importance of emotional intelligence as a mechanism linking psychological functioning to academic outcomes.

DISCUSSION

Results from this study convincingly indicate the mediating role of emotional intelligence between psychological well-being and academic achievement among university students in Pakistan. The positive correlations of the three variables, and the relationships among them in the three variables, were consistent with prior studies and within various cultural contexts. The relationship between psychological well-being and academic achievement was indicative of students with positive psychological functioning attaining better academic outcomes, which is consistent with studies that advocate the role of mental health in educational success. The particularly strong relationship between emotional intelligence and academic achievement implies that emotional skills were vital in managing university challenges and learning optimally. Findings from the mediation analysis that emotional intelligence explained roughly 55% of the

relationship between psychological well-being and academic performance imply that much of the impact psychological well-being is said to have on academic achievement operates through emotional enhancement capabilities, highlighting the importance of fostering emotional intelligence.

The discovery of patterns in partial mediation had its own theoretical and practical relevance. The direct effect on academic achievement remained significant even when the effect of emotional intelligence was controlled, indicating that psychological well-being also operated through other mechanisms. In addition to emotional intelligence, other mechanisms contributing to the psychological well-being effect on academic achievement may include positive psycho states and other factors, such as stronger cognitive functioning, greater motivation and goal-directed behavior, physical health that enables sustained effort toward learning, and learning strategies that bolster information processing during learning. The indirect effect of emotional intelligence on academic achievement was also considerable. Psychologically healthier students developed emotional intelligence skills that stream helped to direct their energy toward the collaborative learning effort and strengthened interpersonal bonds that collaborative learning. In addition, those skills helped students to regulate emotions, sustain focus and persist on the task, adapt in response to academically stressful situations, and cope with challenges and setbacks of learning.

The importance of these relationships in the context of universities in Pakistan was bolstered by the relative consistency of findings across various fields of study and the mediation patterns exhibiting minimal gender differences. Nonetheless, considering the comparatively higher emotional intelligence levels noted in female students, different gendered socialization practices might be at play, which should be taken into account when designing these interventions. These findings, however, pose significant opportunities for improving student success and well-being in Pakistani universities. These institutions should understand that the provision of psychological support to students should qualify as an investment in their mental health and educational outcomes. The findings provided the rationale for the investment of resources in holistic student support programs that integrate psychological assistance and emotional skills training.

CONCLUSION

This study illustrated the role emotional intelligence plays as a significant partial mediator between psychological well-being and academic achievement in Pakistani university students. Students with higher psychological well-being and emotional intelligence also higher performances in studies. Within the proposed model, emotional intelligence accounted for 55% of the effect psychological well-being exerts on academic achievement, underscoring its relevance as a connector of mental health to educational achievement. The present study has increased the literature on the importance of non-cognitive variables on academic performance and extended it to higher education in Pakistan, a context where this type of research has been scarce.

These multiple facets (psychological, emotional, academic) of a university student's life need to be understood in relation to each other. Academic success need not be viewed only in relation to a student's cognitive abilities and study practices; an expansive understanding of academic success needs to include psychological and emotional factors as well. The partial mediation results indicate that other pathways, alongside emotional intelligence, may bridge the gap between psychological well-being and the other academic outcomes examined. Given the competitive context of Pakistani universities and the limited student support services, these findings assist in formulating evidence-based integrated psychological interventions that address emotional competency. The study goes beyond identifying relationships between variables to describing potential areas for the improvement of educational practices.

The need for culturally grounded psychological educational framework is emphasized by the findings of the relationships as well as documented evidence internationally. The completion of this research in a Pakistani context offers grounded evidence for action within the national higher education system. Future efforts in this area should continue to advance these findings in order to develop and implement focused interventions, explore longitudinal designs, and identify other potential mediating and moderating variables that may clarify the intricate relationships between psychological factors and student achievement.

RECOMMENDATIONS

The findings of this research suggest the following actions for educational stakeholders. Universities need to create comprehensive student support initiatives that combine psychological counseling with emotional intelligence support. Academic departments ought to include the development of emotional intelligence in curriculum design, especially during first-year orientation programs, as students encounter psychosocial adjustment problems. Faculty members must be trained in professional development to recognize signs of psychological distress and emotionally safe learning environments that foster emotional and cognitive learning. University administrators must sufficiently fund mental health services and campuswide psychological wellness initiatives that include peer support programs, distress management, and wellness activities. Counsellorship in support of emotional and psychological wellness should be incorporated into higher education policymaking as a basic infrastructure component. Longitudinal studies capturing

the influence of psychological wellness and emotional intelligence on academic outcomes and gap-filling intervention studies drawing experimental designs, along with the investigation of additional mediating variables such as social support and coping, and the moderating variables of socioeconomic status, family structure, and school characteristics should be prioritized in future studies.

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