

HAPPINESS AND ACADEMIC ACHIEVEMENT AMONG UNIVERSITY STUDENTS IN PAKISTAN: A HIERARCHICAL REGRESSION ANALYSIS

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ABSTRACT

Happiness is a central component of subjective well-being and an important construct within positive psychology. Although student well-being has increasingly been linked with educational functioning, evidence from Pakistani higher education remains limited. This study examined the relationship between happiness and academic achievement among university students and determined whether happiness accounted for additional variance in academic performance beyond demographic and academic characteristics. A cross-sectional correlational study was conducted with 320 undergraduate students (144 males and 176 females) selected through stratified random sampling from five academic disciplines at Health Services Academy Islamabad, Pakistan. Happiness was assessed using the Oxford Happiness Questionnaire, while academic achievement was measured through cumulative grade point average (CGPA) obtained from university records. Data were analyzed using descriptive statistics, independent-samples *t* tests, Pearson correlations, one-way ANOVA, and hierarchical multiple regression. Happiness was moderately and positively associated with academic achievement, $r(318) = .42, p < .001$, 95% CI [.32, .51]. After controlling for age, gender, and academic discipline, happiness remained significantly associated with CGPA ($\beta = .37, p < .001$) and accounted for an additional 13% of variance ($\Delta R^2 = .13, p < .001$). Female students reported higher happiness and CGPA than males, while discipline-related differences in happiness were small. Happiness showed a meaningful association with academic achievement beyond selected demographic and academic factors. The findings highlight the relevance of student well-being within positive psychology and higher-education support initiatives, while the cross-sectional design does not permit causal conclusions.

1. INTRODUCTION

Academic achievement is an important indicator of students' educational progress and adjustment in higher education. Although cognitive ability contributes to academic performance, students' outcomes are also shaped by psychological, emotional, motivational, and contextual factors (Richardson et al., 2012; Mega et al., 2014). Within this broader perspective, student well-being has received growing attention because of its possible links with engagement, persistence, and learning. Happiness, in particular, has been examined as a positive psychological resource associated with educational functioning (Datu, 2018; Seligman, 2018). Happiness is commonly understood as a component of subjective well-being that includes positive affect, lower negative affect, and overall life satisfaction (Diener et al., 2018). In university settings, students' level of happiness may be related to

how they manage academic demands, sustain motivation, interact with others, and respond to stress. Previous research has linked psychological well-being with more adaptive academic behaviors and stronger engagement (Bücker et al., 2018; Datu, 2018; Howell, 2009). These findings do not imply that happiness directly causes better academic performance, but they suggest that well-being may be relevant to how students function within academic environments.

One theoretical explanation is provided by the Broaden-and-Build Theory of Positive Emotions (Fredrickson, 2001, 2013). The theory proposes that positive emotions can broaden patterns of thought and action and, over time, contribute to psychological and social resources. In educational contexts, such processes may support concentration, persistence, coping, and constructive involvement in academic tasks (Fredrickson & Joiner, 2018). A related perspective comes from Subjective Well-being Theory, which focuses on how individuals experience and evaluate their lives (Diener et al., 2018). From this view, students with higher well-being may approach academic challenges with greater emotional balance and self-regulation (Howell, 2009). Evidence from different cultural settings also suggests that well-being is associated with achievement-related functioning, although the strength of these relationships varies across samples and contexts (Datu, 2018; Howell, 2009). The university period is also marked by academic pressure, adjustment demands, and mental health concerns, making student well-being an important area of study (American College Health Association, 2024). While international evidence generally suggests a positive relationship between happiness and academic achievement, findings are not fully consistent across educational and cultural settings (Bücker et al., 2018; Howell, 2009).

Recent research from Pakistan has also examined well-being alongside academic functioning in university students. Zia et al. (2025), in a correlational study of students from universities in Punjab and Khyber Pakhtunkhwa, reported positive associations among subjective happiness, optimism, and academic achievement. Zahid et al. (2025) examined life satisfaction and academic performance together with stress and perceived social support among university students in Islamabad and Rawalpindi, indicating that these variables are related within a broader psychosocial context. More recently, Shabbir et al. (2026) found that examination pressure and media use were associated with both psychological well-being and academic achievement among university students in Lahore. These findings provide recent Pakistani evidence that psychological well-being and academic functioning may be related, while the pattern appears to vary according to the variables and educational context examined. Despite this emerging evidence, research specifically examining happiness in relation to objectively recorded academic achievement remains limited in Pakistan. Local sociocultural and educational conditions may shape both well-being and academic performance. Examining these factors together may provide a more contextualized understanding of university students' academic and psychological experiences without assuming a causal relationship between them. The present cross-sectional correlational study therefore examines the relationship between happiness and academic achievement among undergraduate students at Health Services Academy, Islamabad, Pakistan. It also explores gender differences in happiness and academic achievement and considers variation across academic disciplines. Guided by the Broaden-and-Build Theory (Fredrickson, 2001, 2013) and Subjective Well-being Theory (Diener et al., 2018), the study focuses on association rather than causation. The conceptual relationships among the study variables and hypotheses are presented in Figure 1.

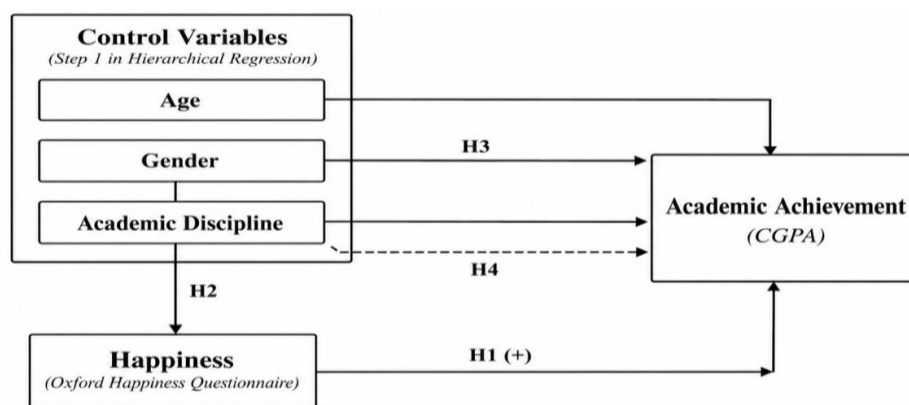


Figure 1 show conceptual framework of the relationship between happiness and academic achievement.

Hypotheses

H1: Happiness will be positively associated with academic achievement among university students.

H2: Happiness will differ significantly by gender among university students.

H3: Academic achievement will differ significantly by gender among university students.

H4: Happiness will account for significant additional variance in academic achievement after adjustment for age, gender, and academic discipline.

II. METHOD

Participants

The study was conducted at Health Services Academy, Islamabad, Pakistan. The target population included undergraduate students enrolled in Management Sciences, Pharm-D, Psychology, Speech-Language Pathology and Audiology, and Computer Sciences. Institutional records indicated a combined population of approximately 415 students across these disciplines. The final sample comprised 320 students, including 144 males (45.0%) and 176 females (55.0%), aged 18–26 years ($M = 21.34$, $SD = 1.87$). Students from different academic years were eligible to participate. This study used a quantitative, cross-sectional correlational design to examine the association between happiness and academic achievement among undergraduate students. The design was appropriate because the study focused on naturally occurring differences rather than experimental manipulation and also assessed whether happiness accounted for additional variance in academic achievement after demographic and academic characteristics were considered. Reporting was guided by the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) recommendations for cross-sectional research (von Elm et al., 2007).

Measures

A brief demographic form recorded age, gender, and academic discipline. These variables were later entered as covariates in the hierarchical regression analysis. [I] Happiness was measured using the Oxford Happiness Questionnaire (OHQ; Hills & Argyle, 2002), a 29-item self-report measure of happiness and psychological well-being. Items are rated on a six-point Likert-type scale from 1 (*strongly disagree*) to 6 (*strongly agree*). The original English-language version was used. Negatively worded items were reverse scored according to the standard procedure, with higher total scores indicating greater happiness. The OHQ has demonstrated satisfactory psychometric properties in previous research (Hills & Argyle, 2002). In the present sample, it showed high internal consistency (Cronbach's $\alpha = .91$). [II] Academic achievement was measured using cumulative grade point average (CGPA) obtained from university academic records with participants' permission. Scores ranged from 0.00 to 4.00, with higher values indicating stronger academic performance.

Procedure

Ethical approval was obtained from the Institutional Review Board of Health Services Academy, Islamabad, Pakistan, before data collection. The study followed institutional requirements and the Declaration of Helsinki. Participants received information about study procedures, voluntary participation, confidentiality, and withdrawal rights, and provided written informed consent. After departmental permission, eligible students completed the demographic form and OHQ during academic sessions. With consent, CGPA records were obtained and linked to questionnaire responses using anonymized identification codes to protect participant confidentiality throughout analysis. Data were analyzed using IBM SPSS Statistics Version 29. Before analysis, data were screened for missing values, outliers, distributional characteristics, and relevant statistical assumptions. Less than 2% of retained data were missing and were handled using expectation-maximization procedures. Descriptive statistics summarized participant characteristics and study variables, while Cronbach's α assessed OHQ internal consistency. Pearson correlations examined the association between happiness and academic achievement, with separate correlations for males and females. Independent-samples t tests assessed gender differences in happiness and CGPA. One-way ANOVA, followed by Tukey post hoc tests where appropriate, examined happiness across academic disciplines. Hierarchical multiple regression tested whether happiness accounted for additional variance in CGPA. Age, gender, and academic discipline were entered in Step 1, with gender coded 0 = male and 1 = female and Computer Sciences as the reference category. Happiness was entered in Step 2. Model evaluation used R^2 , adjusted R^2 , ΔR^2 , and F -change. Regression results included B , standard errors, β , t , p , and 95% confidence intervals. Effect sizes

included Cohen’s *d*, Pearson’s *r*, and η^2 with magnitude interpreted using conventional effect-size guidelines (Cohen, 1988). Statistical significance was set at two-tailed $\alpha = .05$.

III.RESULTS

Data were screened for missing values, outliers, distributional characteristics, and relevant assumptions. Less than 2% of retained data were missing and were handled using expectation-maximization procedures. No substantial departures from normality were observed. The Oxford Happiness Questionnaire showed high internal consistency (Cronbach’s $\alpha = .91$). Descriptive statistics are presented in Table 1. The overall mean happiness score was 116.35 (*SD* = 17.86), while the mean cumulative grade point average (CGPA) was 3.08 (*SD* = 0.45). Female students had higher mean scores for both happiness and academic achievement than male students.

Table I: Descriptive Statistics for Happiness and Academic Achievement by Gender

Variables	Male (<i>n</i> = 144) <i>M</i> (<i>SD</i>)	Female (<i>n</i> = 176) <i>M</i> (<i>SD</i>)	Total (<i>n</i> = 320) <i>M</i> (<i>SD</i>)
Happiness	113.42 (18.31)	118.76 (17.24)	116.35 (17.86)
Academic Achievement (CGPA)	2.98 (0.46)	3.17 (0.43)	3.08 (0.45)

Gender Differences in Happiness and Academic Achievement: Independent-samples *t* tests showed that females reported higher happiness than males, *t* (318) = 2.67, *p* = .008, *d* = 0.30, 95% CI [0.08, 0.52], indicating a small effect. Females also had higher academic achievement, *t* (318) = 3.81, *p* < .001, *d* = 0.43, 95% CI [0.21, 0.65], indicating a small-to-moderate effect (Table 2).

Table II: Gender Differences in Happiness and Academic Achievement

Variables	<i>t</i>	<i>df</i>	<i>p</i>	Cohen’s <i>d</i>	95% CI
Happiness	2.67	318	.008	0.30	[0.08, 0.52]
Academic Achievement	3.81	318	< .001	0.43	[0.21, 0.65]

Association Between Happiness and Academic Achievement: Pearson product–moment correlation analysis showed a statistically significant positive association between happiness and academic achievement, *r* (318) = .42, *p* < .001, 95% CI [.32, .51]. The magnitude of the association was moderate, indicating that students with higher happiness scores tended to have higher CGPA scores (Table 3).

Table III: Correlation Between Happiness and Academic Achievement

Variables	1	2
1. Happiness	—	
2. Academic Achievement	.42***	—

****p* < .001

Correlations by Gender: As shown in Table 4, happiness was positively associated with academic achievement among males, *r* (142) = .39, *p* < .001, 95% CI [.24, .52], and females, *r*(174) = .44, *p* < .001, 95% CI [.31, .55]. The coefficients were similar in magnitude; however, no formal comparison was conducted, so statistical equivalence across gender groups cannot be inferred.

Table IV: Correlations Between Happiness and Academic Achievement by Gender

Gender	<i>r</i>	95% CI	<i>P</i>
Male	.39	[.24, .52]	< .001
Female	.44	[.31, .55]	< .001

Differences in Happiness Across Academic Disciplines: As shown in Table 5, happiness differed significantly across academic disciplines, *F* (4, 315) = 3.42, *p* = .009, $\eta^2 = .04$, indicating a small effect. Tukey post hoc comparisons indicated that Psychology students had significantly higher happiness scores than Computer Sciences students.

Table V: Happiness Scores Across Academic Disciplines

Academic discipline	<i>n</i>	Happiness <i>M</i> (<i>SD</i>)
Management Sciences	58	114.08 (18.31)
Pharm-D	112	116.46 (17.85)
Psychology	61	121.31 (16.68)
Speech-Language Pathology & Audiology	26	121.78 (15.80)
Computer Sciences	63	111.21 (18.00)
Total	320	116.35 17.86)

Hierarchical Regression Analysis of Academic Achievement: As shown in Table 6, hierarchical regression indicated that age, gender, and academic discipline explained 8% of CGPA variance in Step 1, $R^2 = .08$, adjusted $R^2 = .06$, $F(6, 313) = 4.52$, $p < .001$. Adding happiness accounted for an additional 13% of variance, $R^2 = .21$, adjusted $R^2 = .19$, $\Delta R^2 = .13$, $\Delta F(1, 312) = 51.38$, $p < .001$. Happiness remained positively associated with CGPA, $B = 0.010$, $SE = 0.001$, $\beta = .37$, $t = 7.17$, $p < .001$, 95% CI [0.007, 0.013], supporting H4.

Table VI: Hierarchical Multiple Regression Analysis of Academic Achievement (CGPA)

Variables	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>	95% CI for <i>B</i>
Step 1						
Age	-0.01	0.01	-.05	-0.91	.365	[-0.02, 0.01]
Gender	0.16	0.05	.18	3.18	.002	[0.06, 0.26]
Management Sciences	0.04	0.07	.04	0.57	.569	[-0.10, 0.18]
Pharm-D	0.07	0.06	.08	1.17	.243	[-0.05, 0.19]
Psychology	0.14	0.07	.13	2.02	.044	[0.004, 0.28]
Speech-Language Pathology & Audiology	0.18	0.09	.11	2.00	.046	[0.003, 0.36]
Step 2						
Age	-0.01	0.01	-.04	-0.76	.448	[-0.02, 0.01]
Gender	0.12	0.04	.14	2.75	.006	[0.03, 0.21]
Management Sciences	0.03	0.06	.03	0.50	.617	[-0.09, 0.15]
Pharm-D	0.05	0.05	.06	1.00	.318	[-0.05, 0.15]
Psychology	0.10	0.06	.09	1.67	.096	[-0.02, 0.22]
Speech-Language Pathology & Audiology	0.14	0.08	.09	1.75	.081	[-0.02, 0.30]
Happiness	0.010	0.001	.37	7.17	< .001	[0.007, 0.013]

Note. *N* = 320. CGPA = cumulative grade point average. Gender was coded 0 = male and 1 = female. Academic discipline was dummy coded with Computer Sciences as the reference category. *B* = unstandardized coefficient; *SE B* = standard error; β = standardized coefficient; CI = confidence interval.

Model Summary: Step 1: $R^2 = .08$, adjusted $R^2 = .06$, $F(6, 313) = 4.52$, $p < .001$. Step 2: $R^2 = .21$, adjusted $R^2 = .19$, $\Delta R^2 = .13$, $\Delta F(1, 312) = 51.38$, $p < .001$.

IV.DISCUSSION

The present study examined the association between happiness and academic achievement among undergraduate students in Pakistan. Happiness was positively related to CGPA, and this association remained statistically significant after age, gender, and academic discipline were taken into account (Table 6). Female students reported higher happiness and academic achievement than male students (Table 2), while happiness also varied modestly across academic disciplines (Table 5). The overall correlation between happiness and CGPA was moderate (Table 3). Taken together, the findings suggest that happiness is related to academic functioning, although the cross-sectional design does not establish the direction of this relationship. The positive association between happiness and academic achievement is consistent with earlier work on student well-being. B cker et al. (2018), in a meta-analysis of 47 studies involving 38,946 participants, reported a positive relationship between subjective well-being and academic achievement, while also showing that the two constructs are not interchangeable. Howell (2009) similarly found that flourishing among undergraduate students was associated with higher self-reported grades and more adaptive achievement-related characteristics, including greater self-control and mastery-oriented goals.

Datu (2018) also reported positive associations between flourishing, academic achievement, and engagement among Filipino students. The present study follows the same general pattern while using university-recorded CGPA rather than relying only on students' perceptions of their academic performance.

The findings are also broadly consistent with evidence from Pakistan. Bukhari and Khanam (2017), in a cross-sectional study of 300 university students in Karachi, found that academic performance was positively related to subjective happiness and life satisfaction and negatively related to depression. Although the correlation reported in that study was smaller than the one observed here, the direction was similar. Differences in effect size across studies may reflect variation in samples, measures of well-being, institutional environments, academic disciplines, or approaches to assessing academic performance. These contextual differences are especially relevant when findings from positive psychology research are considered across different educational settings. More recent Pakistani findings provide additional context. Zia et al. (2025) reported positive associations among subjective happiness, optimism, and academic achievement in university students from Punjab and Khyber Pakhtunkhwa. Zahid et al. (2025) also examined academic performance in relation to life satisfaction, stress, and perceived social support among university students in Islamabad and Rawalpindi, suggesting that academic functioning may be related to a wider set of psychosocial factors. Similarly, Shabbir et al. (2026) reported associations between psychological well-being and academic achievement within a broader examination-pressure and media-use model among university students in Lahore. A 2026 analysis of data from students at three public universities in Punjab also found that psychological well-being and mental-health indicators were more consistently related to students' perceptions of academic performance than to objective grade categories (Chaudhry et al., 2026). These findings broadly support examining academic functioning alongside student well-being, while also showing that the strength and form of the relationship can differ across samples and measures.

One way to understand the observed relationship is through the Broaden-and-Build Theory of Positive Emotions (Fredrickson, 2001, 2013). The theory proposes that positive emotions can broaden patterns of thought and action and, over time, contribute to psychological and social resources. In academic settings, these resources may be relevant to persistence, coping, problem solving, and engagement with demanding tasks. Fredrickson and Joiner (2018) further described reciprocal processes in which positive emotions and psychological resources may reinforce one another. This provides a plausible framework for the present findings, but the study did not directly measure motivation, self-regulation, coping, or academic engagement. These processes should therefore be viewed as possible explanations rather than mechanisms demonstrated by the current data. A related interpretation comes from the wider literature on subjective well-being. Diener et al. (2018) describe subjective well-being in terms of how individuals experience and evaluate their lives, including positive affect and life satisfaction. Students with higher well-being may differ in how they respond to academic pressure, organize their work, maintain relationships, or interpret setbacks. Howell (2009) and Datu (2018) likewise linked well-being with achievement-relevant characteristics and behaviors. The present results fit within this broader pattern, but they should not be taken to show that happiness directly produces higher academic performance. Academic success itself may contribute to positive affect and satisfaction, and the relationship may also operate in both directions.

The hierarchical regression helps place this association in context. Age, gender, and academic discipline accounted for 8% of the variance in CGPA, and the addition of happiness increased the explained variance to 21%, representing an additional 13% (Table 6). Happiness therefore remained associated with academic achievement after the selected demographic and academic characteristics were considered. At the same time, most of the variance in CGPA remained unexplained. Academic performance is likely to reflect several factors that were not measured in this study, including academic motivation, self-efficacy, personality, socioeconomic circumstances, family support, stress, learning strategies, and physical or mental health. This wider set of influences is important when interpreting the contribution of happiness within the present model. Gender differences were observed in both happiness and academic achievement (Table 2). Female students reported higher happiness, although the effect was small, and also had higher CGPA, with a small-to-moderate effect. The academic-achievement finding is consistent with Voyer and Voyer's (2014) meta-analysis of 369 samples, which reported a small overall female advantage in school marks across educational levels and subject areas. However, the present study was not designed to explain why these differences occurred. Study habits, motivation, social support, expectations, or other contextual factors may be relevant, but these were not assessed and should not be inferred from the observed group differences alone.

Happiness was positively correlated with CGPA among both male and female students, with coefficients of .39 and .44, respectively, compared with .42 in the full sample (Table 4). These values indicate a broadly similar descriptive pattern across gender groups. However, because the study did not formally test whether the two correlations differed, the results should not be interpreted as evidence that the association is statistically equivalent for males and females. Future studies could examine gender directly as a moderator and test whether the strength of the happiness–achievement relationship differs across groups. Small differences in happiness were also observed across academic disciplines (Table 5). Students in Psychology and Speech-Language Pathology and Audiology reported higher happiness than students in Computer Sciences, although the overall effect was small ($\eta^2 = .04$). Such differences may reflect workload, curriculum structure, learning environment, peer interaction, or students' fit with their chosen fields. These interpretations remain tentative because the discipline groups were unequal in size and the Speech-Language Pathology and Audiology group was relatively small. Replication with larger and more balanced groups would help determine whether these differences are stable or specific to the present sample. The Pakistani higher-education context is important for interpreting these findings because much of the positive psychology literature has emerged from social, cultural, and educational settings that differ from Pakistan. Existing Pakistani studies have identified associations between student well-being and academic functioning across diverse university samples and psychosocial factors (Bukhari & Khanam, 2017; Zia et al., 2025; Zahid et al., 2025; Shabbir et al., 2026). The present study extends this evidence by using a validated measure of happiness, university-recorded CGPA, and statistical adjustment for selected demographic and academic characteristics. However, because the sample was drawn from a single institution, the findings should be interpreted within that context and generalized to the wider Pakistani university population with caution.

Theoretical Contributions

The study contributes to the literature by examining happiness and academic achievement within a Pakistani university context, where evidence remains relatively limited. The results are broadly consistent with the Broaden-and-Build Theory of Positive Emotions (Fredrickson, 2001, 2013), particularly the idea that positive emotional experiences may be associated with psychological and social resources relevant to persistence and academic engagement. However, because these mechanisms were not measured directly, the study supports theoretical consistency rather than mechanism testing. The findings are also compatible with the broader perspective on subjective well-being described by Diener et al. (2018). Happiness remained associated with academic achievement after age, gender, and academic discipline were controlled, suggesting that the relationship was not fully accounted for by these characteristics. Happiness accounted for an additional 13% of variance within the model, while substantial variance in academic achievement remained unaccounted for by the variables included in the analysis. In this sense, the results align with previous work indicating that well-being and academic functioning are related but distinct constructs (Bücker et al., 2018; Datu, 2018; Howell, 2009). The study therefore places happiness alongside, rather than above, the broader set of factors involved in academic performance.

Limitation and Suggestions

A key strength of the study was the use of CGPA obtained from university records rather than student self-report, reducing recall and self-report bias in the outcome measure. The sample also included students from five academic disciplines, allowing variation across fields to be considered. The Oxford Happiness Questionnaire showed high internal consistency in the present sample (Cronbach's $\alpha = .91$). In addition, hierarchical regression allowed the incremental association of happiness with academic achievement to be examined after age, gender, and academic discipline were entered first. Reporting effect sizes and 95% confidence intervals also provided information about the magnitude and precision of the findings beyond statistical significance alone. Several limitations should be considered. First, the cross-sectional design does not permit causal or directional conclusions. Higher happiness may be related to better academic performance, better academic performance may contribute to greater happiness, or both may reflect other influences. Second, participants were recruited from a single university, which limits generalizability to other institutions, provinces, or educational systems. Third, happiness was assessed through self-report and may have been influenced by current mood, social desirability, or response style. Fourth, the regression model explained 21% of the variance in CGPA, leaving substantial variability associated with factors not examined here. Finally, the academic-discipline groups were unequal in size, which may have reduced the precision of discipline-specific comparisons.

Practical Implications

The findings suggest that student well-being and academic functioning may be considered together rather than as entirely separate areas of university life. This does not mean that increasing happiness will necessarily improve grades. A more cautious implication is that counseling services, peer-support opportunities, academic advising, and student-engagement initiatives may be useful components of a broader approach to student development. Their effects on academic outcomes should be evaluated rather than assumed. The findings may also be relevant to faculty members and academic advisors who work closely with students. Difficulties with stress, motivation, adjustment, or engagement often overlap with academic concerns, and students may benefit when support systems recognize both aspects of university experience. At an institutional level, student well-being can be included within quality-enhancement and student-support frameworks, while recognizing that the present study does not establish the effectiveness of any particular intervention. Well-being initiatives are therefore better viewed as part of student support rather than as direct strategies for raising CGPA.

Future Research Directions

Future research would benefit from longitudinal designs that examine how happiness and academic achievement change over time. Such studies could help clarify whether higher happiness precedes stronger academic performance, follows academic success, or develops alongside other psychological and contextual influences. Multi-institutional studies involving students from different regions, institutional types, and academic settings in Pakistan would also improve the breadth and generalizability of the evidence. Further work could examine potential mediators and moderators, including academic self-efficacy, motivation, resilience, social support, stress, coping, learning strategies, and academic engagement. These variables may help explain when and how well-being is related to academic functioning. Larger and more balanced samples could also clarify whether the observed differences across academic disciplines are reproducible. Finally, intervention-based and longitudinal studies would be better suited than cross-sectional designs to examine whether changes in student well-being are followed by changes in academic outcomes. Such work could build on the present findings while addressing the limits of cross-sectional evidence.

V. CONCLUSION

Happiness was positively associated with academic achievement after accounting for age, gender, and academic discipline. Female students reported higher happiness and CGPA, while differences across disciplines were small. These findings indicate that well-being relates to academic functioning, although the cross-sectional design does not establish causality. Using university-recorded CGPA strengthened measurement of academic performance. Future longitudinal and multi-institutional studies should examine how happiness and academic achievement develop over time and whether motivation, self-efficacy, resilience, stress, and engagement contribute to this relationship.

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