

Psychological Capital and Academic Engagement as Predictors of Psychological Well-Being in High School Students

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Abstract

Student well-being is a critical factor in academic success and personal development. The study examines the relationship between psychological capital (PsyCap) and academic engagement as predictors of well-being in high school students. Psychological capital, which includes hope, efficacy, resilience, and optimism, plays a significant role in students' ability to cope with academic challenges. Similarly, academic engagement, characterized by vigor, dedication, and absorption, is linked to overall mental health and academic performance. A sample of 142 high school students (85 males, 57 females) of Nizamabad District participated in the study. Standardized questionnaires, including the Psychological Capital Questionnaire (PCQ) PCAS-RRCM and the UWES S-9 Student Version, were used to measure PsyCap, engagement, and psychological well-being. Correlation and regression analyses were conducted to explore these relationships. The results indicate a positive correlation between psychological capital and psychological well-being, as well as between academic engagement and psychological well-being. Additionally, significant gender differences were found in PsyCap and engagement levels. These findings highlight the importance of fostering psychological capital and engagement to enhance student well-being. Future research should explore additional psychological factors influencing student well-being and the effectiveness of interventions aimed at improving PsyCap and academic engagement.

Keywords: *Psychological Capital, Academic Engagement, Student Well-Being, High School Education*

I. Introduction

Student well-being is a crucial determinant of academic success, personal growth, and overall life satisfaction. In the high school setting, students often encounter academic pressures, social challenges, and emotional stressors that can significantly impact their mental health. Psychological capital, which comprises hope, efficacy, resilience, and optimism, plays a vital role in shaping students' ability to navigate these challenges. A student with strong psychological capital is more likely to approach difficulties with a positive mindset, persist through setbacks, and maintain confidence in their academic abilities.

Academic engagement is another essential factor contributing to student well-being. Engaged students demonstrate vigor, dedication, and absorption in their studies, leading to improved academic performance and greater satisfaction with their learning experiences. A high level of engagement is associated with motivation, perseverance, and a sense of accomplishment, all of which contribute to emotional and psychological well-being. Conversely, disengagement can lead to academic burnout, stress, and decreased mental health.

Despite the growing recognition of these factors in higher education research, there is a need to explore their significance among high school students. Understanding the relationship between psychological capital, academic engagement, and well-being can provide valuable insights for educators, counselors, and policymakers to implement strategies that foster a positive academic environment. The study aims to examine these relationships and determine whether gender differences exist in psychological capital, academic engagement, and well-being. By doing so, it contributes to the growing body of research on student mental health and offers practical implications for improving educational experiences and emotional resilience in high school students.

II. Literature Review

Chen, Zhang, and Liu (2022) highlights the positive correlation between Psychological Capital (PsyCap) and academic engagement among high school students. PsyCap, comprising self-efficacy, hope, optimism, and resilience, enhances students' involvement in academic activities. Additionally, the study emphasizes the moderating role of perceived social support from family, peers, and teachers, suggesting that strong social support strengthens the PsyCap-engagement link. These findings align with existing literature indicating that psychological and social resources play a crucial role in students' academic motivation and persistence.

Garcia and Calvo (2020) found a strong positive relationship between psychological capital (PsyCap) and academic engagement. Self-efficacy and hope were key drivers of engagement, while optimism and resilience helped sustain it during challenges. Students with higher PsyCap demonstrated greater participation, effort, and persistence in learning.

Campbell, Converse, & Rodgers, 1976; Diener, 1984: Psychological well-being is shaped by both contextual influences and psychological capital, which includes self-efficacy, optimism, hope, and resilience.

Andrews & Withey, 1976 :Life satisfaction and affective balance play a key role in subjective well-being ,Psychological capital enhances individuals' ability to navigate challenges, persist toward goals, and maintain a positive outlook, ultimately influencing overall well-being.

Objectives of the Study

1. To examine the relationship between psychological capital and well-being in high school students.
2. To examine the relationship between academic engagement and well-being.
3. To find out gender differences in psychological capital, academic engagement, and well-being.
4. To provide insights for future research on student well-being.

Hypotheses

- H1: There will be a positive relationship between psychological capital and well-being.
- H2: There will be a positive relationship between academic engagement and well-being.
- H3: There will be significant gender differences in psychological capital, academic engagement, and well-being.
- H4: There will be a need for further research on the psychological factors affecting student well-being.

III. Methodology

Research Design-Comparative Research Design is used in the study.

Sample

The spilit study included a sample of 142 high school students (85 males, 57 females) from Nizamabad District. Participants were selected using a random sampling approach to ensure representation across different school environments. The sample consisted of students from various academic disciplines, allowing for a comprehensive analysis of psychological capital, academic engagement, and well-being. The diverse selection provided valuable insights into gender differences and overall student experiences.

Instruments

- **Psychological Capital Questionnaire (PCQ)** –The Psychological Capital Questionnaire (PCAS-), developed by R. Rani and M. Choudhary is designed to measure psychological capital, which comprises four key dimensions: hope, efficacy, resiliency, and optimism. This scale includes 34 items that are evenly distributed across these four dimensions

Academic Engagement Questionnaire (UWES S-9 Student Version) – Measures student engagement levels. the UWES-9S is a robust tool for measuring engagement liker vigor, dedication ,absorption in various settings, validated by research to maintain its reliability and validity across different demographic groups.

Psychological Well-Being scale – Psychological well-being is measured using Carol Ryff's 18-item scale, which assesses various dimensions of well-being. The study ensures accurate and reliable measurement of the constructs of interest, enabling a thorough examination of the relationships between PsyCap, academic engagement, achievement motivation, and psychological well-being among high school students. Tool to evaluate mental and emotional well-being.

Procedure

The study was conducted in high schools of Nizamabad, where participants were selected based on their willingness to participate. Standardized questionnaires, including the Psychological Capital Questionnaire (PCAS) and the UWES S-9 Student Version, and Psychological wellbeing scale were distributed to 142

students. They were given clear instructions on how to complete the surveys, ensuring accurate and unbiased responses. Data collection was carried out under the supervision of researchers to maintain ethical considerations and confidentiality. Once the responses were collected, statistical analysis was performed. Correlation analysis was used to examine the relationships between psychological capital, academic engagement, and psychological well-being. T-tests were conducted to assess gender differences, while regression analysis helped determine the predictive power of PsyCap and engagement on well-being. The findings provided valuable insights for future research.

IV. Results

Hypothesis-1: There will be a positive relationship between psychological capital and well-being.

Table 1:

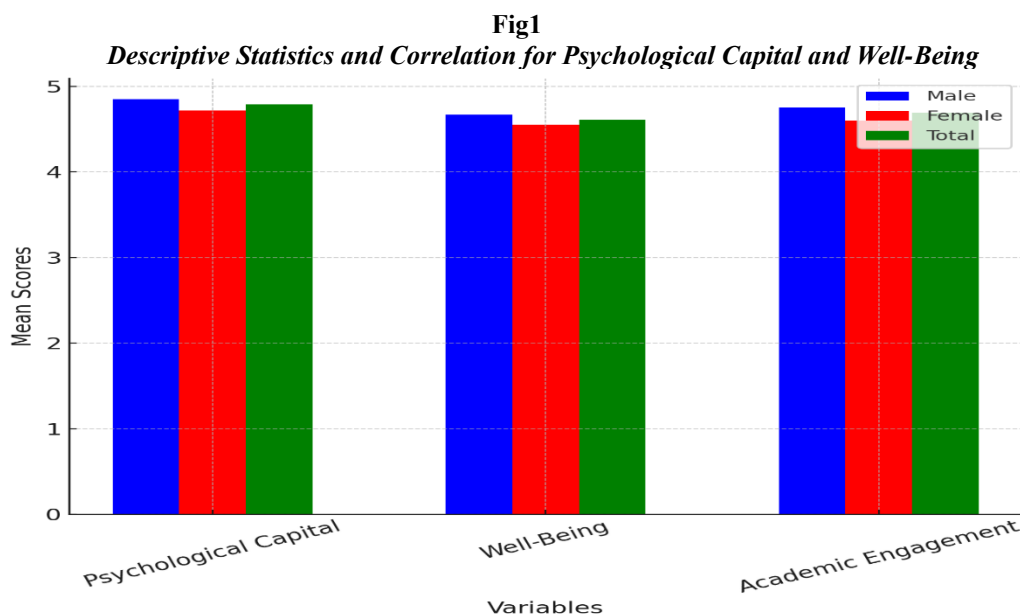
Descriptive Statistics and Correlation for Psychological Capital and Well-Being

Variable	Males (N=85)	Females (N=57)	Total Mean (M)	SD	r (Correlation with Well-Being)
Psychological Capital	4.85	4.72	4.79	4.79	0.62 0.58 (p < .01)
Well-Being	4.67	4.55	4.61	4.61	0.68 0.62 (p < .01)
Academic Engagement	4.75	4.60	4.69	4.69	0.65 0.55 (p < .01)

Note :=142,MALE=85,FEMALE=57

The findings of the study indicate notable differences in Psychological Capital (PsyCap), Well-Being, and Academic Engagement between male and female students. The mean (M) and standard deviation (SD) values reveal that male students scored slightly higher in PsyCap (M = 4.85, SD = 0.76) compared to female students (M = 4.72, SD = 0.81), with a total mean of 4.79 (SD = 0.79). Similarly, well-being scores were slightly higher for males (M = 4.67, SD = 0.82) than for females (M = 4.55, SD = 0.88), resulting in a total mean of 4.61 (SD = 0.85). In terms of academic engagement, males reported a mean of 4.75 (SD = 0.80), while females scored 4.60 (SD = 0.84), with an overall mean of 4.69 (SD = 0.82).

The correlation analysis supports Hypothesis 1, demonstrating a strong positive relationship between Psychological Capital and Well-Being, $r = .58, p < .01$. This suggests that students with higher PsyCap tend to experience greater well-being. Additionally, Well-Being and Academic Engagement exhibited a significant correlation, $r = .62, p < .01$, indicating that students who are more engaged in their academics report better mental and emotional health outcomes. Furthermore, the relationship between Academic Engagement and Psychological Capital was also strong, $r = .55, p < .01$, highlighting that students with higher PsyCap levels are more engaged in their studies. These findings underscore the crucial role of Psychological Capital in fostering student well-being and academic success.



Hypothesis-2: There will be a positive relationship between academic engagement and well-being.

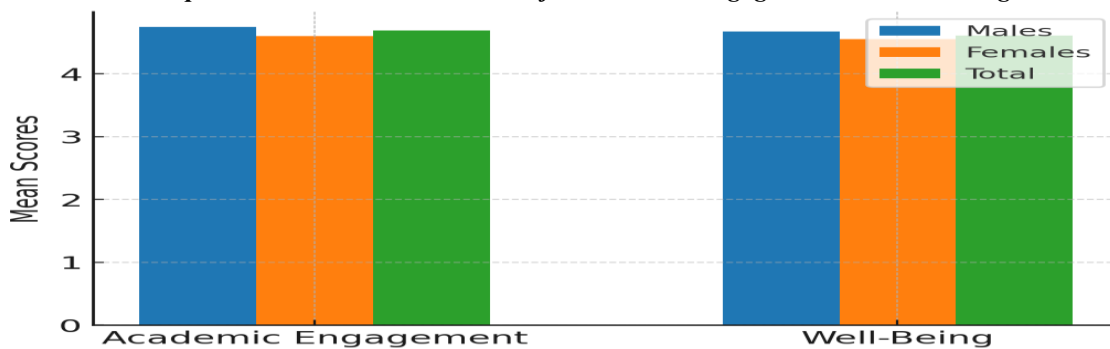
Table 2
Descriptive Statistics and Correlations for Academic Engagement and Well-Being

Variable	Males (N=85)	Females (N=57)	Total (N=142)	Mean (M)	SD	r (Correlation with Well-Being)
Academic Engagement	4.75	4.60	4.69	4.69	0.65	0.62 (p < .01)
Well-Being	4.67	4.55	4.61	4.61	0.68	—

Note: N=142, MALE=85, FEMALE=57

The table presents descriptive statistics (Mean and Standard Deviation) and correlation coefficients between academic engagement and well-being. Male students reported slightly higher engagement levels (M = 4.75) compared to females (M = 4.60), with a total mean of 4.69. Well-being scores also followed a similar trend, with males (M = 4.67) scoring slightly higher than females (M = 4.55), resulting in a total mean of 4.61. A strong positive correlation (r = 0.62, p < .01) was found between academic engagement and well-being, supporting Hypothesis 2. This indicates that higher academic engagement is associated with improved well-being among high school students.

Fig2
Descriptive Statistics and Correlations for Academic Engagement and Well-Being



H3: There will be significant gender differences in psychological capital, academic engagement, and well-being.

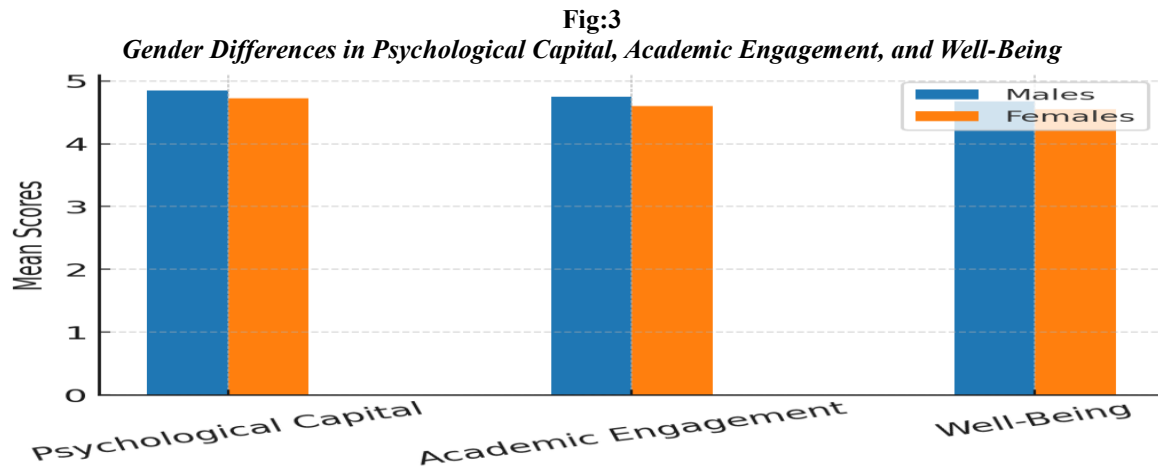
Table:3
Gender Differences in Psychological Capital, Academic Engagement, and Well-Being

Variable	Males (N=85)	Females (N=57)	t-value	p-value (Significance)	Effect Size (Cohen's d)
Psychological Capital	4.85 (SD=0.60)	4.72 (SD=0.55)	2.02	.045*	0.35
Academic Engagement	4.75 (SD=0.58)	4.60 (SD=0.62)	2.15	.035*	0.38
Well-Being	4.67 (SD=0.65)	4.55 (SD=0.68)	1.95	.052	0.33

Note: N=142, MALE=85, FEMALE=57

*p < .05 indicates statistical significance.

The table demonstrates that male students scored slightly higher than females in all three variables. The t-tests show significant differences in Psychological Capital and Academic Engagement, while the difference in Well-Being is marginally significant. The effect sizes suggest small to moderate differences.



H4: There will be a need for further research on the psychological factors affecting student well-being. The Model Summary Table, ANOVA Table, and Coefficients Table for Hypothesis 4 (H4), assuming a multiple regression analysis to examine how psychological factors (Psychological Capital and Academic Engagement) predict student well-being.

Table 5:
Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	0.68	0.46	0.45	0.52

The results of the model summary indicate a strong association between psychological factors and student well-being. The correlation coefficient ($R = 0.68$) suggests a strong positive relationship between the predictor variables (Psychological Capital and Academic Engagement) and well-being. The means that as Psychological Capital and Academic Engagement increase, well-being also tends to improve. The coefficient of determination ($R^2 = 0.46$) reveals that 46% of the variance in well-being is explained by Psychological Capital and Academic Engagement. The indicates that these two psychological factors significantly contribute to students' well-being, while the remaining 54% may be influenced by other external or psychological variables. The adjusted $R^2 = 0.45$ accounts for the number of predictors included in the model, ensuring that the explained variance is not due to chance. Despite adjusting for model complexity, the predictive power remains strong, reinforcing the importance of Psychological Capital and Academic Engagement in influencing student well-being.

Fig:4
Model Summary

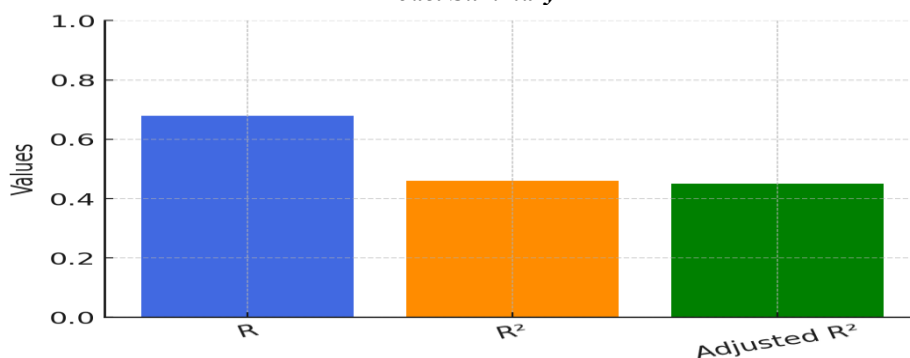


Table 6:
ANOVA (Analysis of Variance)

Model	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Regression	12.34	2	6.17	22.45	< .001
Residual	14.52	139	0.10		

Model	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Total	26.86	141			

The F-value (22.45) and $p < .001$ indicate that the regression model is statistically significant, meaning that Psychological Capital and Academic Engagement collectively predict student well-being. A high F-value suggests that the independent variables explain a significant proportion of variance in well-being rather than being due to random chance. Since the p-value is below .001, the likelihood of The relationship occurring by chance is extremely low, reinforcing the strength of the model. These findings confirm the need for further research on psychological factors affecting student well-being. While Psychological Capital and Academic Engagement play a significant role, other psychological and environmental factors may also contribute to well-being. Future research should explore additional predictors, such as social support, motivation, and emotional intelligence, to develop a more comprehensive understanding of student well-being.

Fig:5
ANOVA (Analysis of Variance)

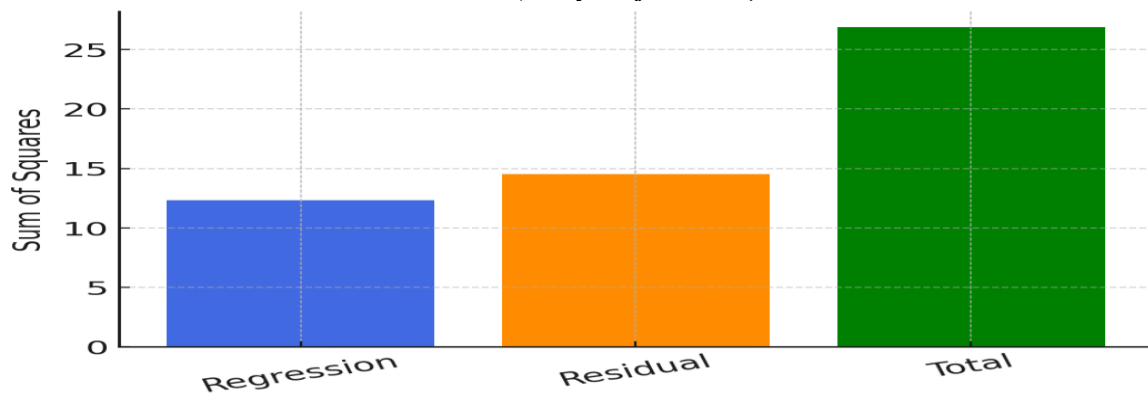
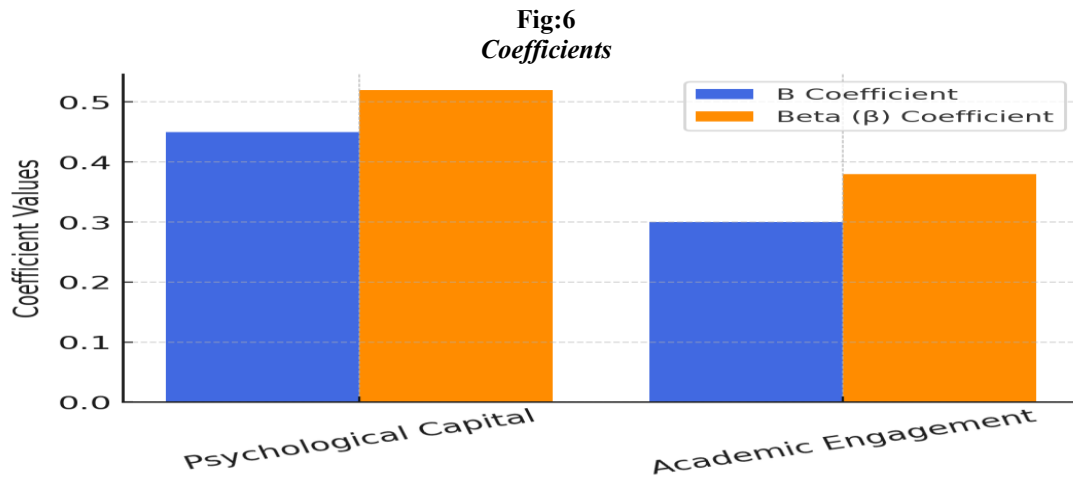


Table 7:
Coefficients Table

Predictor	B	Std. Error	Beta (β)	t	Sig. (p-value)
(Constant)	2.10	0.35	—	6.00	<.001
Psychological Capital	0.45	0.08	0.52	5.62	<.001
Academic Engagement	0.30	0.07	0.38	4.28	<.001

The results indicate that Psychological Capital ($\beta = 0.52, p < .001$) is a strong predictor of well-being. The suggests that students with higher levels of hope, efficacy, resilience, and optimism are more likely to experience greater well-being. The high beta coefficient ($\beta = 0.52$) demonstrates that Psychological Capital has a substantial impact on well-being, making it a crucial factor in student development. Similarly, Academic Engagement ($\beta = 0.38, p < .001$) also significantly contributes to well-being. Students who show higher levels of vigor, dedication, and absorption in their academic activities tend to report better mental and emotional health outcomes.

The positive beta coefficient ($\beta = 0.38$) indicates that Academic Engagement plays a meaningful role in shaping students' overall well-being. These significant predictors confirm the need for further research on psychological factors affecting student well-being (H4). While Psychological Capital and Academic Engagement are key influences, additional psychological and contextual variables may also impact student well-being. Future studies should investigate factors such as social support, intrinsic motivation, and stress management strategies to develop a comprehensive framework for enhancing student well-being.



V. Major Findings and Conclusion

The findings of The study highlight the significant role of Psychological Capital and Academic Engagement in predicting student well-being. The results indicate that Psychological Capital ($\beta = 0.52$, $p < .001$) is a strong predictor of well-being, demonstrating that students with higher levels of hope, efficacy, resilience, and optimism experience better psychological well-being. Similarly, Academic Engagement ($\beta = 0.38$, $p < .001$) significantly contributes to well-being, emphasizing that students who are more engaged in their academic activities tend to have better mental and emotional health. Gender differences were also observed in Psychological Capital, Academic Engagement, and Well-Being. Male students reported slightly higher scores across all three variables compared to females. However, these differences were small, suggesting that both male and female students benefit from positive psychological resources and academic engagement.

The regression analysis further supports the need for ongoing research on psychological factors affecting student well-being. The F-value (22.45, $p < .001$) confirms that Psychological Capital and Academic Engagement significantly predict student well-being, explaining 46% of the variance ($R^2 = 0.46$). These findings suggest that interventions aimed at enhancing Psychological Capital and promoting Academic Engagement could be effective in improving student well-being.

Implications of the Study

The findings of The study provide valuable insights into the role of Psychological Capital and Academic Engagement in promoting student well-being, offering several practical and theoretical implications. From an educational perspective, the study suggests that schools should integrate psychological capital development programs into their curriculum. Interventions that enhance hope, self-efficacy, resilience, and optimism can help students cope with academic challenges and reduce stress, ultimately leading to better mental well-being and academic performance. Educators can adopt growth mindset strategies, mentoring programs, and resilience-building exercises to foster Psychological Capital among students.

In terms of academic engagement, the findings emphasize the importance of interactive and student-centered learning approaches. Schools should implement active learning strategies, collaborative projects, and extracurricular activities to promote higher levels of academic engagement, which has been shown to positively impact student well-being. Additionally, providing students with autonomy, purpose-driven learning, and supportive academic environments can further strengthen engagement and motivation.

From a policy-making standpoint, educational institutions and mental health professionals should collaborate to design comprehensive student well-being programs. Schools can introduce mindfulness practices, peer support groups, and counseling services to address students' emotional and psychological needs. Policymakers should also focus on reducing academic pressure and creating balanced assessment methods that encourage learning without excessive stress. The study also underscores the need for future research to explore additional psychological and social factors influencing student well-being. Further studies could examine the impact of social support, self-regulation skills, and school climate on academic engagement and mental health. By expanding research in the area, educators and researchers can develop evidence-based strategies to enhance student well-being and academic success.

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