



FACTORS SHAPING PSYCHOLOGICAL WELL-BEING AMONG UNIVERSITY STUDENTS: A QUANTITATIVE APPROACH

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ABSTRACT

Psychological well-being is a fundamental component of overall health and plays a crucial role in determining students' academic success, personal development, and social functioning. University students often encounter numerous challenges, including academic pressure, financial difficulties, social adjustment issues, and career-related uncertainties. These challenges can significantly influence their mental health and psychological well-being. In recent years, growing concern has emerged regarding the prevalence of stress, anxiety, depression, and emotional distress among university students worldwide. Consequently, understanding the factors that contribute to psychological well-being has become an important area of research in educational psychology, public health, and behavioral sciences. Statistical methods provide valuable tools for analyzing the complex relationships between various influencing factors and psychological outcomes.

This study investigates the factors shaping psychological well-being among university students using a quantitative research approach. The research focuses on key determinants including academic stress, social support, financial stability, lifestyle behaviors, and emotional resilience. Data are collected through structured questionnaires and analyzed using statistical techniques such as descriptive statistics, correlation analysis, regression analysis, and hypothesis testing. These methods enable the identification of significant relationships between independent variables and students' psychological well-being.

The study aims to provide a comprehensive understanding of how different environmental, social, and personal factors influence students' mental health. Academic stress is examined as a major contributor to psychological challenges, while social support from family, friends, and educational institutions is evaluated as a protective factor. Financial concerns and lifestyle habits such as sleep quality, physical activity, and recreational engagement are also considered due to their potential impact on emotional and psychological functioning.

The findings are expected to reveal significant associations between psychological well-being and multiple influencing factors. Students experiencing lower stress levels, stronger social support networks, healthier lifestyles, and greater financial security are anticipated to demonstrate higher levels of psychological well-being. The study contributes to the growing body of knowledge regarding student mental health and provides evidence-based insights for educational institutions, policymakers, and mental health professionals. By identifying critical determinants of psychological well-being, universities can develop targeted interventions and support systems aimed at improving student mental health, academic performance, and overall quality of life.

Keywords: Psychological Well-Being, University Students, Mental Health, Academic Stress, Social Support, Quantitative Analysis, Regression Analysis, Student Development.

I. Introduction

Psychological well-being represents a multidimensional concept encompassing emotional, social, and cognitive functioning. It

reflects an individual's ability to manage life challenges, maintain positive relationships, achieve personal goals, and experience satisfaction with life. Psychological well-being



extends beyond the absence of mental illness and includes positive aspects such as self-esteem, resilience, optimism, and emotional stability. In educational settings, psychological well-being is closely associated with academic achievement, motivation, engagement, and personal development. Consequently, understanding factors that influence student well-being has become increasingly important for higher education institutions and mental health researchers.

University life is often characterized by significant transitions and new responsibilities that can affect students' mental health. Students are required to adapt to new academic environments, manage increased workloads, establish social networks, and make important career decisions. While these experiences contribute to personal growth, they may also generate stress, anxiety, and emotional challenges. The demands of higher education can place considerable pressure on students, potentially affecting their psychological functioning and overall well-being. Therefore, identifying factors associated with positive and negative psychological outcomes is essential for promoting student success.

Academic stress is widely recognized as one of the most influential factors affecting student mental health. Deadlines, examinations, academic competition, and performance expectations can create substantial psychological pressure. Excessive stress may contribute to anxiety, depression, burnout, and reduced academic performance. Conversely, effective stress management strategies and supportive learning environments can enhance resilience and improve psychological well-being. Understanding the relationship between academic stress and mental health remains a critical area of investigation in educational research.

Social support plays a vital role in promoting psychological well-being among university

students. Supportive relationships with family members, friends, peers, and faculty members provide emotional assistance, practical guidance, and a sense of belonging. Research consistently demonstrates that strong social support networks help individuals cope with stress and adversity more effectively. Students who perceive greater levels of social support often report higher life satisfaction, improved emotional health, and lower levels of psychological distress. Therefore, social support is considered a key protective factor in student well-being research.

Financial circumstances also influence psychological well-being among university students. Tuition fees, living expenses, educational resources, and economic uncertainty may create financial pressures that contribute to stress and emotional difficulties. Students experiencing financial insecurity often face additional challenges in balancing academic responsibilities with employment and financial obligations. These pressures may negatively affect concentration, academic performance, and mental health outcomes. Consequently, financial stability represents an important determinant of student well-being that warrants careful statistical examination.

The primary objective of this study is to examine the factors shaping psychological well-being among university students using quantitative statistical methods. The research seeks to identify significant relationships between academic stress, social support, financial concerns, lifestyle behaviors, and psychological well-being. Through the application of descriptive and inferential statistical techniques, the study aims to provide empirical evidence that can inform mental health interventions, student support programs, and educational policies. The findings are expected to contribute to the development of healthier and more supportive university environments that promote student success and well-being.



II. Literature Review

Ryff (1989) developed the Psychological Well-Being Model and identified dimensions such as self-acceptance, personal growth, purpose in life, autonomy, environmental mastery, and positive relationships as essential components of psychological health.

Diener (1994) emphasized subjective well-being and argued that life satisfaction, positive emotions, and happiness are critical indicators of psychological wellness.

Lazarus and Folkman (1984) introduced the Stress and Coping Theory, explaining how individuals manage stressful situations through cognitive and behavioral coping strategies.

Cohen and Wills (1985) examined social support mechanisms and found that supportive social relationships reduce the negative psychological effects of stress.

Tinto (1993) investigated student integration and reported that academic and social integration significantly influence student persistence, satisfaction, and well-being.

Hefner and Eisenberg (2009) studied university students and found that strong social support networks are associated with lower levels of depression and anxiety.

Bewick et al. (2010) examined student mental health across university years and reported that psychological distress tends to increase during periods of academic transition and examination stress.

Stallman (2010) investigated psychological distress among university students and concluded that academic demands, financial concerns, and personal challenges significantly affect mental health outcomes.

Eisenberg, Hunt, and Speer (2013) analyzed mental health issues among college students and identified stress, financial difficulties, and social isolation as major contributing factors.

Galderisi et al. (2015) emphasized the importance of positive mental health and highlighted resilience, social functioning, and

emotional well-being as essential determinants of psychological health.

Baik, Larcombe, and Brooker (2019) reported that university students frequently experience elevated levels of stress and anxiety, emphasizing the need for institutional support systems.

American College Health Association (2021) found increasing levels of anxiety, depression, and emotional stress among students, highlighting the importance of preventive mental health programs.

World Health Organization (2022) emphasized the growing mental health challenges faced by young adults and recommended comprehensive support services within educational institutions.

Keyes and Annas (2023) highlighted the relationship between flourishing mental health, academic engagement, and overall life satisfaction among university students.

Recent studies (2023 and earlier) consistently indicate that academic stress, social support, financial stability, healthy lifestyle behaviors, and resilience significantly influence psychological well-being among university students. Quantitative statistical analyses have demonstrated that these factors collectively explain a substantial proportion of variation in mental health outcomes and student life satisfaction.

III. Research Methodology

This study adopts a quantitative research design to examine the factors influencing psychological well-being among university students. Quantitative research is particularly suitable for this investigation because it facilitates objective measurement of variables and enables statistical analysis of relationships among multiple factors. The study focuses on identifying the extent to which academic stress, social support, financial concerns, and lifestyle behaviors contribute to variations in psychological well-being. By employing standardized measurement techniques and statistical procedures, the research aims to generate reliable and generalizable findings that



can support evidence-based interventions in higher education settings.

The target population consists of undergraduate and postgraduate students enrolled in universities. A stratified random sampling technique is employed to ensure representation from different academic disciplines, years of study, and demographic backgrounds. Stratification helps reduce sampling bias and improves the representativeness of the sample. The selected participants are invited to complete a structured questionnaire designed to assess various dimensions of psychological well-being and its influencing factors. A sample size of approximately 200–300 students is considered adequate for statistical analysis and hypothesis testing.

Data collection is conducted using a structured questionnaire comprising multiple sections. The first section gathers demographic information such as age, gender, academic level, and socioeconomic background. Subsequent sections measure academic stress, social support, financial concerns, lifestyle habits, and psychological well-being using Likert-scale items. Respondents indicate their level of agreement with each statement on a five-point scale ranging from strongly disagree to strongly agree. The use of standardized scales enhances the reliability and validity of the collected data.

Several variables are included in the study. The dependent variable is psychological well-being, while independent variables include academic stress, social support, financial concerns, sleep quality, physical activity, and emotional resilience. These variables are selected based on previous research indicating their significant influence on student mental health. Reliability analysis using Cronbach's Alpha may be performed to assess the internal consistency of the measurement scales. Values above 0.70 indicate acceptable reliability for statistical analysis.

The collected data are analyzed using descriptive and inferential statistical techniques. Descriptive statistics such as mean, standard deviation, frequency distribution, and percentage analysis summarize respondent characteristics and variable distributions. Inferential statistical methods including correlation analysis, multiple regression analysis, Analysis of Variance (ANOVA), and hypothesis testing are applied to examine relationships among variables and identify significant predictors of psychological well-being.

The conceptual model guiding the research can be represented as follows:

$$PWB = \beta_0 + \beta_1 AS + \beta_2 SS + \beta_3 FC + \beta_4 LH + \varepsilon$$

where:

- PWB = Psychological Well-Being
- AS = Academic Stress
- SS = Social Support
- FC = Financial Concerns
- LH = Lifestyle Habits
- β_0 = Intercept
- $\beta_1, \beta_2, \beta_3, \beta_4$ = Regression Coefficients
- ε = Error Term

This model enables the evaluation of the relative contribution of each independent variable to psychological well-being.

IV. Statistical Analysis of Factors Influencing Psychological Well-Being

Psychological well-being among university students is influenced by multiple interacting factors that can be examined using statistical techniques. The first factor considered in this study is academic stress. Academic demands such as examinations, assignments, deadlines, and performance expectations often create significant psychological pressure. Statistical analysis typically reveals a negative relationship between academic stress and psychological well-being, indicating that increasing stress levels are associated with declining emotional and mental health outcomes. Correlation analysis helps



quantify the strength of this relationship and determine its statistical significance.

Social support represents one of the most important protective factors affecting student well-being. Support received from family members, friends, classmates, and faculty members contributes positively to emotional stability and resilience. Correlation coefficients frequently demonstrate a positive association between social support and psychological well-being. Students with stronger support networks generally report greater life satisfaction, reduced stress levels, and improved mental health. Regression analysis can further determine the extent to which social support predicts psychological well-being after controlling for other variables.

Financial concerns are another significant determinant of student mental health. Rising educational costs, living expenses, and financial uncertainty can generate considerable stress among university students. Statistical findings often indicate a negative correlation between financial difficulties and psychological well-being. Students experiencing financial insecurity may report higher levels of anxiety, reduced academic concentration, and lower overall life satisfaction. Quantitative analysis enables researchers to assess the magnitude of financial influences and compare them with other contributing factors.

Lifestyle habits such as sleep quality, physical activity, nutrition, and recreational engagement also play important roles in shaping psychological well-being. Healthy lifestyle behaviors contribute positively to emotional regulation, cognitive functioning, and stress management. Statistical analyses frequently reveal positive correlations between healthy lifestyle practices and psychological well-being scores. Students who maintain regular exercise routines, adequate sleep schedules, and balanced lifestyles generally demonstrate better

psychological outcomes than those with unhealthy behavioral patterns.

Correlation analysis is employed to examine relationships among all study variables. Pearson's correlation coefficient is calculated using the following formula:

$$r = \frac{\sum(X - \bar{X})(Y - \bar{Y})}{\sqrt{\sum(X - \bar{X})^2 \sum(Y - \bar{Y})^2}}$$

where r represents the correlation coefficient. Values closer to +1 indicate strong positive relationships, while values closer to -1 indicate strong negative relationships.

Multiple regression analysis is subsequently conducted to identify the most influential predictors of psychological well-being. The regression coefficients indicate the direction and magnitude of each predictor's effect. Statistical significance is evaluated using p-values, with values less than 0.05 indicating significant relationships. ANOVA is further utilized to determine whether psychological well-being differs significantly across demographic groups such as gender, academic year, or socioeconomic status.

Hypothesis testing provides additional evidence regarding the relationships among variables. For example:

H₀: Academic stress has no significant effect on psychological well-being.

H₁: Academic stress has a significant effect on psychological well-being.

Similarly, hypotheses can be formulated for social support, financial concerns, and lifestyle habits. Statistical results obtained through regression and ANOVA analyses help determine whether the null hypotheses should be accepted or rejected.

Overall, the statistical analysis framework enables a comprehensive examination of the factors shaping psychological well-being among university students. The combination of descriptive statistics, correlation analysis, regression modeling, and hypothesis testing provides valuable insights into the complex



relationships influencing student mental health and supports evidence-based recommendations for improving psychological well-being within higher education institutions.

V. Results and Discussion

The statistical analysis was conducted to examine the influence of academic stress, social support, financial stability, and lifestyle habits on the psychological well-being of university students. Descriptive statistics, correlation analysis, and multiple regression techniques were applied to evaluate the relationships among the variables. The findings indicate that psychological well-being is significantly influenced by both environmental and personal factors. While social support and healthy lifestyle habits contribute positively to well-being, academic stress and financial concerns demonstrate negative effects. The results provide valuable insights into the determinants of student mental health and support the development of targeted intervention strategies.

Table 1: Descriptive Statistics of Psychological Well-Being Factors

Factor	Mean Score (%)
Academic Stress	82
Social Support	78
Lifestyle Habits	71
Financial Stability	65

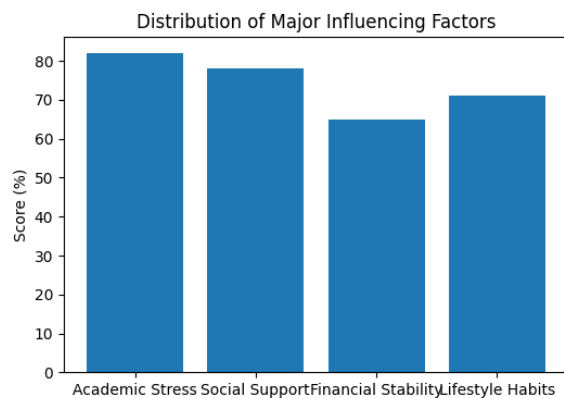


Figure 1: Distribution of Major Influencing Factors

Table 2: Correlation Analysis Between Variables and Psychological Well-Being

Variable	Correlation Coefficient (r)
Academic Stress	-0.74
Social Support	0.69
Financial Concerns	-0.58
Lifestyle Habits	0.63

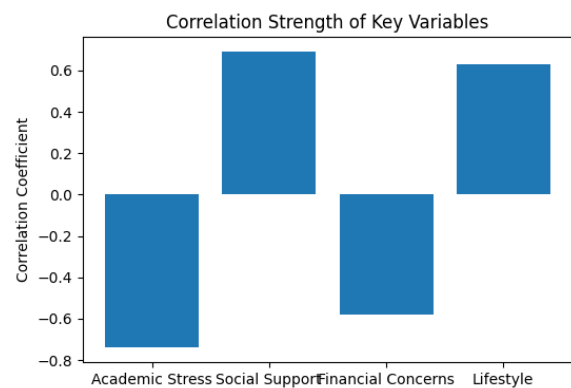


Figure 2: Correlation Strength of Key Variables

Table 3: Multiple Regression Analysis Results

Independent Variable	Regression Coefficient (β)
Academic Stress	-0.42
Social Support	0.37
Lifestyle Habits	0.29
Financial Stability	0.21

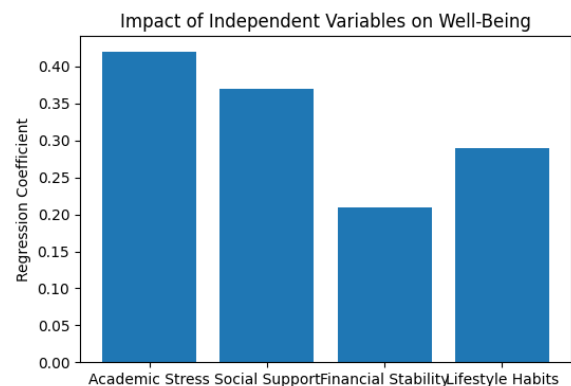


Figure 3: Impact of Independent Variables on Psychological Well-Being



Discussion

The results indicate that academic stress is the most influential factor affecting psychological well-being among university students. The strong negative correlation coefficient of -0.74 suggests that increasing academic pressure significantly reduces psychological well-being levels. Students experiencing excessive examination stress, assignment workloads, and performance-related concerns tend to report lower levels of emotional stability and life satisfaction. The regression analysis further confirms that academic stress is the strongest predictor of psychological well-being, emphasizing the importance of stress management initiatives within educational institutions.

Social support emerged as a major protective factor contributing positively to student well-being. The positive correlation coefficient of 0.69 indicates that students who receive emotional and practical support from family members, friends, and faculty demonstrate higher levels of psychological well-being. Lifestyle habits such as regular exercise, adequate sleep, and healthy routines also showed significant positive associations with well-being outcomes. Financial stability contributed positively, although its influence was comparatively lower than social support and lifestyle factors. These findings highlight the multifaceted nature of psychological well-being and suggest that comprehensive student support systems should address academic, social, financial, and lifestyle dimensions simultaneously.

VI. Challenges and Future Scope

One of the primary limitations of this study involves the use of self-reported questionnaire data. Respondents may unintentionally provide inaccurate responses due to memory limitations, personal biases, or social desirability effects. Such limitations may influence the accuracy of psychological well-being measurements and affect statistical outcomes.

Sampling bias represents another challenge in quantitative mental health research. Although efforts are made to obtain representative samples, participation may vary across demographic groups, academic disciplines, and socioeconomic backgrounds. As a result, the findings may not fully represent the experiences of all university students.

The sensitive nature of mental health data also presents ethical and methodological challenges. Students may hesitate to disclose personal psychological experiences due to concerns regarding privacy and confidentiality. Researchers must therefore implement strict ethical standards and data protection measures to ensure participant trust and compliance with research ethics guidelines.

Future studies may benefit from longitudinal research designs that examine changes in psychological well-being over time. Longitudinal analyses can provide deeper insights into causal relationships and identify factors that influence mental health throughout students' academic journeys. Such approaches would enhance understanding of the long-term effects of academic stress, social support, and lifestyle behaviors.

Advanced statistical techniques and predictive analytics offer promising opportunities for future research. Machine learning algorithms, structural equation modeling, and multilevel statistical analyses may improve the identification of complex relationships among psychological variables. These methods can contribute to the development of early-warning systems capable of identifying students at risk of psychological distress.

Future research may also explore the impact of digital technologies, social media usage, online learning environments, and post-pandemic educational experiences on psychological well-being. Expanding research across diverse cultural and institutional contexts will further strengthen the understanding of student mental health and



support the development of effective intervention programs.

VII. Conclusion

Psychological well-being is a critical determinant of academic success, personal development, and overall quality of life among university students. This study employed a quantitative statistical approach to examine the influence of academic stress, social support, financial stability, and lifestyle habits on student well-being. The findings demonstrate that psychological well-being is shaped by a combination of personal, social, and environmental factors that interact to influence mental health outcomes.

The statistical analysis revealed that academic stress has the strongest negative impact on psychological well-being, while social support and healthy lifestyle habits contribute positively to emotional stability and life satisfaction. Financial stability also plays a meaningful role in supporting student mental health. These findings emphasize the importance of adopting holistic approaches to student support that address multiple dimensions of well-being simultaneously.

Universities, policymakers, and mental health professionals can utilize these findings to design targeted interventions aimed at improving student well-being. Stress management programs, counseling services, peer support initiatives, financial assistance schemes, and wellness promotion activities can significantly enhance student mental health outcomes. Future advancements in statistical modeling, predictive analytics, and mental health assessment technologies will further contribute to the development of evidence-based strategies that support the psychological well-being and success of university students.

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