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Mental Health as a Predictor of Quality of Life among University Students in Saudi Arabia: A Cross-Sectional Study

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ABSTRACT: Background: Mental health is one of the most essential predictors of university students' well-being and quality of life. The way quality of life and mental health interact needs to be assessed in order to be able to design efficient health care policies to support students' well-being.

Aim of Study: To evaluate the relationship between mental health and quality of life among students at King Faisal University and to determine the predictive effect of mental health and selected demographic characteristics on quality of life.

Methods: A cross-sectional correlational design was used for 407 students from different colleges at King Faisal University in Al-Ahsa Governorate, Saudi Arabia. The data were collected using self-administered questionnaires that assessed mental health and quality of life, together with the students' demographic characteristics. For inferential results; the descriptive statistics, Pearson's correlation coefficient, independent-samples t-test, one-way analysis of variance, and multiple regression analysis were performed. The level of significance was set at $p < 0.05$.

Results: The findings indicated generally favorable levels of mental health and quality of life, with mean percentages of 71.8% and 71.6%, respectively. All dimensions of mental health and quality of life were found to be significantly different from their hypothetical means ($p = 0.001$). There was a positive correlation between all dimensions of mental health and quality of life, with correlation coefficients ranging between $r = 0.20$ and $r = 0.76$ ($p = 0.001$). There was a positive correlation between overall mental health and quality of life ($r = 0.73$, $p = 0.001$). Mental health was found to be a positive predictor of quality of life ($B = 1.20$, $SE = 0.05$, $t = 21.90$, $p = 0.001$), explaining 54% of the variance in quality of life ($R^2 = 0.54$).

Conclusion: The study established that there was a high correlation between mental health and quality of life among King Faisal University students. Mental health was identified as a key predictor of quality of life, which indicates the importance of intensified promotion, screening, counseling, and preventive measures of mental health problems in universities to improve students' quality of life.

INTRODUCTION

University life is a critical stage in students' lives involving academic, social, economic, and professional transitions while gaining a degree and discovering a career. However, university students often face a range of stressors, which negatively affect their quality of life (Zou et al., 2024). Students must deal with academic workload, exams, financial problems, job hunting, social life, and other university-related issues, which often lead them to experience severe mental health issues, distress, anxiety, and depression. Therefore, mental health issues are a critical determinant of university students' quality of life (Sarker, Islam, & Nuhan, 2026).

Mental health refers to emotional and psychological well-being and how individuals function and adapt to their surroundings, interact with others, and cope with daily stresses and challenges (Magomedova & Fatima, 2025). Students suffering mental health issues find a difficulty to focus, engage, and interact well socially and academically, and to participate fully in campus life. Additionally, those who suffer from psychological distress, depression, or other mental disorders are unable to meet their potential in terms of personal and professional goals, which may negatively impact their quality of life (Abrams, 2022).

Quality of life is one's perception and views of position in life in the context of culture and in relation to goals, expectations, and concerns. It emphasizes aspects of life related to value systems that are critical to health and well-being, such as physical, psychological, and social domains (WHO, 2023). Life satisfaction is a critical indicator that determines students' involvement in campus activities and social interactions, as well as the fulfillment of educational goals and engagement (Antamarian, 2017). Students' QOL is frequently compromised by a range of stressors, such as academic demands, financial constraints, social interactions, and environmental factors, which are prevalent throughout university life (Mahin et al., 2025).

The correlation between mental health and quality of life is of particular interest in the population of university students due to the potential of psychological conditions to affect multiple areas of daily life (Porru et al., 2021). The students who experience poor mental health tend to report worse physical health, low levels of social engagement, negative academic performance, and dissatisfaction with their living environments (Li & Gu, 2025). On the other hand, positive mental health often leads to positive emotions, high engagement, flexibility, and the ability to manage challenges and adapt, resulting in improved overall life satisfaction (Gautam et al., 2024). The relationship between mental health and life satisfaction is essential in considering the impact of psychological distress on students' lives, as well as in developing effective campus-based interventions, health promotion, and well-being support programs. By understanding these links, it is easier to identify students who may benefit from tailored mental health services, as well as provide high-quality educational services that support their academic and social life (Calderón-Cruz et al., 2025).

Currently, Saudi students live in a dynamic and diverse environment where they encounter a wide range of social, academic, and economic challenges. As the country continues to develop following the Saudi Vision 2030 plan, numerous changes have occurred in the educational system, employment opportunities, and students' social life (Makhlouf, 2021). While these changes create excellent opportunities for young people, they also bring significant stress and pressure to adjust to the new life and achieve their goals. Therefore, investigating the impact of mental health and associated factors on the QOL of Saudi students is critical. Although international studies have demonstrated the associations between mental health and students' QOL, the strength and nature of these associations may differ depending on a range of individual and environmental factors (Mahin et al., 2025). In the context of Saudi Arabia, evidence on the effect of mental health as a predictor of students' QOL is limited and thus requires further investigation for the development of effective university-based mental health services.

Identifying mental health as a predictor of students' overall life quality will facilitate the implementation of targeted mental health promotion and support services in the campus community. Additionally, understanding these associations will help health professionals and university administrators promote students' positive psychological well-being, identify those who need assistance, and provide the necessary support, resources, and services. This cross-sectional study targets to evaluate the association between mental health and students' quality of life among university students in Saudi Arabia. In addition, this study will determine whether mental health status can predict students' quality of life.

The importance of the study lies in the fact that it will provide empirical evidence on the relationship between mental health status and quality of life among university students in Saudi Arabia. In addition, the study will offer the much-needed information for the administration, nurses, counselors, psychologists, and policymakers to recognize the role of psychological factors and responses on the quality of student life and intervene accordingly. It is believed that by improving the mental health status of university students in Saudi Arabia, not only will their quality of life be enhanced but also their studies and social life, which in turn will lead to successful graduation.

General Objective

To evaluate the association between mental health and quality of life among university students in Saudi Arabia and to determine the extent to which mental health predicts the university students' quality of life.

Specific Objectives

1. To evaluate the level of mental health and quality of life among university students in Saudi Arabia.
2. To examine the association between mental health and quality of life among university students.
3. To identify the demographic characteristics associated with students' mental health and quality of life.
4. To determine whether mental health and demographic characteristics significantly predict quality of life among university students.
5. To examine whether there is a statistically significant difference in students' scores on the mental health and quality of life dimensions at King Faisal University depending on certain demographic variables such as gender, specialization, and academic year.

Research Questions

1. What are the levels of mental health and quality of life among university students in Saudi Arabia?
2. Is there a statistically significant association between mental health and quality of life among university students?
3. Which demographic characteristics are significantly associated with students' mental health and quality of life?
4. Do mental health and demographic characteristics significantly predict quality of life among university students?
5. Is there a statistically significant difference in students' scores on the mental health and quality of life dimensions at King Faisal University depending on certain demographic variables such as gender, specialization, and academic year?

Importance of the Study

1. To investigate the predictive association between mental health and quality of life of the students of King Faisal University.

2. The results of the study can help formulate suitable programs and interventions that will enhance mental health and the overall quality of life among university students.

3. To establish the importance of mental health and how it contributes to the overall well-being and quality of life of the students, including their psychological, physical, social, and environmental aspects.

4. To increase awareness among students about the role of mental health and encourage them to maintain good mental health, which in turn will lead to an improved quality of life.

REVIEW OF RELATED LITERATURE

1. Mental Health among University Students

Mental health constitutes an integral part of students' well-being and functioning. Students who are experiencing a developmental period of gaining autonomy, increased responsibility, academic demands, and uncertainty about the future may be vulnerable to mental health disorders such as anxiety, depression, and stress. Studies conducted in the Saudi Arabia region indicate that the mental health problems of university students are considered an important public health issue. For example, a systematic review of studies on anxiety among college/school students in Saudi Arabia revealed that prevalence rates ranged from 34.9% to 65%. In addition, the review found that anxiety prevalence varied depending on the students' gender and field of study (Alahmadi, 2019).

Similarly, another systematic review of depression studies among medical students in Saudi Arabia found that the prevalence rate ranged from 30.9% to 77.6%, with the pooled value of about 51.5%. Depression was also inconsistently associated with such factors as gender, academic year, sleep disorders, and lifestyle (AlJaber, 2020).

Moreover, evidence shows that students continue to report high levels of psychological distress and mental health problems. For instance, a 2024 study was implemented among 728 university students in Jeddah, Saudi Arabia, found that 81.5% of them experienced depressive symptoms, and 63.6% had anxiety symptoms. Female gender was identified as a risk factor for anxiety. In addition, the study noted gender differences in depression, anxiety, and stress (Malebari et al., 2024). In another study done

in Saudi Arabia, gender, academic year, field of study, and other demographics were associated with depression, anxiety, and stress. An investigation conducted on 811 undergraduate students at three different Saudi universities found that most participants experienced severe existential anxiety. Existential anxiety was associated with higher levels of depression, generalized anxiety, and stress. This review highlights the relevance of studying the role of demographics in students' mental health (Alshehri et al., 2024).

2. Quality of Life among University Students

Quality of life (QoL) is a concept that reflects an individual's perception of their current state in terms of their physical health, psychological well-being, level of social functioning, and environment. In general, university students' QoL depends on academic, health, lifestyle, financial, and psychological conditions. An individual's satisfaction with their studies and social life can be negatively affected by a poor quality of life (Mahin et al., 2025).

World Health Organization Quality of Life in brief version (WHOQOL-BREF) is a generic QoL measure for university students, including physical, psychological, social, and environmental domains. A cross-sectional study conducted among medical students in Saudi Arabia aimed to assess the quality of life of students using the Arabic version of WHOQOL-BREF. The results indicated that this tool had acceptable reliability and validity, with a Cronbach's alpha of 0.86. Moreover, the analysis revealed that students' QoL and most domain scores were associated with academic achievement. Surprisingly, no correlation was found between gender and overall QoL and between academic year and overall QoL (Malibary et al., 2019). Furthermore, students' QoL is a critical issue since this concept goes beyond a student's physical condition, reflecting an individual's perspective on their social and psychological state. Indeed, the recent burden of mental health disorders among Saudi students highlights the significance of this issue in the country (Alzahrani et al., 2025).

3. Association between Mental Health and Quality of Life

Mental health is critically correlated with quality of life. Anxiety, depression, and stress can affect university students in many ways, for instance, by reducing their concentration, motivation to study, social interactions, overall satisfaction with life, and performance. Therefore, students' poor mental health is likely to be associated with low levels of their quality of life (Chu et al., 2023).

Indeed, a recent study conducted in Saudi Arabia and published in 2024 found a negative correlation between mental health and students' health-related quality of life, revealing that poor mental health contributes to poor lifestyle and health-related quality of life of university students (Alzahrani et al., 2025). Similarly, depression and anxiety were reported as the major factors affecting the quality of life of students in various Saudi studies. The evidence linking mental health problems and low quality of life provides justification for examining this link in the current study (Malebari et al., 2024).

4. Role of Demographics in Students' Mental Health and Quality of Life

The impact of gender, field of study, and academic year on students' mental health and quality of life is of particular interest. These variables represent key differences among student populations, and these factors may be important determinants of university students' mental health and quality of life. For example, recent studies report that female Saudi students are more likely to experience mental health issues compared to their male counterparts (AlJaber, 2020).

Indeed, the review on anxiety found that females are more likely to experience anxiety symptoms than males. Similarly, in the depression review, females also reported higher levels of depression. However, mixed evidence was found on the effect of students' demographics on their quality of life. For example, a recent study on the quality of life of medical students in Saudi Arabia found that gender, academic year, and academic performance did not affect students' overall quality of life. Instead, students' academic performance was associated with differences in certain domains of quality of life (psychological and social relationships) (Malibary et al., 2019).

5. Mental Health as a Predictor of Quality of Life

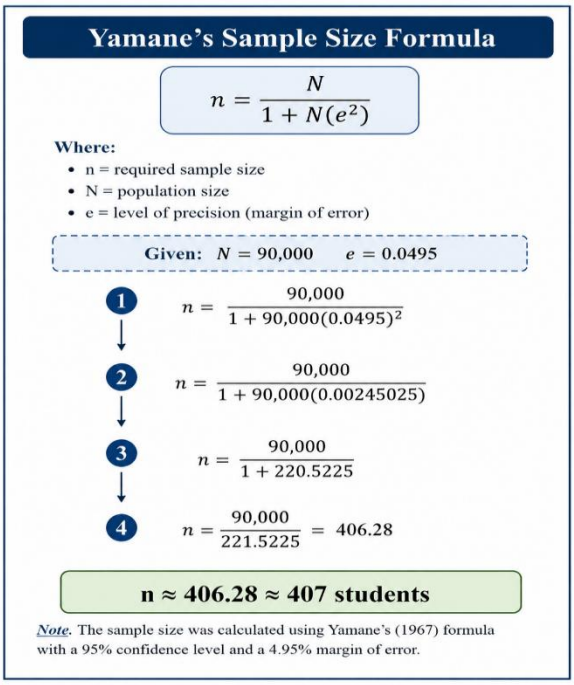
The literature reviewed for this study indicates that mental health constitutes an important predictor of university students' quality of life. Depression, anxiety, and stress can affect various domains of students' lives, including their academic performance, social life, and interactions with the environment (Alzahrani et al., 2025). Also, recent studies conducted in Saudi Arabia indicate that poor mental health is significantly associated with poor lifestyle and lower levels of students' health-related

quality of life. However, most of the previous studies focus on a specific aspect of mental health (e.g., depression) and examine its impact on students' well-being (Alahmadi, 2019). There is also limited evidence on how mental health influences the multidimensional concept of quality of life while controlling for demographic factors.

6. Research Gaps

However, there is a significant body of research literature that describes the prevalence of mental health issues among university students in Saudi Arabia. there is a need for additional studies that will explore the relationships between mental health and quality of life while considering the influence of demographics. The majority of studies conducted so far focused on mental health aspects among medical students, with few studies examining general university students' mental health. Further research is needed to understand how the multidimensional construct of mental health interacts with another complex concept, quality of life (AlJaber, 2020).

Specifically, most studies on mental health and quality of life among university students in Saudi Arabia focused on depression, anxiety, and stress. The current study aims to fill this gap by investigating the association between mental health and quality of life while examining potential differences between students on various demographic indicators. In addition, the current study will determine whether mental health and demographics can predict quality of life. By doing so, this study will contribute to the growing body of literature on university students' mental health and its impact on other aspects of students' lives. The findings of this study will be helpful in developing university interventions that will improve students' mental health, which will subsequently enhance other domains of students' well-being.



Note. The sample size was calculated using Yamane's (1967) formula with a 95% confidence level and a 4.95% margin of error.

SUBJECTS AND METHODS

Design

A quantitative, cross-sectional correlational design was used to assess the relationship between mental health and the quality of life of students at the King Faisal University in Saudi Arabia. Data was gathered from study participants through self-reported measures of mental health and quality of life at one point in time. This design was efficacious for the researcher because it will allow them to effectively gather information from a decent number of participants (university students) and identify indicators of poor quality of life.

Study Setting

The study was conducted at King Faisal University in Al-Ahsa Governorate, Saudi Arabia, one of whose main goals in the area of scientific research was to be one of the basic requirements so as to address the problems of society. It has a total enrollment of more than 90,000 students and provides access to a large and diverse undergraduate student body from different academic disciplines in 15 colleges.

Study Population and Sampling

The study population is the undergraduate students in bachelor's degree programs from 9 faculties at the selected university. A simple random sampling technique was adopted in this study for the second semester of the academic year (2026), utilizing the names of all undergraduates' students in the selected university. An identification number was assigned to each name on the list. Using a random number generator, 407 numbers were randomly selected from the list (for a non-response rate) as participants in the research. In practice, after generating the random list, we will contact the selected students individually to explain the study and seek their consent to participate. If a student declined or was unavailable (e.g., on extended leave), another student was randomly selected as a replacement to maintain the sample size. A computer-generated random number table using SPSS or Microsoft Excel was then used to select the required sample size. It should be noted that randomization of the sampling procedure was employed to minimize the effect of selection bias, thus ensuring the representativeness and validity of the sample, which is important for the generalization of the results.

Sample Size Calculation

The sample size was calculated using Yamane's formula (1967) for a finite population, based on the total population of 90,000 bachelor's students at King Faisal University and an approximately 4.95% margin of error. The calculation yielded a minimum sample size of approximately 406.28 students, which was rounded up to a minimum of 407 students as the final required sample, including 177 male students (43.5%) and 230 female students (56.5%). For ensuring that each eligible student had an equal probability of selection. With a 10% non-response rate anticipated, the sample should be increased to compensate for students who may decline participation or submit incomplete questionnaires. The adjusted sample size can be calculated as a maximum of 453 students**.**

Inclusion Criteria

1. Students currently in a bachelor's degree program at King Faisal University, Al-Ahsa Governorate from the four levels.
2. > 18 years of age or older.
3. Are enrolled as full-time university students during the study period.
4. Are able to read and understand the study questionnaire.
5. Agree to participate voluntarily and provide informed consent.

Exclusion Criteria

1. Postgraduate students at King Faisal University.
2. Are on academic leave during the data-collection period.
3. Fail to provide sufficient responses for analysis.

Study Instruments: Three tools for data collection were used.

1. Demographic Data Sheet

A structured demographic data sheet was used to collect participants' basic characteristics, including gender, academic specialization, and academic year. Gender will be categorized as male or female, specialization as scientific or theoretical, and academic year as first, second, third, or fourth year.

2. The Mental Health Scale

It was prepared by Albohnayh et al. (2024) to examine the psychological well-being of university students. The scale consists of 16 items on three dimensions: social dimension, self-acceptance dimension, and emotional dimension. The social dimension (5 items) assesses the individual's ability to establish positive and supportive social relationships; the self-acceptance dimension (5 items) assesses acceptance and respect of oneself, thoughts, and behaviors; and the emotional dimension (6 items) assesses the individual's ability to control emotions and impulsivity.

The Scale Validity and Reliability

The content validity of the Mental Health Scale developed by Albohnayh et al. (2024) was assessed by calculating the Item Content Validity Index (I-CVI) and Scale Content Validity Index (S-CVI). The scale consists of 16 items distributed across three dimensions: social dimension (5 items), self-acceptance dimension (5 items), and emotional dimension (6 items). Items with an I-CVI below the recommended threshold of 0.78 were reviewed and revised. The scale demonstrated excellent content validity, with the S-CVI exceeding 0.80, indicating adequate agreement among experts regarding the relevance and representativeness of the scale items.

In addition, the reliability of the Mental Health Scale was evaluated using Cronbach's alpha coefficient to assess the internal consistency of the Likert-scaled items. The reliability analysis was conducted for the overall scale and its three dimensions: social, self-acceptance, and emotional. The results demonstrated satisfactory-to-excellent internal consistency of the scale. A Cronbach's alpha coefficient was 0.83 for the 16 items of the scale, while, regarding across the three dimensions (A Cronbach's alpha coefficient was 0.78, 81, 92), respectively.

2. Quality of Life Scale

The Quality of Life Scale is based on the World Health Organization Quality of Life–Brief version (WHOQOL-BREF), which was translated by Abdel-Khalek (2008). The scale assesses quality of life across several domains (26 items), including general life (1 item), general health (1 item), psychological health, physical health, social relationships, and environment. The psychological health dimension includes 6 items assessing enjoyment of life, meaning in life, concentration, satisfaction with body appearance and self, and negative feelings such as sadness, hopelessness, anxiety, and depression. The physical health dimension (7 items) assesses pain, need for medical treatment, energy, mobility, sleep, and ability to perform daily activities. The scale also assesses social relationships through 3 items concerning the ability to establish successful relationships, satisfaction with social life, and receiving support from friends. The environment domain (8 items) covers safety, living environment, financial resources, access to information and health services, leisure opportunities, living conditions, and transportation.

Scale Scoring System: The five-point Likert scale was used to respond to the statement, and the scoring ranges from (1) to (5) based on the selection, with the correction as (always - score 5), (often - score 4), (sometimes - score 3), (a little - score 2), and (not at all - score 1) for positive statements, while it is reversed for negative statements, which are (3, 4, 15), and therefore, the score obtained on the scale ranges between (130) and (26).

Validity Calculation and Face Validity

The scale was pre-tested in a previous study for validity to determine its psychometric properties by determining the face validity by a group of qualified personnel in the field of psychology at King Faisal University to obtain their comments and suggestions regarding whether the items belong to the indicated axis, whether the language is appropriate, and what changes need to be made. As a result of validating the Quality of Life scale with the arbitrators, several phrases had to be changed (Albohnayh et al., 2024).

Internal Consistency (Structural Validity) and Reliability

The scale's internal reliability was established by calculating the Pearson coefficient of correlation on a sample size of (40) students. The value was obtained by calculating a Pearson coefficient for each item of the scale on the score of the statements to which they related. The scale's items demonstrated moderate to strong positive correlation ($p< 0.01$) with the scores of the majority of the items in the same scale. The Quality of Life scale demonstrated good overall reliability with a Cronbach's Alpha of 0.887 for the 23 total items. The scale demonstrated good reliability with the reliability coefficients ranging from 0.755 to 0.810 across different dimensions, supporting the reliability of the findings (Albohnayh et al., 2024).

Data Collection Process

Data were collected from eligible students at King Faisal University during the second semester of 2026 over a three-month period, following approval from the ethics committee and obtaining official permission from the university. A list of students was prepared to start the simple randomization technique, and then eligible participants were invited to participate in the study and provided with adequate information regarding the study purpose and procedures. After providing informed consent, participants completed self-administered questionnaire**s** electronically through the Google Forms platform. Participants were given sufficient time to complete the questionnaire, with an estimated minimum completion time of 20 minutes. The researcher was available to provide clarification regarding the questionnaire items, when necessary, without influencing participants' responses. Upon completion, the submitted questionnaires were reviewed for completeness, coded, and entered into the appropriate statistical software for analysis. All collected data were maintained in a confidential and secure manner and used exclusively for research purposes.

Statistical Analysis Plan

The data were analyzed using appropriate descriptive and inferential statistical procedures. The frequencies and percentages were used to present the data distribution among the study participants. The data were also analyzed using the means and standard deviations. Pearson's correlation coefficient (r) was used to examine the relationship between the mental health and quality of life indicators and the demographic variables. A one-sample t-test was used to examine whether the mean values of the mental health and quality of life indicators differ significantly from the hypothesized value or the scale midpoint. An independent-samples t-test was conducted to determine if the mean mental health and quality of life are significantly different

between the two independent groups defined by dichotomous demographics. For the remaining demographical variables with more than two groups, One-way Analysis of Variance (ANOVA) was used to determine whether there is a statistically significant difference in the mean scores of social interaction and quality of life across the groups. Finally, multiple linear regression analysis was carried out to examine how much mental health and other predictor variables can predict the quality of life. The level of significance was set at $p < 0.05$.

Ethical Considerations

The ethical approval for this research was obtained from the Institutional Review Board (IRB) Committee before collecting data from King Faisal University. The study was conducted on a voluntary basis, and all participants were informed about the study's objectives, protocols, possible benefits, and their rights. Students provided informed consents before filling out the questionnaires. All participants had the right to stop responding if they decided so at any time during the study without any negative consequences or penalties. The research did not involve any form of discrimination, and participants' responses were kept strictly confidential and anonymous. The collected information was used solely for research purposes and was reported in aggregate form so that participants cannot be identified. The study involved minimal risk to participants, who were not exposed to any procedures beyond completing the study questionnaire. All data was handled and reported honestly, with appropriate measures taken to ensure research integrity, accuracy, and protection of participants' rights and welfare.

RESULTS AND DATA ANALYSIS

Table 1 shows that females represented the majority of participants (230, 56.5%), compared with males (177, 43.5%). Regarding specialty, 53.3% (217) were enrolled in theoretical specialties, while 46.7% (190) were in scientific specialties. Concerning academic year, first-year students represented the largest proportion (228, 56.0%), followed by third-year students (72, 17.7%), fourth-year students (59, 14.5%), and second-year students (48, 11.8%).

Table 1: Distribution of the Studied University Students According to Their Demographic Characteristics at King Faisal University (N=407)

Demographic Characteristics	No.	%
Gender		
Female	230	56.5
Male	177	43.5
Specialty		
Scientific	190	46.7
Theoretical	217	53.3
Academic Year		
First	228	56.0
Third	72	17.7
Second	48	11.8
Fourth	59	14.5

According to Table 2, the majority of students have a predominantly average and good level of mental health, which totals 45.5%, and 9% of students reported poor mental health. Concerning quality of life, about half of students (49.1%, 200) have an average level of quality of life, and more than two-thirds reported a good level of quality of life, while 8.6% (35) have a poor level.

Table 2: Level of Mental Health and Quality of Life among Studied Students at King Faisal University (n=407)

Levels	Mental Health		Quality of Life	
	No.	%	No.	%
Poor	37	9		8.6
Average	185	45.5	35	49.1
Good	185	45.5	200	42.3

Table 3 demonstrates that the mean scores of all mental health dimensions were significantly higher than their respective hypothetical means ($p = 0.001$). The overall mental health score was 45.94 ± 8.79, with a mean percentage of 71.8%, indicating a generally favorable level of mental health among participating students. Similarly, all Quality of Life dimensions showed statistically significant differences from their hypothetical means ($p = 0.001$). The total quality of life score was 74.48 ± 15.29, with a mean percentage of 71.6%. Also, the highest mean percentage was observed for general life (78.7%), followed by general health (77.5%), while physical health recorded the lowest percentage (63.7%). Overall, the findings indicate generally favorable levels of both mental health and quality of life among the university students at King Faisal University.

Table 3: Differences in Mental Health and Quality of Life among Students at King Faisal University

Dimensions of Mental Health	Mean	SD	Mean %	Hypothetical mean	t	p
Social	12.51	3.24	62.6	10	4.054	0.001*
Self-acceptance	15.78	3.99	78.9	10	7.696	0.001*
Emotional	17.64	3.81	73.5	12	7.842	0.001*
Total	45.94	8.79	71.8	32	8.631	0.001*
Dimensions of Quality of Life						
General life	3.15	1.06	78.7	2	4.322	0.001*
General health	3.1	1.1	77.5	2	4.053	0.001*
Physical health	14.85	4.34	63.7	14	1.045	0.001*
Psychological health	18.45	4.82	76.9	12	7.177	0.001*
Social relations	7.81	2.19	65.0	6	4.118	0.001*
Environmental	27.23	6.50	75.6	16	9.353	0.001*
Total	74.48	15.29	71.6	52	8.036	0.001*

Table 4 indicates that there were no statistically significant differences in all dimensions of quality of life or mental health according to gender or specialty, as all reported p-values were greater than 0.05. Regarding gender, the total quality of life scores were similar among females (74.56 ± 14.42) and males (74.38 ± 16.40; $p = 0.964$), while total mental health scores were also nearly identical (45.95 ± 8.50 vs. 45.92 ± 9.18; $p = 0.990$). Similarly, according to specialty, no significant differences were found in total quality of life between scientific (73.89 ± 16.28) and theoretical students (75.00 ± 14.39; $p = 0.781$) or in total mental health (45.72 ± 9.31 vs. 46.13 ± 8.32; $p = 0.858$). These findings suggest that gender and specialty were not significantly associated with students' mental health or quality of life in this sample.

Table 4: Differences in Dimensions of Quality of Life and Mental Health According to Gender and Specialty of Students at King Faisal University

Dimensions	Female		Male		t	p-value	Scientific		Theoretical		t	p-value
	Mean	SD	Mean	SD			Mean	SD	Mean	SD		
General life	3.20	1.01	3.07	1.12	0.472	0.639	3.06	1.10	3.22	1.03	0.582	0.563
General health	3.03	1.18	3.12	1.16	0.298	0.767	2.98	1.20	3.15	1.15	0.560	0.577
Physical health	17.55	3.78	18.24	4.96	0.606	0.547	17.72	4.76	17.96	3.95	0.213	0.832
Psychological health	18.55	4.73	18.32	4.95	0.184	0.855	18.38	5.02	18.51	4.65	0.104	0.917
Social relations	7.64	2.18	8.02	2.18	0.675	0.502	7.70	2.23	7.90	2.15	0.354	0.725
Environmental	27.62	6.40	26.73	6.60	0.530	0.598	27.03	6.77	27.41	6.26	0.226	0.822
Total QoL life	74.56	14.42	74.38	16.40	0.045	0.964	73.89	16.28	75.00	14.39	0.280	0.781
Social	12.41	3.24	12.64	3.25	0.275	0.785	12.41	3.28	12.61	3.22	0.238	0.812
Self-acceptance	16.02	3.83	15.47	4.19	0.531	0.598	15.52	4.23	16.02	3.77	0.483	0.631
Emotional	17.51	3.66	17.80	3.99	0.293	0.770	17.79	3.96	17.50	3.67	0.294	0.770
Total MH	45.95	8.50	45.92	9.18	0.013	0.990	45.72	9.31	46.13	8.32	0.180	0.858

Table 5 demonstrates statistically significant positive correlations between all dimensions of quality of life and all dimensions of mental health ($p = 0.001$). The correlation coefficients ranged from **r =** 0.20 to r = 0.76, indicating weak to strong positive associations. The strongest correlation was observed between psychological health and self-acceptance (r = 0.76), while the weakest correlation was found between social relations and emotional health (r = 0.20). Overall, the findings indicate that higher levels of mental health were significantly associated with better quality of life among students at King Faisal University.

Table 5: The Correlation Coefficient between Dimensions of Quality of Life and Mental Health among Students at King Faisal University

Dimensions of Quality of Life	Social		Self-acceptance		Emotional	
	R	p	r	p	r	p
General life	0.34	0.001*	0.58	0.001*	0.27	0.001*
General health	0.22	0.001*	0.49	0.001*	0.26	0.001*
Physical health	0.47	0.001*	0.51	0.001*	0.36	0.001*
Psychological health	0.45	0.001*	0.76	0.001*	0.37	0.001*
Social relations	0.54	0.001*	0.32	0.001*	0.20	0.001*
Environment	0.46	0.001*	0.62	0.001*	0.36	0.001*

Table 6 shows that quality of life and mental health did not differ significantly according to gender, specialty, or academic year, as all reported p-values were greater than 0.05. Quality of life was similar between females (74.56 ± 14.42) and males (74.38 ± 16.40; $p = .96$), as well as between scientific specialty (73.89 ± 16.28) and theoretical specialty students (75.00 ± 14.39; $p = .469$). Similarly, no significant differences were observed according to academic year ($p = .91$). Mental health also showed no

significant differences by gender **(**p = .90**),** specialty **(**p = .63**),** or academic year **(**p = .85**).** However, a strong positive and statistically significant correlation was found between mental health and quality of life (r = .73, p = .001)**,** indicating that higher levels of mental health were associated with better quality of life among the students.

Table 6: The Correlation between of Quality of Life and Mental Health According to the Students' Demographic Characteristics at King Faisal University

Personal Characteristics	**Quality of Life**				**Mental Health**			
	Mean	**SD**	**F**	**p-value**	**Mean**	**SD**	**F**	**p-value**
Gender			0.001	.96			0.001	0.9
Female	74.56	14.42			45.95	8.50		
Male	74.38	16.40			45.92	9.18		
Specialty			.524	.469			0.22	0.63
Scientific	73.89	16.28			45.72	9.31		
Theoretical	75.00	14.39			46.13	8.32		
Academic Year			0.16	0.91			0.25	0.85
First	74.89	15.58			45.98	8.51		
Third	74.44	13.52			46.57	8.42		
Second	73.81	16.24			45.40	8.55		
Fourth	73.49	15.74			45.42	10.51		
Mental Health	**Quality Of Life**							
	r				**p-value**			
	0.73				0.001*			

Table 7 demonstrates that mental health was a significant positive predictor of quality of life among university students, with B = 1.20, SE = 0.05, t = 21.90, p = 0.001**,** and the regression model was statistically significant **(**F = 480.20, p = 0.001**).** Mental health explained 54% of the variance in quality of life (R^2 = 0.54)**,** indicating a substantial predictive effect. In contrast, the demographic characteristics related to gender (p = 0.898), specialty (p = 0.584), and academic year (p = 0.706) were not significant predictors of quality of life. The demographic model was not statistically significant **(**F = 0.22, p = 0.88**)** and explained only 0.2% of the variance (R^2 = 0.002). Overall, the findings indicate that mental health is a substantially stronger predictor of quality of life than the examined demographic characteristics of students at King Faisal University.

Table 7: Prediction Effect of Mental Health and Demographic Characteristics on Quality of Life (Quality of Life Predictors) Among Students at King Faisal University

Mental Health	**Effect on Quality of Life**			
	B	**S.E**	**t**	**p-value**
	1.2	0.05	21.9	0.001*
F	480.2			
P-value	0.001*			
R2	0.54			
Demographic Characteristics				
Gender	.208	1.620	.128	.898
Specialty	.905	1.653	.548	.584
Academic year	-.280-	.740	-.378-	.706
F	0.22			
P-value	0.88			
R2	0.002			

DISCUSSION

The present study found that students at King Faisal University had generally favorable levels of mental health and quality of life, with higher overall mean percentages for mental health and quality of life. With the highest mean percent for the self-acceptance dimension of mental health, within quality of life, general life and general health were the highest mean percent domains. Additionally, the statistically significant positive relationship between mental health and quality of life indicated that students with better mental health tended to report better quality of life. These findings suggest that, despite the academic and psychosocial demands associated with university life, the students in the current sample generally perceived their psychological well-being and quality of life positively (Chaudhry et al., 2024).

Moreover, this finding is consistent with recent evidence from King Khalid Saudi University populations of Alzahrani et al. (2025) emphasized the close interrelationship between mental health and health-related quality of life and highlighted mental health as a key determinant of students' overall well-being. Alzahrani et al. also identified anxiety/depression as an important factor associated with poorer health-related quality of life among Saudi university students, concluding that integrated university wellness policies should address mental health alongside broader health and lifestyle factors, supporting the importance of considering mental well-being as an integral component of student health. This was supported by the current study results that mental health was a significant predictor of quality of life, representing one of the most important results. Similarly, recent research among university students by Mahin et al. (2025) found that self-esteem, sleep quality, physical activity, and other behavioral factors were significantly associated with quality-of-life domains among university students and recommended campus-based interventions that prioritize mental health support.

Moreover, the results in the present study showed that all dimensions of mental health were positively and significantly correlated with the dimensions of quality of life. This finding is theoretically plausible because positive self-acceptance may contribute to emotional stability, positive self-perception, effective coping, and greater satisfaction with different areas of life. Conversely, psychological difficulties affect physical functioning, social relationships, and perceptions of the surrounding environment, thereby reducing overall quality of life (Zell & Johansson, 2024; Li et al., 2025).

On the same line, recent Saudi evidence supports this pattern: University students in Riyadh reported a significant association between mental health problems and poorer oral health-related quality of life, with students reporting more severe depression or anxiety demonstrating poorer quality-of-life scores (AlJameel et al., 2025). In addition, a 2024 systematic review and meta-analysis examining university students reported a significant relationship between mental health and quality of life, further supporting the multidimensional connection identified in the current study (Hebbal & Krama, 2024).

Furthermore, no statistically significant differences in overall mental health or quality of life were identified according to gender, specialty, or academic year in the current study. This suggests that, within the present population, students' quality of life was more closely related to their mental health status than to these basic demographic and academic characteristics. This interpretation is supported by recent Saudi evidence indicating that mental health difficulties may occur across different academic groups. For example, a 2024 study of university students in Jeddah reported high levels of depression and anxiety and found that these problems occurred across fields of study, with academic year not showing a consistent association with these mental health outcomes (Malebari et al., 2025). While, the study of Mahin et al. (2025) found significant gender-related differences in several quality-of-life domains. Such differences across studies may reflect variations in cultural context, instruments, sample composition, academic disciplines, and other unmeasured factors.

Overall, the most significant findings of this study is the strong and statistically significant relationship between mental health and quality of life and the substantial predictive contribution of mental health to quality of life, which supports the idea that universities should incorporate accessible mental health promotion, early identification of psychological difficulties, counseling services, self-acceptance and coping interventions, and supportive campus environments into student wellness programs (Soharwardi et al., 2025; Alharbi et al., 2025). In the same context, recent qualitative evidence from Saudi Arabia similarly emphasized the need for a university-wide approach to improving mental health support, reducing stigma, and increasing students' access to appropriate services (Alyousef & Alhamidi, 2025).

Limitations of the Study

This study has several limitations. Firstly, the researchers have used a cross-sectional design, which does not determine the cause-and-effect relationship between the variables. Hence, although the study proves that mental health predicts the quality of life, it cannot be claimed that having good mental health causes changes in an individual's quality of life. Secondly, the study has utilized self-reported measures, which can result in recall bias, response bias, or desirability bias. Thirdly, the study was conducted among the student population of one university, which cannot represent the perspective of all students studying in different Saudi universities. Fourth, the study examined a limited number of demographic characteristics—gender, specialty, and academic year—and, therefore, other potentially important determinants of quality of life were not assessed. Finally, because the data were collected at a particular period of students' academic lives, factors such as examination periods, academic workload, and temporary changes in students' psychological status may have influenced their responses.

Recommendations/ Further Studies

Based on the findings of the present study, King Faisal University should strengthen university-based mental health promotion and regular screening programs to facilitate early identification and appropriate referral of students experiencing psychological difficulties. The university should also enhance confidential counseling services and provide programs focusing on self-acceptance, coping skills, stress management, and emotional regulation. In addition, evidence-based approaches such as mindfulness, cognitive-based interventions, physical activity, and healthy lifestyle programs should be incorporated into student wellness services. Also, collaboration among university administrators, academic advisors, counselors, and healthcare professionals is recommended to establish a comprehensive student-wellness framework.

Future research should use longitudinal and experimental designs to clarify the temporal and causal relationship between mental health and quality of life and to evaluate the effectiveness and sustainability of mental health interventions. Further studies should examine additional factors that may explain the remaining 46% of unexplained variance in quality of life**,** including academic stress, sleep quality, physical activity, social support, resilience, and financial factors. Multicenter studies across Saudi universities are also recommended to improve the generalizability of findings. Qualitative and mixed-methods research could further explore students' experiences and barriers to accessing mental health services.

CONCLUSION

The present study concludes that students at King Faisal University demonstrated generally favorable levels of both mental health and quality of life, with overall mean percentages of 71.8% and 71.6%**,** respectively. Mental health and quality of life were found to be strongly and positively associated, with a significant overall correlation **(**$r = 0.73$, $p = 0.001$**).** Furthermore, all dimensions of mental health showed significant positive correlations with the dimensions of quality of life, indicating that better mental health was associated with better perceived quality of life. Most importantly, the regression analysis demonstrated that mental health was a significant positive predictor of quality of life**,** explaining 54% of its variance ($R^2 = 0.54$, $p = 0.001$)**.** In contrast, gender, specialty, and academic year did not significantly predict quality of life. These findings emphasize that mental health represents an important factor in students' overall quality of life, regardless of their basic demographic or academic characteristics. Therefore, strengthening mental health promotion and support within the university environment may represent an important approach to maintaining and improving students' quality of life.

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REFERENCES

[1] Abrams, Z. (2022, October 12). Student mental health is in crisis. Campuses are rethinking their approach. *Monitor on Psychology*, *53*(7). https://www.apa.org/monitor/2022/10/mental-health-campus-care

[2] Alahmadi, A. M. (2019). Prevalence of Anxiety among College and School Students in Saudi Arabia: A systematic review. *Journal of Health Informatics in Developing Countries*, *13*(1). Retrieved from https://jhidc.org/index.php/jhidc/article/view/237

[3] Albohnayh, A. S., Alshammari, W. G., Aldoreeb, M. S., Alsubaie, M. M., Alismail, A. M., & Almulla, M. O. (2024). The relative contribution of social interaction in predicting the quality of life among students of King Faisal University. *Revista de Gestão Social e Ambiental, 18*(1), 1–33. https://doi.org/10.24857/rgsa.v18n1-157

[4] Alharbi, A. A. A., Al-Mutairi, M. O., Al-Masad, S. M., Al-Mutairi, Y. S., Al-Yahya, S. A. A., Alhadlaq, F. A. A., Alsaeed, S. H., Alkhudhaur, A. M. A., & Albaqami, F. A. H. (2025). Mental health as a key determinant of quality of life: Evidence from interdisciplinary perspectives for well-being and thriving in society. *Journal of Medical and Life Science, 7*(3), 363–375.

[5] AlJaber M. I. (2020). The prevalence and associated factors of depression among medical students of Saudi Arabia: A systematic review. *Journal of family medicine and primary care*, *9*(6), 2608–2614. https://doi.org/10.4103/jfmpc.jfmpc_255_20

[6] AlJameel, A. B. H., AlSaleh, L. S., Bawazir, N. H., AlOmair, A. S., & AlMalki, S. A. (2025). Association between oral health-related quality of life and mental health among university students in Riyadh, Saudi Arabia. *Clinical Epidemiology and Global Health, 33*, 101984. https://doi.org/10.1016/j.cegh.2025.101984

[7] Alshehri, H., Alturkestani, R., Hijan, B., et al. (2024). The prevalence of existential anxiety and its association with depression, general anxiety, and stress in Saudi university students. *Middle East Current Psychiatry, 31*, 47. https://doi.org/10.1186/s43045-024-00435-4

[8] Alyousef, S. M., & Alhamidi, S. A. (2025). Nursing student perspectives on improving mental health support services at university in Saudi Arabia – a qualitative study. *Journal of Mental Health*, *34*(1), 31–37. https://doi.org/10.1080/09638237.2024.2361224

[9] Alzahrani, F., Zarbah, A., Asiri, A., Asiri, A., Alzahrani, S., Alqathradi, A., Korairi, H., Alshahrani, A., & Aliessa, M. (2025). Integrated Wellness Needs of Saudi University Students: Mental Health as a Key Determinant of Lifestyle and Quality of Life. *Psychiatry International*, *6*(3), 106. https://doi.org/10.3390/psychiatryint6030106

[10] Antaramian, S. (2017). The importance of very high life satisfaction for students' academic success. *Cogent Education, 4*(1), Article 1307622. https://doi.org/10.1080/2331186X.2017.1307622

[11] Calderón-Cruz, B., García-Sánchez, U., González-Oya, J. L., & Prieto-Campo, Á. (2025). Factors related to well-being and psychological health in nursing students: A cross-sectional survey. *International journal of nursing studies advances*, *9*, 100421. https://doi.org/10.1016/j.ijnsa.2025.100421

[12] Chaudhry, S., Tandon, A., Shinde, S., & Bhattacharya, A. (2024). Student psychological well-being in higher education: The role of internal team environment, institutional, friends and family support and academic engagement. *PloS one*, *19*(1), e0297508. https://doi.org/10.1371/journal.pone.0297508

[13] Chu, T., Liu, X., Takayanagi, S., Matsushita, T., & Kishimoto, H. (2023). Association between mental health and academic performance among university undergraduates: The interacting role of lifestyle behaviors. *International journal of methods in psychiatric research*, *32*(1), e1938. https://doi.org/10.1002/mpr.1938

[14] Gautam, S., Jain, A., Chaudhary, J., Gautam, M., Gaur, M., & Grover, S. (2024). Concept of mental health and mental well-being, it's determinants and coping strategies. *Indian journal of psychiatry*, *66*(Suppl 2), S231–S244. https://doi.org/10.4103/indianjpsychiatry.indianjpsychiatry_707_23

[15] Hebbal, Y., & Krama, K. C. (2024). The mental health and its relationship with the quality of life among Algerian university students: Systematic review and meta-analysis. *Psychology and Education, 61*(2), 1031–1040.

[16] Li, C., & Gu, W. (2025). Factors influencing the negative emotions of undergraduate medical students. *Frontiers in psychology*, *16*, 1653246. https://doi.org/10.3389/fpsyg.2025.1653246

[17] Li, Y., Guo, L., Yang, G., & Wu, Y. (2025). Effects of self-acceptance on prosocial behavior: The mediating role of self-esteem. *Frontiers in Psychology, 16*, 1643464. https://doi.org/10.3389/fpsyg.2025.1643464

[18] Magomedova, A., & Fatima, G. (2025). Mental Health and Well-Being in the Modern Era: A Comprehensive Review of Challenges and Interventions. *Cureus*, *17*(1), e77683. https://doi.org/10.7759/cureus.77683

[19] Mahin, M., Rahman, M. S., Rahman, S. M., Ilias, F. B., Hasan, M. M., Akter, M., & Mredul, A. R. (2025). Factors impacting university students' quality of life. *PloS one*, *20*(8), e0329851. https://doi.org/10.1371/journal.pone.0329851

[20] Makhlouf, A. (2021). Saudi schools' openness to change in light of the 2030 Vision. *American Journal of Educational Research, 9*, 52–60. https://doi.org/10.12691/education-9-1-6

[21] Malebari, A. M., Alamoudi, S. O., Al-Alawi, T. I., Alkhateeb, A. A., Albuqayli, A. S., & Alothmany, H. N. (2024). Prevalence of depression and anxiety among university students in Jeddah, Saudi Arabia: Exploring sociodemographic and associated factors. *Frontiers in Public Health, 12*, 1441695. https://doi.org/10.3389/fpubh.2024.1441695

[22] Malibary, H., Zagzoog, M. M., Banjari, M. A., Bamashmous, R. O., & Omer, A. R. (2019). Quality of Life (QoL) among medical students in Saudi Arabia: a study using the WHOQOL-BREF instrument. *BMC medical education*, *19*(1), 344. https://doi.org/10.1186/s12909-019-1775-8

[23] Porru, F., Schuring, M., Bültmann, U., Portoghese, I., Burdorf, A., & Robroek, S. J. W. (2022). Associations of university student life challenges with mental health and self-rated health: A longitudinal study with 6 months follow-up. *Journal of Affective Disorders, 296*, 250–257. https://doi.org/10.1016/j.jad.2021.09.057

[24] Sarker, S., Islam, M., & Nuhan, A. (2026). Mental health and academic performance in university students: A literature review. *South Asian Journal of Social Studies and Economics, 23*, 190–207. https://doi.org/10.9734/sajsse/2026/v23i11250

[25] Soharwardi, M. A., Anjum, R., Rana, A., Sarwar, J., Rahat, S., Waseem, S., & Iqbal, M. S. (2025). Mental health and empowerment of university students: mediating role of mental health awareness. *BMC psychology*, *14*(1), 18. https://doi.org/10.1186/s40359-025-03726-5

[26] World Health Organization. WHOQOL (2023). Measuring Quality of Life. Available at http://www.who.int/healthinfo/survey/whoQoLqualityoflife/en/ . Accessed on 23 June, 2023

[27] Zell, E., & Johansson, J. (2024). The association of self-esteem with health and well-being: A quantitative synthesis of 40 meta-analyses. *Social Psychological and Personality Science, 16*, 412–421. https://doi.org/10.1177/19485506241229308

[28] Zou, D., Lin, Z., Chen, C., & Yu, H. (2024). Factors affecting the wellbeing of mid-achieving university students: a case study from China. *Frontiers in psychology*, *15*, 1465209. https://doi.org/10.3389/fpsyg.2024.1465209