

## ORIGINAL ARTICLE

## Quality of Life of Medical and Nursing Students of a Private Institute of Wah Cantt

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## ABSTRACT

**Objective:** Quality of life is an encompassing term dealing with multiple aspects of life, including physical, social, environmental & psychological domains. It is a measurement of the gap between what people wish to have & what they possess. The objectives were to assess the quality of life among medical & nursing students and evaluate the association of various demographic factors with the quality of life.

**Study Design:** Cross-sectional study.

**Place and Duration of Study:** The study was carried out at the Department of Community Medicine, Wah Medical College and Institute of Nursing, Wah Cantt, Pakistan from January 2022 to June 2022.

**Methods:** The study was conducted on 282 students; 188 medical and 94 nursing students, selected by applying systematic random and convenient sampling techniques respectively. A pre-tested questionnaire, including demographic information and questions related to the quality of life-based on the English version of WHOQOL-BREF, was used for data collection. The data was analyzed using SPSS version 23; frequencies and percentages of categorical variables were calculated. The mean scores of items within each domain were used to calculate the domain's score. To measure better scores in different domains, the percent score of each domain was calculated. The higher scores indicate a higher quality of life. An independent sample t-test was used to assess the association of factors like gender, age group, and place of living with the quality of life. The *P* value of less than 0.05 was considered significant.

**Results:** The score of the environmental domain was reported highest, followed by the physical, psychological, and social domains. The students living with their families had a better quality of life than the hostelites, *P* value of 0.009.

**Conclusion:** It is ascertained that the quality of life of medical and nursing students is above average. Gender difference has no effect, but living with families favors a better quality of life among students.

**Keywords:** Cross-Sectional Study, Medical Students, Nursing Students, Quality of Life.

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## Introduction

Quality of life is a multidimensional concept which is defined by WHO as "an individual's perception of their position in life in the context of the culture and

value system in which they live and relation to their goals, expectations, standards and concerns."<sup>1</sup> Quality of life is a multifaceted concept comprising of psychological, physical, social and environmental components.<sup>1,2,3</sup>

University life is a time of doubts and uncertainties which influence people differently. Medical students are knowledgeable and highly influential people who struggle daily with the sentiments of people. During their academic years in medical university, they face difficulties interacting with patients, their diseases and vulnerability.<sup>4</sup> This leads to depression, apprehension, and worsening of mental health.

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Numerous factors can exaggerate this situation which includes academic overload, hectic schedule, long classes, and difficulty in managing daily routine.<sup>1,4,5</sup> Medical students perceive devoting time to personal welfare as being less important to academic commitments. Not only medical students but nursing students have also faced stressed situations due to academics and workload, which badly affect their quality of life.<sup>6</sup>

Physical activity, self-confidence, mental strength and self-discipline are effective in improving the quality of life of adults.<sup>2</sup> Moreover, implementation of mentoring program from the very beginning of educational life, training of students about self-care, active participation of students in social activities and continuous research increases the quality of life of students.<sup>7</sup> Medical education is very thought-provoking course and for producing highly expert and competent healthcare individuals sound mental health of students is required because they have to deal with patients and quality of managing patients will be compromised if the quality of life of healthcare individuals is inadequate. It has been found that there is an increased tendency of mental disorders among those with poor quality of life. The study aims to assess quality of life among medical and nursing students; and evaluate the association of various demographic factors with their quality of life.

## Methods

A cross-sectional study was conducted at the Department of Community Medicine, Wah Medical College and Institute of Nursing, Wah Cantt, Pakistan from January 2022 to June 2022 after taking approval from the institutional ethical committee of Wah Medical College and Institute of Nursing, Wah Cantt vide letter no: WMC/ERC/IRB/020 dated December 01, 2021. The sample size was calculated using Epi Tools, an epidemiological open-source calculator with confidence interval of 0.95, means and variances of 2 groups  $61.875 \pm 15.47$  and  $65.225 \pm 13.725$ , respectively.<sup>3</sup> The ratio of sample size was 2 and, power was 0.8. The sample size came out to be 282. The 188 medical students were selected using a systematic random sampling technique, and 94 nursing students using convenience sampling technique as enrolled nursing

students in the institute were not very large. Undergraduate students of 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> year MBBS were included in the study while undergraduate nursing students of all study years were included. Undergraduates of 1<sup>st</sup> year MBBS were excluded from the study because of their non-availability.

A questionnaire was used as a data collection tool. The first part of the questionnaire included student category, age group, gender, year of study, living arrangement, and family monthly income. The second part contained questions related to quality of life categorized in four domains: physical, social, environmental & psychological health based on English version of WHOQOL-BREF 2. The questions were responded to on a 5-point Likert scale; all questions were scored from 1 to 5 except question numbers 3, 4 and 25, which were scored in reverse order. The reliability of the questionnaire, tested by determining Cronbach's alpha, was 0.79. After taking informed consent, the questionnaires were distributed to the students of each year, and it was ensured that they filled those by themselves; confidentiality of data was preserved. Descriptive statistics, including frequencies and percentages of categorical variables, were calculated. The mean scores of items within each domain was used to calculate domains' score. The scores of different domains were converted into the percent scores for better understanding and comparison. The higher scores indicate a higher quality of life. An Independent sample t-test was applied to determine the effect of gender, age group, and place of living on the quality of life. The *P* value of less than 0.05 was considered significant.

## Results

The study included 282 students; 188(66.7%) were medical students, and 94(33.3%) were nursing students. The sociodemographic characteristics are displayed in Table 1.

Mean scores and standard deviations of physical, psychological, social, and environmental domains of quality of life among students are shown in Table 2. The mean scores of all the domains were assessed by a total score of all respective domains and it was found that the score of the environmental domain was highest, followed by the physical, psychological

**Table 1: Sociodemographic features of students**

S.No	Sociodemographic characteristics		Frequency	Percentage
1	Gender	Male	97	34.4%
		Female	185	65.6%
2	Living arrangement	With family	136	48.2%
		Without family	146	51.8%
3	Parents income	< 50,000 PKR	55	19.5 %
		50,000-100000 PKR	124	44%
		Above 100000 PKR	103	36.5%
4	Age group of students	17-21 years	154	54.6%
		22-26 years	128	45.4%

**Table 2: Descriptive statistics of domains of quality of life**

S. NO	Quality of life	Mean scores	Standard Deviation	Percent score
1	Physical domain	23.57	4.20	67.34
2	Psychological domain	19.68	3.99	65.60
3	Social domain	7.03	1.80	58.58
4	Environmental domain	27.04	5.26	67.60
5	Quality of life	77.21	12.75	65.99

and social domains.

Various factors like age group, gender, and living arrangement were assessed in determining their effect on quality of life. The only significant

difference in the quality of life is related to the living arrangement of students, that is those students who lived with their families have a better quality of life. The results are shown below in the Table 3.

**Table 3: Independent t test results of various factors on quality of life among medical and nursing students**

S.No	Factors		Mean	Standard deviation	P value
1	Gender	Male	78.02	13.21	0.452
		Female	76.79	12.52	
2	Age group	17-21 years	77.31	12.40	0.891
		22-26 years	77.10	13.21	
3	Living arrangement	Live with family	79.24	11.69	0.009
		Live without family	75.32	13.44	

## Discussion

Medical and nursing students have to deal with patients during their training as well as afterwards and these students are more likely to be mentally and emotionally affected due to academics and hectic schedules. For the provision of quality health care services, both the doctors and nurses should have a good quality of life, so we aimed to evaluate the physical, psychological, sociological and environmental domains as components of quality of life of medical and nursing students. The mean score of the environmental domain was the highest followed by physical, psychological and social

domains. The result is supported by the studies carried out by Naseem S et al, Malibary H et al., Ameer MH et al. and Karishna GA et al. According to them, environmental scores were reported highest among medical students.<sup>1,7-9</sup> Highest environmental score indicates that the physical environment, health services, leisure activities, transport facilities provided in the college are appropriate. Moreover, as the college is a private institute and mostly students belong to families having good socioeconomic status so finance is not a concern for them. The social and psychological domain scores of these students are low. Similar results were observed by the studies

conducted by Anthony J et al and Latas M et al; the underlying reason for this may be that the students don't maintain a well-balanced social life as they have busy schedule and prioritize their studies and exams above all other factors in life.<sup>10,11</sup> They become stressed and more likely to have anxiety and depression while doing studies.<sup>6,9</sup> These students need mentoring and counseling services which can help them to relieve from anxiety and stress. Education in self-care is also required so that they can overcome the problems encountered during their studies.

A comparison was made among students residing with their families versus those residing in hostels, which discloses that students living with their families have a better perception about the quality of their lives than those living in hostels. The results are favored by the research conducted by Biswas S et al. and Mahmoud et al. according to them, students living away from families are more concerned about environment, means students in hostels are affected from factors of belongingness.<sup>12,13</sup> Students residing in hostels are usually more exhausted due to hectic routine and extensive overload of studies compared to the students living in their homes, enjoying comfort and hence experience lower levels of anxiety, stress, depression and other factors.

The difference in quality of life is also assessed in terms of gender but no difference was found, which is contradictory to the results depicted in various studies carried out by Naseem et al., Angelo et al., Latas et al., Barros et al, Abu-elenin et al. and Ayoob et al. According to these researches male students perceive better quality of life as compared to female students.<sup>1,6,11,14-16</sup> The reasons might be more anxiety and depression due to studies are seen among females<sup>1,11</sup>. Moreover, male students are involved in physical activities and they are also active and strong-willed in their daily lives.<sup>15,16</sup> The studies conducted by Malibary et al. and Ali et al. shows similar results regarding effect of gender on quality of life. According to these there is no difference in the perception of quality of life among male and female medical and nursing students.<sup>7,17</sup>

There are still specific weaknesses that could be overcome in future research. As the sample is taken from a single medical college, the generalizability of

the results might not be possible. Furthermore, if the qualitative component is added to the questionnaire, students' perception of their quality of life might be more elaborated. Despite these limitations, the study opens new horizons for medical researchers to find robust and helpful methods for improving the quality of life of medical and nursing students of Pakistan.

### Conclusion

It is ascertained that the quality of life of medical and nursing students is above average. Gender difference has no effect, but living with families favors a better quality of life among students.

### Recommendations

Specific measures must be implemented, like vigorous mentoring program for all students, provisions of extracurricular activities in between block examinations, counseling services and financial support. These measures will improve students' wellbeing and increase competency in providing health care services.

### Authors Contribution

**SSI:** Idea conception, data analysis, results and interpretation

**KWK:** Study designing

**SN:** Data collection

**RM:** Data collection

**MR:** Manuscript writing and proof reading

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