

Research Article

Career Satisfaction and Its Impact on Health Related Quality of Life among Undergraduate Medical Students of Lahore

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Abstract

Background: Career satisfaction plays a crucial role in influencing academic performance and health-related quality of life (HrQoL) among medical students. However, limited evidence exists on this relationship in low- and middle-income countries, including Pakistan.

Objectives: To assess career satisfaction and its association with HrQoL among undergraduate medical students in Lahore.

Methods: A total of 373 undergraduate medical students were recruited using convenience sampling. Data were collected electronically through a structured questionnaire assessing career satisfaction and HrQoL. Descriptive statistics summarized participants' characteristics. Spearman's rank-order correlation was used to evaluate associations between study variables, while the Mann–Whitney U test compared self-rated health across groups, including gender.

Results: Among participants, 61.4% were aged ≤ 21 years and 38.6% were > 21 years. Males constituted 49.1% and females 50.9% of the sample. Medicine was the first career choice for 65.4% of students. Overall, 82.3% rated their general health as good, while 17.7% rated it as fair or poor. Additionally, 60.1% stated they would choose medicine again, 55.5% would recommend it to others, 66.1% were satisfied with medicine as a career, and 53.3% considered it an ideal profession. Significant positive correlations were observed between career satisfaction indicators and self-rated health ($r = 0.145-0.223$; $p < 0.05$). No significant difference in self-rated health was found between students who chose medicine as their first choice and those who did not ($p = 0.967$). However, male students reported significantly better health than females ($p = 0.009$). Major contributors to dissatisfaction included the lengthy training period, stress, and emotional exhaustion.

Conclusion: Career satisfaction is positively associated with HrQoL among medical students. Longitudinal studies are needed to explore the long-term effects of career satisfaction on HrQoL.

Keywords: Career satisfaction, Health-related quality of life, Medical students

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Introduction

Students may choose to study medicine with specific goals in mind, and these goals can be classified into three major categories, namely, humanitarian reasons, social reasons or science reasons. Self-respect, desire in helping others, and financial incentives are the main motivators for medical students from low-to-middle income countries to study medicine. Students from upper-middle income countries are mainly motivated by social reasons and parents' wishes.¹

In Pakistan, the main reasons for choosing medicine include parents' wishes, hope for a better career, respect of profession and financial stability.¹ As personal preference is not the main reason for choosing medicine, we see many students with a lack of satisfaction related to their careers, resulting in burnout and mental health issues among medical students, forcing some of them to drop out of college.^{2, 3}

We define career satisfaction as an overall sense of fulfillment and accomplishment felt by a person in relation to his or her career. Quality of life (QoL) is defined by the World Health Organization (WHO) as a subjective evaluation of a person's perception of the reality of their goals viewed through the lens of their culture and value systems.¹ Job/career satisfaction accounts for one-fourth of lifesatisfaction which gives an idea about quality of life.¹



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Medical students are more vulnerable to depressive symptoms than trainees and residents, as well as their colleagues working in other disciplines.¹ In a multi-center study of US medical students, nearly half of the students reported burnout, while 11.2% reported suicidal thoughts. They discovered that burnout and low mental quality of life were independent predictors of suicidal thoughts.^{2, 3} However, career satisfaction is significantly associated with organizational commitment⁴, which implies that medical students who are satisfied with their career choices tend to perform better than those who regret choosing medicine.

Although career satisfaction is directly related to quality of life, which in turn relates to better academic performance and patient care, there are few studies in Pakistan on the impact of career satisfaction on the quality of life of undergraduate medical students. In a Jordanian study, 58.8% of participants answered that they would study medicine again, and 56.4% of participants considered medicine as an ideal profession. However, 76% of the participants stated stress, lengthy journeys, and frequent examinations as the main causes for regret on studying medicine.¹⁰

We aim to determine career satisfaction and its impact on health-related quality of life (HrQoL) among undergraduate medical students of Lahore.

Methods

This cross-sectional study was conducted for 6 months in Lahore. Participants were given the questionnaire via Google Forms using various social media platforms. Data were collected between May 7, 2024, and July 24, 2024, using a convenience sampling method. The study included 373 undergraduate medical students from various medical colleges in Lahore. Inclusion criteria were students enrolled in the MBBS program, from first to final year. Students in non-MBBS programs were excluded to maintain the focus on the targeted population. Convenience sampling was utilized to recruit participants. The sample size of 373 was calculated using the WHO sample size calculator, based on an anticipated population proportion of 0.588, with a 95% confidence interval and 0.05 absolute precision, referencing Khanfar et al.'s (2023) study¹⁰ on career regret and HrQOL among medical students.

Data were collected over 3.5 months via a structured online questionnaire. A pilot test with 20 participants was conducted to ensure clarity and effectiveness, with these participants excluded from the final analysis to avoid bias.

Variables included were sociodemographic factors: age (≤ 21 or > 21 years), gender, year of study, university, living condition (day scholar/ hostelite), parents' involvement in the medical field.

Academic Factors: Medicine as first choice, study hours, sleep hours. Career-Related Factors: Career choice

satisfaction, intention to drop out.

Health-Related Quality of Life (HrQOL): General health perception, physical health, mental health.

Career Satisfaction: Satisfaction with medicine as a career.

HrQOL was assessed using the CDC's HrQOL-14 scale, which measures health across multiple domains, including general health, physical and mental health, and activity limitations. For this study, six key items were used: the four core questions and two items on depression and anxiety.

Data were analysed using SPSS software version 27. Descriptive Statistics: Frequencies, percentages, means, and standard deviations were calculated for demographic and other key variables. Spearman's Rank-Order Correlation: Used to assess the strength and direction of relationships between decision to choose medicine again and self-rated health variables and self-rated general health. Mann-Whitney U Test: Employed to compare distributions of self-rated health between self-rated health between those who chose medicine as their first choice and those who did not and specifically examining the impact of medicine as a first choice and gender differences on HrQOL.

These analyses were chosen based on the data characteristics and research questions, providing insight into the associations between career satisfaction and HrQOL among medical students.

Results

Among the 373 participants, 61.4% were aged ≤ 21 years, and 38.6% were > 21 years. The gender distribution was nearly equal, with 49.1% males and 50.9% females. The majority of respondents were from King Edward Medical University (56%), followed by Allama Iqbal Medical University and Services Institute of Medical Sciences (8.8% each). Fourth-year medical students made up the largest group (32.2%), followed by third-year students (24.9%). Most participants (70.5%) did not have parents who were doctors, and 56.3% were day scholars. Additionally, 65.4% of participants had medicine as their first choice, and 82.3% rated their general health as good, while 17.7% rated it as fair/poor.

A majority of participants (60.1%) would choose medicine again, and 55.5% would recommend it to others. Satisfaction with studying medicine was reported by 66.1%, and 53.3% considered it their ideal career. The most common reasons for dissatisfaction were the lengthy journey (22.5%), stress (21.7%), and emotional drainage (15.8%). While 66.5% had never or seldom considered dropping out, 5.6% always thought about it. Spearman's correlation revealed a significant positive association between the decision to choose medicine again and self-rated health ($\rho = 0.150$, $p = 0.004$). A similar positive correlation was found between recommending medicine to

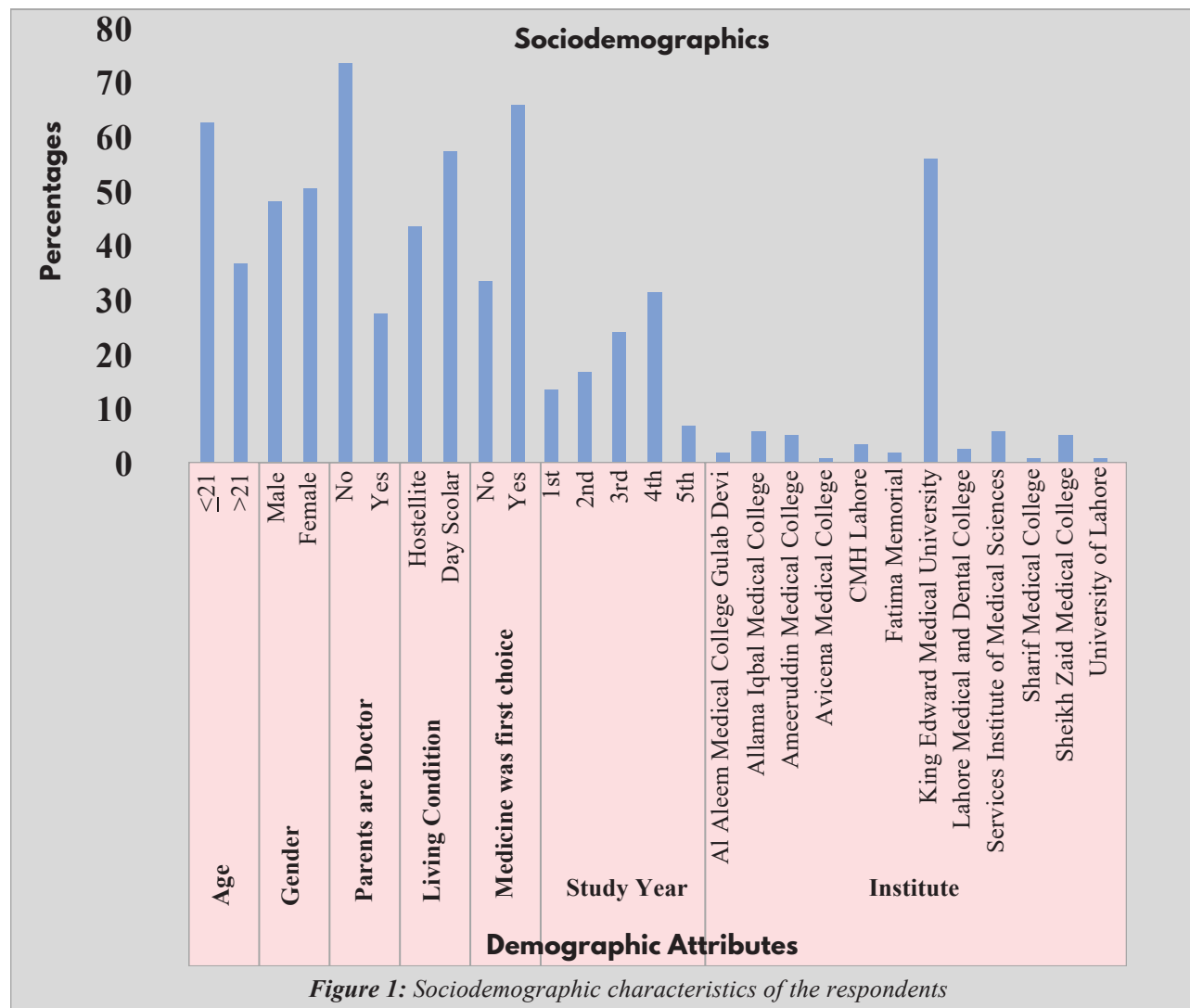


Figure 1: Sociodemographic characteristics of the respondents

to others and self-rated health ($\rho = 0.178$, $p < 0.001$). Satisfaction with studying medicine also showed a positive correlation with self-rated health ($\rho = 0.223$, $p < 0.001$). The correlation between perceiving medicine as an ideal career and self-rated health was also significant ($\rho = 0.145$, $p = 0.005$). The intention to drop out did not have a significant correlation with self-rated health ($\rho = 0.095$, $p = 0.068$).

The Mann-Whitney U test indicated no significant difference in self-rated health between those who chose medicine as their first choice and those who did not ($U = 15,699.000$, $Z = -0.041$, $p = 0.967$). However, a significant difference in self-rated health was observed between males and females ($U = 14,761.500$, $Z = -2.614$, $p = 0.009$), with a significant positive correlation between gender and self-rated health ($\rho = 0.136$, $p = 0.009$).

Table 1: Reasons for dissatisfaction among the respondents

Most common reason for dissatisfaction								
	Stress	Lengthy journey	Emotional drainage	High workload	Frequent examinations	Dissociation from family and friends	Financial strain	
Frequency	81	83	59	51	32	15	20	31
Percent	21.8	22.3	15.9	13.7	8.6	4	5.4	8.8

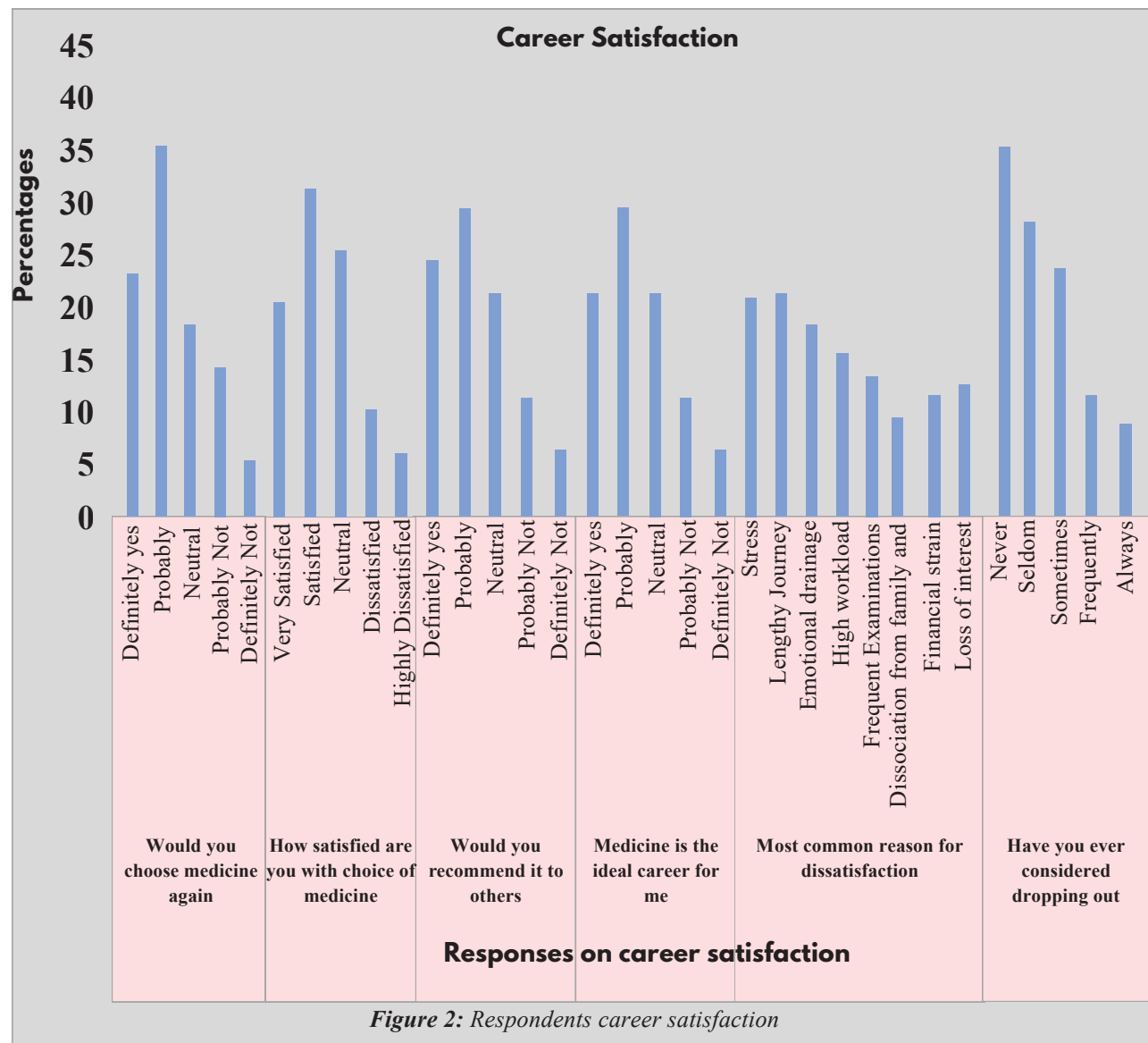


Table 2: Correlations between Career Satisfaction and HrQOL

Self rated general health		
Correlation Coefficient Sig. (2-tailed)		
Would you choose medicine again	.150**	0.004
Would you recommend studying medicine	.178**	0.001
How satisfied are you with choice of medicine	.223**	<0.001
Medicine is the ideal career for me	.145**	0.005
Have you ever considered dropping out of medicine	0.095	0.068

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3: Differences in HrQoL by Choice of Medicine and Gender

Self-rated general health		
Gender	Mann-Whitney U	14761.5
	Wilcoxon W	31597.5
	Z	-2.614
	Asymp. Sig. (2-tailed)	0.009
	Spearman Correlation Coefficient	0.136**
	Sig. (2-tailed)	0.009

** Correlation is significant at the 0.01 level (2-tailed).

Discussion

Our research studies different aspects of the population such as the demographics, career satisfaction, and health-related quality of life. The sample primarily consisted of individuals less than 21 years of age, with a nearly equal gender distribution. Most participants were enrolled at King Edward Medical University, with fourth-year students representing the largest group. A significant portion of students did not have parents in the medical field, and many were day scholars. For a considerable number of participants, medicine was their first choice, and the majority rated their overall health positively.

In terms of career satisfaction and HrQOL, a large majority of participants expressed that they would choose medicine again and would recommend it to others. Their satisfaction with their medical studies was high, and many considered it their ideal profession. The main reasons for dissatisfaction included the lengthy educational journey, stress, and emotional challenges. Only a small fraction reported frequently contemplating dropping out.

Our analysis indicated significant positive correlations between factors of career satisfaction (such as the willingness to choose medicine again, recommending it to others, satisfaction with studying medicine, and viewing medicine as an ideal career) and self-rated health. There was no significant correlation between the intentions to drop out and self-rated general health. However, we found a significant difference in self-rated health between male and female medical students. The females reported lower self-rated health as compared to males.

The findings of our study align with previous research that highlights the multifaceted nature of career satisfaction and its impact on health-related quality of life among medical students.¹¹

A study done on Jordanian population found that 76% student population regretted studying medicine. This is in contrast to our findings where students are not only satisfied with studying medicine but also want to recommend it to others.¹² Another study done on US medical students enquiring whether they are satisfied with career choice found that 85% students were satisfied with their career choice.¹³ Previous research has identified stress and emotional drainage as common reasons for dissatisfaction among medical students. A study on medical students in Tehran indicated overload as the most common reason for burnout.¹⁴ Time pressure, heavy workload, fear of failure and frequent examinations are some other common stressors. Some studies have found differences in stress levels among different years of medical education. However, our study did not find any correlation between year of study and self-rated general health. Our findings resonate with studies reporting high levels of stress and burnout among medical students, which negatively affect their career satisfaction and HrQOL.¹⁵

The significant difference in self-rated health between males and females observed in our study is supported by existing literature. Studies have shown that female medical students often report lower mental health scores and higher levels of stress compared to their male counterparts.¹⁶ This aligns with our finding of a significant positive correlation between gender and self-rated health. However, in another study, female medical students reported higher career choice satisfaction as compared to males.

The finding that a majority of participants did not have parents who were doctors aligns with studies suggesting that medical students from non-medical families may experience different stressors and levels of support compared to those with medical family backgrounds.

The weak correlation between choosing medicine as a first choice and self-rated health in our study is consistent with other research indicating that intrinsic motivation and genuine interest in the field are crucial for long-term career satisfaction and wellbeing.¹⁷ Another study shows that medical students who had prior motivation to study medicine did not regret their decision of choosing medicine. Medical students from developed countries such as USA and UK are more satisfied with their decision of choosing medicine as well as with their medical education, compared to developing countries.^{18,19} The implications of these findings are twofold.

Theoretically, the study highlights the importance of career satisfaction and its impact on HrQOL and hence contributes to the literature on the well-being of medical students. It underscores the need for further research to understand the underlying mechanisms that drive these associations.

Practically, the results suggest that medical schools should consider implementing support systems aimed at enhancing career satisfaction. This could include mentorship programs, stress management workshops, and initiatives to foster a supportive learning environment.

Our study has several limitations such as the cross-sectional design of the study that limits the ability to establish causality between career satisfaction and HrQOL. Second, the reliance on self-reported measures such as general health and satisfaction may introduce response bias. Third, the study was conducted only in Lahore, which may limit the generalizability of the findings to other regions.

Conclusion

In conclusion, this study sheds light on the intricate relationship between career satisfaction and health-related quality of life among undergraduate medical students in Lahore. While the correlations were weak, the significant associations suggest that career satisfaction plays a role in influencing students' well-being. By addressing the factors that contribute to career satisfaction, medical schools can better support their students in achieving a healthier and more fulfilling educational experience. Future research should consider longitudinal designs to better understand the causal relationships between career satisfaction and HrQOL. Longitudinal studies have been shown to provide deeper insights into how career satisfaction evolves over time and its long-term impact on health-related quality of life. Additionally, qualitative studies could provide deeper insights into the personal experiences and challenges faced by medical students, offering a more nuanced understanding of the factors contributing to their well-being. Expanding the study to include multiple regions and diverse medical schools could also enhance the generalizability of the findings.

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Conflict of Interest: Authors do not have conflict of interest.

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Author's Contribution

MAM, HA: Involved in conceptualization of study and writing original draft.

HZ, HYG: Involved in data curation, formal analysis and final review & editing.

JA, IH: Involved in design of study and final review & editing.

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