

QUALITY OF LIFE AMONG MEDICAL STUDENTS IN NEPAL: A COMPARATIVE STUDY

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**ABSTRACT**

Introduction: Medical education increases mental stress and affects the quality of life in medical students. Tough competition, academic performances, psychological distress, and unhealthy lifestyle add extra burden to the student. The study aimed to compare the quality of life among students of first and final year students.

Materials and Methods: This was a cross-sectional study among first and final-year students of Bachelor in Medicine and Bachelor in Surgery (MBBS) degree at National Medical College at Birgunj, Nepal. Pre-designed socio-demographic proforma along with the Kuppaswamy scale was administered to the student. Another scale used was the English version of (World Health Organization Quality of Life-Brief version) WHOQoL-Bref scale.

Result: Eighty-one students participated in this study, where 54 students were from the first year and 27 students from an internship. 43.2% of them belonged to the upper socioeconomic class as per the Kuppaswamy scale. The quality of life of interns was higher and better in all domains but was statistically significant in general (0.002), psychological (0.006), environmental (0.002), and overall (0.008) domains.

Conclusion: The quality of life of medical students is lower than the general population. It is poorer for the first-year student than the final year interns.

Keywords: Medical education; Medical student; Quality of life

INTRODUCTION

Medical education is a five and a half year of meticulous course that needs perseverance. Like in other national colleges, the duration of Bachelor in Medicine and Bachelor in Surgery (MBBS) is five and half years at National Medical College Teaching Hospital. Above that, the course and exams are being tougher day by day given the newer invention and upgrading health care. High rates of suicide and mental stress among healthcare workers (HCW) are well known.¹ Thousand students compete through tough exams every year for few seats available. In addition to hard work, the degree also requires a huge amount of fee that keeps soaring every year in private medical colleges. The entry into a medical college is only the beginning of stress because of studying around 19 subjects and facing exams every trimester. Many subjects like ophthalmology, orthopedics, and radiology during Bachelor of Medicine and Bachelor of Surgery (MBBS) could be passed in combination before but needs to be passed separately till this paper was being drafted. This

adds mental stress on students. Staying away from home and lack of nutritious diet at hostel add up to the stress.

Because of stress in HCW during the ongoing COVID-19 pandemic, they have been shown to have psychiatric comorbidities.² There is not enough data on this topic especially from this region that justifies the need for the current paper. It can be stressful for medical students and may alter their Quality of Life (QoL). It appeared prudent to look into the QoL of future stakeholders of public health. We aimed to compare the QoL among students of first and final year students and see if 4 and a half years of training alters the same or not.

MATERIALS AND METHODS

This was a cross-sectional assessment of the quality of life among first and interns of MBBS degree at National Medical College, Birgunj, province number 2 of Nepal. The college provides an average standard living and

studying environment that is representable of other Nepalese medical colleges. Almost ninety percent of the students come to college through self-pay, might have experienced less hardship in life than the student enrolled through scholarship, which enables admitting students who might be less prepared for the stress of frequent exams and tough career demand. First-year students and interns were taken as two groups posted in several departments. The study was conducted between March 2017 and February 2018. The permission for the study was given by Institutional Review Committee on 9th February 2017 at the National Medical College. Assessing the quality of life was a part of the study. Informed consent was taken from all students.

The socio-demographic profile of the students was assessed by using the Kuppaswamy scale that has been reliably used in previous studies.³ Another scale used was the English version of the World Health Organization Quality of Life-Brief version (WHOQoL-Bref) scale.⁴ This is a 26-item scale with 5 domains namely general health, physical, psychological, social, and environmental that are present over the past 4 weeks. The Cronbach's alpha values are acceptable (>0.7) for domains 1, 2, and 4 i.e. physical health, psychological, and environment but marginal for social relationships (0.68).⁴ The response score ranges from 1 to 5 on the Likert scale. Higher the score, the better the quality of life. National Medical College has students from different parts of Nepal and India that covers the diverse language and culture of the subcontinent. Thus, an English scale was used that has been well validated in previous studies.

Statistical Package for the Social Sciences (SPSS) version 21 was used for analysis. Descriptive analysis was done for socio-demographic profile and Chi-square was done for comparing the categorical variables. Student T-test was run to compare means of WHOQoL score.

RESULTS

A total of eighty-one students returned the completed pro forma as shown in table 1. Fifty-four students from the first year and 27 students from the internship responded. The response rate was 47.6%. The average age of all students was 20.78 years. All of them were single and 60 (74.07%) came from the urban locality. Most of them (96.29%) had a family income of above 30,375 Nepalese rupees per month. Similarly, 43.2% of them belonged to the upper socioeconomic class as per the Kuppaswamy scale. Most of them were Hindus and belonged to nuclear family background. However, there was no significant difference among first and final-year interns based on the above socio-demographic profile. Thus, they were well matched.

The quality of life of medical students was recorded under 5 domains as shown in table 2. QoL of final year interns was higher and better in all domains but was statistically significant in general (0.002), psychological (0.006), environmental (0.002), and overall (0.008) domains.

DISCUSSION

This is the first study from the region that represents the overall quality of life of medical students at a medical college in southern Nepal. All students in two groups were matched for various socio-demographic factors and stayed within the hostel premises. Given these controlled variables, it was found that the Quality of life (QoL) of interns was better than newly admitted first-year MBBS students in all domains. The probable explanation is the newcomers were adjusting to their environment while the interns were used to the environment. Besides, the latter was over their grand final exam which is one of the major stressors in a medical student career.

It is found that in comparison to the normal population, QoL to be lower in the medical student. Due to the multiple exams, hectic postings, and personal hardships in a medical school, most of the students were not satisfied with their QoL.⁵ These factors can be some of the reasons for poor QoL. In this study, higher mean scores were seen in the environmental domain and lowest in the social relationship domain. Similar results were seen in a study from Saudi Arabia, where the highest mean score was seen in the environmental domain.

However, in this Saudi Arabian study, the physical domain had the lowest mean score, unlike our study.⁶ The possible reason could be the varied representation of QoL in varied populations. The physical domain contains activities, energy, mobility, rest, and need for medicines for physical ailments. Students in Nepal appear to be doing better in the physical domain. The contribution of low-calorie food habits and tendency to remain active in the scarcity of automobiles and escalators can be considered.

The high mean score was seen in physical health domain and were almost same in first and final year student. The first-year student had a new environment and more academic workload whereas, during the internship, the student had more physical load as they were exposed to the hospital environment and experience fatigability and disturbed sleep. A similar result was seen in one of the Pakistan studies, where a lower score was in the aspect of quality of life in mental health than the physical health.⁷ The better physical health represents the facilities provided in their institutes. The possible reason being their older and experienced medical colleges.

First-year students have more pressure to improve and sustain their academic advancement as well as the peer competition, whereas, interns spend more time in leisure activities and socializing that boost their psychological well-being.⁶ However, the study done in the United States of America showed that there were more stress, bad mental health days and depressive feeling in student entering the ward than in the first-year students.⁸

Environmental domains included the freedom to move, transportation, staying, and health facilities like hostel life, food quality, and sanitation. They play important role in determining the QoL of medical students. Female gender, clinical beginning, last semester, and smoking have been related to low QoL.^{9,10} However Guthrie and colleagues found that the final year students were more worn out due to daily work activities and had a more physical and emotional problem than the first and second-year students.¹¹

The mean of social relationship domain was low in both first and final year students. This domain included personal relationships, social support, and sexual activities. Poor social interaction and resulting interpersonal relationships due to academic pressure and the added pressure of performing better than other students is seen prevalent in Nepal. The sense of competition is more prevalent than cohesion or compassion. This is likely to hamper social bonding. The lack of social relationships has been contributed by relentless examinations and a lack of accepting cohesive society supporting the medical profession.

Psychological wellbeing consisted of self-body image, feelings, spirituality, and learning. The first-year students had poorer psychological domain scores probably due to the psychological stress of multiple abstract subjects. There are more subjects from basic science and lesser from clinical medicine, which is generally understood as medicine by a first-year student. In addition to that, the medical curriculum is generally understood as to focus on disease diagnosis and treatment, thus paying little attention to education about communication with patients and end of life issues.¹² This eventually produces psychological stress which is likely to lessen once students face real patients during clinical posting and internship. In a study done in China, students from clinical medicine had higher psychological health and social relations domain.¹³

The medical career is high in demand is likely to attract students who might be less capable and may opt based on huge donations. This may act as a trap for them due to hectic course. As a result of which high rates of mental morbidities in medical students are well known and the reason for that are high academic expectations from

them.¹⁴ Thus it becomes important to assess and monitor the quality of life of the medical students under various domains ranging from their laboratory facilities to the hostel and mess environment. It is important to see what factors are contributing to their quality of life so that they do not get stressed at work and take poor decisions in inpatient care. Their poor clinical decision will eventually injure them morally and lessen their confidence. Finally, appointing a counseling team, including mental health professionals such as psychiatrists and psychologist appears to be prudent in every medical college. Providing a helpline number to students can be handy at these colleges.

Limitations from this study are low response rate and lack of information about the personal health of the students that may contribute to poor QoL. Tools were used in English because of students from India and Nepal. Data were collected during the first 6 months of their joining both first year and internship which may be the reason why they were not well acquainted with their environment and could result in biases. Small sample size from only one medical college does not enable us to generalize the findings to the whole of Nepal.

Table 1: Socio-demographic profile of all students

Particulars		First-year	Final year interns	Chi-square (p-value)
Gender	Male	24	18	0.07
	Female	30	9	
Marital status	Single	54	27	NA
	Married	0	0	
Locality	Urban	39	21	0.79
	Rural	15	6	
Family income	(> 30,375 rupees/month)	53	25	0.26
	15,188-30,374 rupees/month	1	2	
Socio-economic class (Kuppuswamy 2012)	Upper	22	13	0.32
	Middle	32	13	
	Lower	0	1	
Religion	Hindu	48	24	1.0
	Muslim	6	3	
Family type	Nuclear	41	16	0.02
	Joint	12	6	
	Extended	1	5	

Table 2: Comparison of WHOQoL-Bref version profile among first and final year students

WHO-QoL domains	First-year students (Mean ± SD)	Final year interns (Mean ± SD)	T-test [F value (p-value)]
General well-being	7.46±1.06	8.19±0.74	1.71 (0.002) **
Physical health domain	25.53±2.96	25.96±2.74	0.007 (0.534)
Psychological health domain	20.78±3.50	23.00±2.95	0.917 (0.006) **
Social relationships domain	11.20±2.07	11.78±1.80	0.723 (0.224)
Environmental domain	26.44±3.29	28.89±3.21	0.422 (0.002) **
Total score	91.42±10.41	97.81±9.18	0.083 (0.008) **

**significant, $p < 0.05$; WHOQoL-Bref: WHO Quality of life-brief scale; Note: Higher score indicates better quality of life.

CONCLUSION

The quality of life of medical students is lower than the general population. Future studies from Nepal may target external and internal factors determining the QoL of medical students. This will help us design courses that are more fruitful and less cumbersome which will upgrade their QoL. It is important to address the health needs of medical students who are always assumed to lead a tough life. It is time we ease them a little bit.

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