Changes in the Quality of Life of Medical Students at a Private University in Anápolis, Goiás

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ABSTRACT

Medical students face a heavy workload that changes throughout the course, forcing them to cope with sleepiness to complete their activities, which negatively impacts their quality of life. The objective of this study is to describe the relationship between medical training and the quality of life of medical students at a private university in Anápolis, Goiás. This is a quantitative, exploratory, descriptive study conducted with students from the 1st to the 8th semester, using the WHOQOL-BREF questionnaire and sociodemographic data. A total of 330 questionnaires were collected, of which 236 were analyzed. Most respondents were women (65.3%), white (75.0%), single (97.9%), and reported a family income above five minimum wages (63.1%). In the WHOQOL-BREF analysis, the averages remained stable, except in the 5th period, when there was a sharp drop in all domains evaluated. In addition, when correlating the WHOQOL-BREF scores with sleep, age, and the social and mental domains, it was observed that older students reported poorer quality of life. Thus, sociodemographic factors proved decisive in characterizing the sample, which is influenced by academic routine. However, despite variations in students' well-being, no significant reductions were observed in overall quality-of-life scores.

Keywords: Quality of Life. Sleep. Student Health. Medical Students.

INTRODUCTION

According to the World Health Organization (WHO), quality of life addresses how individuals perceive their position in life within their cultural and value systems. In general, it represents a broad concept that encompasses everything from health to aspects such as social relationships, beliefs, and the environment (WHO, 2021).

Quality of life is a multifactorial element related to social, physical, psychological, economic, and environmental aspects (SILVA; SOUZA; GANASSOLI, 2017). In this sense, it is possible to note the strong impact of interpersonal relationships on the process of building quality of life, as well as individuality related to a range of biopsychic factors (AZEVEDO; CIA; SPINAZOLA, 2019). These factors include emotional elements caused by the stress load to which individuals are subjected (MOREIRA et al., 2019).

Given this scenario, medical students stand out, as they are subjected to long working hours, often irregular sleep–wake cycles, and a high prevalence of psychosocial disorders (ROSA, et al., 2018). Thus, this research aims to describe the relationship between students' quality of life and how social and personal factors interfere in the lives of medical students at a private university in Anápolis-GO.

METHODS

This is a cross-sectional study with a quantitative approach. Data collection was carried out in September 2022 at the Evangelical University of Goiás (UniEVANGÉLICA), a private higher education institution in Anápolis, GO.

This research was conducted with medical students regularly enrolled in the 1st to 8th semesters of the course. The sample calculation was performed using G*Power software (version 3.1.9.7), requiring 143 medical students.

Students enrolled in the medical course at the Evangelical University of Goiás who were over 18 years of age were considered eligible. Students who use psychotropic medication and those with pre-existing chronic diseases were excluded from the sample. The WHOQOL-BREF questionnaire was applied, and a sociodemographic survey was conducted by the authors.

For statistical analysis, a spreadsheet was created in Microsoft Office Excel® 2010. The information was analyzed using the Statistical Package for the Social Sciences (SPSS) version 3.5 software. To present the descriptive characteristics of the sample, a simple frequency with percentage distribution was used. To analyze quality of life by period, mean and standard deviation were used. A nonparametric test was used to assess the significance of the quality of life variables by period. The test used for correlation was Spearman's correlation. The Mann-Whitney test was used to analyze the gender variables, with a significance value of $p < 0.5$.

The project was initially submitted to the Ethics and Research Committee (CEP) of UniEVANGÉLICA. After approval by the CEP (opinion number 5.601.623), all participants were invited to participate in the research and gave their free and informed consent through the Free and Informed Consent Form (TCLE), which was applied online, together with the two questionnaires.

RESULTS

A total of 330 questionnaires were collected, of which 94 (28.7% of the total) were excluded, resulting in 236 questionnaires being used. In the assessment of the sociodemographic profile of the 236 academics, 154 (65.3%) were women, and the majority, 177 (75.0%), identified themselves as white. Of these 231 students (97.9%) were single. Most students had a family income of more than five minimum wages, representing 63.1% of the sample. In addition, the study also analyzed the quality of life of medical students. The profiles of these students can be evaluated in Table 1. When evaluating physical domain, it can be seen that the standard deviations do not differ by more than 3 percentage points between each other.

Table 1 – Average WHOQOL-BREEF Questionnaire Domains by Period

Domain	Period	Average	SD	*p
Physical domain	1st Period	7	1	0
	2nd Period	66.25	15	
	3rd Period	63.91	12.42	
	4th Period	70.87	14.93	
	5th Period	60.93	13	
	6th Period	70.49	14.7	
	7th Period	69.11	15	
	8th Period	63.92	15	
Psychological Domain	1st Period	56	16.13	0
	2nd Period	60.48	17	
	3rd Period	61.53	14.47	
	4th Period	66.79	13	
	5th Period	53.64	21.3	
	6th Period	65.94	11	
	7th Period	61.27	12	
	8th Period	64.02	16	
Social Domain	1st Period	65	17.35	0
	2nd Period	63.79	24.5	
	3rd Period	64.95	22.1	
	4th Period	68.22	16	
	5th Period	54.16	2	
	6th Period	72.46	17	
	7th Period	65.19	18	
	8th Period	67.49	18	
Environmental Domain	1st Period	70.45	13	0
	2nd Period	68.96	17	
	3rd Period	66.6	18.54	
	4th Period	73.43	15.61	
	5th Period	54.49	20	
	6th Period	70.51	14	
	7th Period	68.93	19	
	8th Period	68.64	15	

Source: the authors

When observing the psychological domain ($p = 0.092$), there is a general decline in the averages of students in all periods, in addition to higher standard deviations. In

the social domain, the averages rise again, however, there is a sharp drop in the 5th period, associated with a standard deviation of 28 (p = 0.685) (Table 1). Analyzing the environmental domain, high averages are observed again, except in the 5th period. However, the standard deviations do not change much, not exceeding 7 percentage points among themselves (p = 0.085) (Table 1). Thus, it is evident that in both periods the averages are relatively stable, except in the 5th period, in which there is a sharp drop in all domains.

In the nonparametric test, there is a (null) hypothesis that the distributions between periods are equivalent in all domains. Performing the Kruskal-Wallis test, no significant difference was observed, thus retaining the initial null hypothesis in all periods. When analyzing the variables quality of life and age, a significant correlation was identified only for the social (p = >0.001) and mental (p = >0.001) domains, thus representing that the older the age, the worse the quality of life in these two domains (Table 2).

Table 2 – Correlation between WHOQOOL-BREV Domain Scores and Age (n=236)

	Age	
	r	***p***
Physical Domain	-	0.091
Psychological Domain	-0.08	0
Social Domain	-	0
Mental Domain	-	> 0.001

Source: the authors

Finally, when correlating gender and quality of life, it was found that a higher standard deviation represents a higher score, i.e., a better quality of life. When analyzing the data, it is evident that men have a better quality of life, but the only domain in which p was significant was the environmental domain (Table 3).

Table 3 – Correlation between the Pittsburgh Questionnaire Score and the WHOQOOL-BREV Domains and Age (n=236)

	Female (n=154)	Male (n=82)	
	Mean (SD)	**Mean (SD)**	***p***
Physical domain	13.6	16.28	0
Psychological Domain	14.47	17.56	0
Social Domain	19.1	22.65	0.517
Environmental Domain	14.3	21.59	0

Source: the authors

CONCLUSION

This study investigated the relationship between sleep quality and quality of life among medical students. It was concluded that socioeconomic status is a determining factor in characterizing the sample. The analysis of quality of life among medical students was conclusive. An inequality in quality of life was observed among students, especially in more advanced periods. In the fifth period, this disparity was even greater in the psychological, social, and environmental domains, highlighting the need for specialized support for all students. Contrary to the literature, no significant worsening in quality of life was found over the periods. The objective of relating the sleep quality and quality of life of medical students based on age groups, gender, and progression through the course was not fully understood by the partial results.

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