# Quality of life of postgraduate students in Dentistry: an analysis through the WHOQOL-bref domains

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#### ABSTRACT

The objective of the study was to assess the quality of life (QoL) of postgraduate students in Dentistry through the domains of the *World Health Organization Questionnaire for Quality of Life-bref* (WHOQOL-bref). This is a cross-sectional study, with 88 students enrolled in a postgraduate program in Dentistry. Data were collected between June and August 2015, including sociodemographic information and a quality of life questionnaire, the WHOQOL-bref. Sociodemographic information was associated with the domains of the questionnaire used. Bivariate analysis, followed by the multinomial logistic regression model were carried out, with p <0.05 being considered significant. The majority (55.7%) of students were classified in the "satisfaction" category in terms of quality of life. In the domains, the highest score found was in Social Relations (15.23 ± 2.72), and the lowest, in Physical (12.82 ± 1.56). There was an association between the frequency of religious practice (p=0.046) and the year of postgraduate school (p=0.025) with the Physical domain; gender (p 0.016) and consider yourself religious (p=0.008) with the Psychological domain; and marital status with the Social Relations (p=0.017) and Environment (p = 0.008) domains. The QoL of postgraduate students in Dentistry was measured in the region of satisfaction, which can be influenced by factors such as religiosity, year of graduation, gender and marital status.

Descriptors: Quality of Life. Dentistry. Education, Dental, Graduate.

#### **1 INTRODUCTION**

Quality of life (QoL) is defined as the

individual's perception of his role in life, in the context of culture, and of the value system in which he lives and in relation to his goals, expectations, standards and concerns<sup>1</sup>. A direct impairment in the QoL of individuals can impact real problems in daily life, including reflecting on mental health.

The mental health of the university population has become the focus of studies<sup>2,3</sup>, as it faces challenges and changes in lifestyle, such as separation from family and friends, greater independence and responsibilities, which can lead to exposure to various health risks<sup>4</sup>. With postgraduate students, it's no different.

Often the QoL of students in the academic field is affected, especially those in the *stricto sensu* postgraduate program, courses characterized by different requirements, such as an extensive volume of publication<sup>5</sup>, the lack of time, both for study and for private life<sup>6</sup> in addition to the uncertainty regarding employability<sup>7</sup>.

A survey carried out by the "Science, Technology and Innovation Action Plan: Main Results and Advances", of the Ministry of Science and Technology<sup>8</sup>, highlighted a notable growth in the *stricto sensu* postgraduate program system in Brazil. However, perhaps as an unwanted effect of this escalation, the advancement of postgraduate studies in the country has brought notable consequences, especially for students, having been characterized by high pressure<sup>6</sup>.

In this context, research involving QoL in postgraduate students has been more frequent in the international literature. Research with this audience has already investigated psychological well-being<sup>9</sup>; the different strategies for coping with stress<sup>10</sup>; health-related quality of life, where perceived and acculturative stress negatively impacted<sup>11</sup> on the QoL of these students. Another survey also showed that variables such as gender, marital status and year of postgraduate study directly impacted the QoL<sup>12</sup>.

In Brazil, a study involving the QoL of

undergraduate and postgraduate students in Dentistry in São Paulo allowed the early diagnosis of the difficulties experienced by students, assisting in the design of strategies that benefited the search for solutions to conflicts that affected QoL<sup>13</sup>. Another survey of postgraduate students in Dentistry in Ceará assessed the effect of distance learning activities implemented due to social isolation in the COVID-19 pandemic, with the Psychological domain being the most affected<sup>14</sup>.

However, studies that analyzed the QoL of postgraduate students through the e World Health Organization Questionnaire for Quality of Lifebref (WHOQOL-bref), analyzing the domains of this instrument in relation to the students' sociodemographic factors, have not been so evident. The WHOQOL-bref was the instrument for demonstrating chosen good internal consistency, discriminant, concurrent and content validity, and test-retest reliability<sup>15</sup>. Thus, the need to carry out this study is justified, whose objective was to assess the quality of life of postgraduate students in Dentistry through the domains of the WHOQOL-bref.

# **2 METHODOLOGY**

An observational, cross-sectional and quantitative study was carried out with students from the *Stricto Sensu* Postgraduate Program in Dentistry at the Federal University of Ceará (PPGO/UFC). Cross-sectional studies are widely used in epidemiological investigations, as they are low-cost, have analytical simplicity, in addition to high descriptive power and simplicity in data collection<sup>16</sup>.

The PPGO/UFC is located in Fortaleza, capital of the state of Ceará, Brazil. Data collection took place between June and August 2015, in the PPGO/UFC classrooms, laboratories and clinics. The data were collected by three female researchers, and their training was discarded because it is an easily used instrument, combined with the high intellectual level of the respondents.

The inclusion criteria included students regularly enrolled in PPGO/UFC in 2015, while exclusion criteria involved those students who would be away from PPGO due to sick leave, suspended enrollment or who are studying abroad. The universe of students was made up of 88 students, including master's, PhD and post-PhD students. This number coincided with the sample, as all participated in the study, justifying the nonperformance of the sample calculation.

The research notebook contained sociodemographic data of the participants, such as gender, marital status, whether they had children, monthly income, work, questions about religiousness, scholarship, course and year in postgraduate school, in addition to the WHOQOLbref, an instrument of QoL measurement, selfreported, cross-cultural, translated and validated in Brazil<sup>15</sup>.

For the completion of the WHOQOL-bref, the interviewee should consider the fifteen days prior to the application of the instrument. It contains 26 questions, each with five options for answers on a Likert scale, ranging from 1 (nothing/very bad/never) to 5 (extremely/completely/very good/always). The first two questions are general, while the others are divided into four domains: Physical, Psychological, Environment Social and Relations<sup>17</sup>.

The Physical domain consists of seven questions, which involve questions about pain and discomfort, energy and fatigue, sleep and rest, mobility, activities of daily living, use of medications and work capacity. The Psychological domain encompasses six questions, which deal with positive and negative feelings, thinking and learning, memory and concentration, body image and spirituality. The Social Relations domain is formed by three questions, which cover personal relationships, social support and sexual activity. The Environment domain comprises eight issues, which include physical security and protection, the home environment, financial resources, the availability and quality of health and social care, opportunities to acquire new information and skills, leisure activities, the physical environment and transport<sup>18</sup>.

All participants were previously informed about the research objectives and invited to sign the Informed Consent Form, guaranteeing the confidentiality and anonymity of those involved.

The data were tabulated and exported to the Statistical Package for the Social Sciences (SPSS) v. 17.0 (IBM, Armonk, NY, USA), and the analysis were performed considering a 95% confidence level and significance with p < 0.05. The scores obtained were transformed into a linear scale that ranged from 0-100, these being, respectively, the least and most favorable values of OoL, according to the syntax proposed by the WHOQOL group<sup>18</sup>. For the analysis of QoL scores, an adapted scale<sup>19</sup> was used, being categorized as follows: values between 0 and 40 were considered a region of "dissatisfaction"; from 41 to 69, they corresponded to the "uncertainty" region; and, above 70, as the region of "satisfaction". For the purposes of the statistical analysis, the variables were compiled in two groups, as only 1 student was classified in the category uncertainty: "dissatisfaction/uncertainty" and "satisfaction". Scores below 70 were considered as "dissatisfaction/uncertainty" with QoL and those above this value as "satisfaction".

The score values for each domain were submitted to the Kolmogorov-Smirnov test, so that they could be standardized and the normal distribution of data was observed. These were analyzed by the ANOVA test, for repeated measures, followed by the Bonferronni post-test, to assess the difference between the measured domains. The data were described in absolute and percentage frequencies, and analyzed using the chisquare test ( $\chi^2$ ). The multinomial logistic regression model was also used in order to verify the causal relationship between the QoL category and the investigated sociodemographic data.

The study was approved by the UFC Research and Ethics Committee, under the opinion of 1.113.226.

## **3 RESULTS**

Approximately 55.7% of students were classified in the region of satisfaction regarding QoL; 61.4% were female, half were married and 73.9% reported not having children; 34.1% of students reported dedicating themselves exclusively to postgraduate activities; and 59.1% had a monthly income of more than four minimum wages. Religious practice was

affirmed by 89.8% and 75.0% considered themselves religious. 68.2% of the participants had a postgraduate fellowship. 53.4% of the students were attending the PhD or post-PhD course, while 46.6% were in the second year of the postgraduate course. Postgraduate students were included because the purpose of the work was to cover all postgraduate students, and these were grouped to PhD students because they represented a small percentage of students (3.40%), being only 3 students.

The Physical domain showed the lowest average (12.82  $\pm$  1.56), showing significance (p<0.001) when compared to the other domains. The Social Relations domain had the highest average (15.23  $\pm$  2.72) (table 1).

Domains	Average	SD	Median	Minimum	Maximu	p-Value
Domanis	Average	50	Wittuan	Winninum	m	p-value
Physical*	12.82	1.56	13.14	8.57	16.57	< 0.001
Psychological	14.12	1.48	14.00	11.33	18.00	
Social Relations	15.23	2.72	15.33	8.00	20.00	
Environment	14.35	1.64	14.50	10.50	1800	

Table 1. Individual average of WHOQOL-bref domains

\*p<0.05 versus all groups. ANOVA/Bonferronni test. SD: Standard Deviation.

Table 2 depicts the association between sociodemographic data and the Physical domain. Significance was observed when associating the frequency of religious practice and year of postgraduate studies with the Physical domain. The "always" frequency of this practice was significantly associated with the region of dissatisfaction/uncertainty (p=0.046); while the "sometimes" classification was significantly associated with the region of satisfaction (p=0.046)(95% CI: 1.1 - 77.9). There was also a significant association between students in the third year of postgraduate school with the satisfaction rating in this domain (p=0.025) (95% CI: 1.8 - 6310.3).

Table 3 shows the association between sociodemographic data and the Psychological domain. The female gender showed a significant association with dissatisfaction/lack of definition in the referred domain (p=0.016); the male, on the other hand, showed a significant association with satisfaction in this domain (p=0.016) (95% CI: 1.4 - 28.9). Considering oneself religious was significantly associated with dissatisfaction/lack of definition in this domain (p=0.008), while not considering oneself religious was significantly associated with the region of satisfaction with aspects of that domain (p=0.008) (95% CI: 2.1 - 177.1).

	Physical Domai	<u>.</u>		
Variables	Dissatisfaction/Uncertainty	Satisfaction	p-Value*	p-Value <sup>†</sup>
	n (%)	n (%)	p- value	p-value
Gender				
Male	25 (36.8)	9 (45.0)	0.506	
Female	43 (63.2)	11 (55.0)		
Marital Status				
Single	37 (54.4)	6 (30.0)	0.055	
Married/Divorced	31 (45.6)	14 (70.0)		
Children				
Yes	14 (20.6)	9* (45.0)	0.029	
No	54* (79.4)	11 (55.0)		
Work - Exclusive dedication	×			
No	45 (66.2)	13 (65.0)	0.922	
Yes	23 (33.8)	7 (35.0)		
Work - Dental surgeon	- ()			
No	32 (47.1)	9 (45.0)	0.871	
Yes	36 (52.9)	11 (55.0)	0.071	
Monthly income	20 (22.7)	11 (0010)		
Up to 2 MW	13 (19.1)	2 (10.0)	0.093	
2 to 4 MW	19 (27.9)	2 (10.0) 2 (10.0)	0.075	
>4 MW	36 (53)	16 (80.0)		
Practice of some religion	50 (55)	10 (00.0)		
Yes	62 (91.2)	17 (85.0)	0.423	
No	6 (8.8)	3 (15.0)	0.423	
	0 (8.8)	5 (15.0)		
Frequency of religious practice Never	5(7,4)	2(10.0)	0.431	0.046
	5 (7.4)	2(10.0)	0.451	0.040
Rarely	6(8.8)	4(20.0)		
Sometimes	30 (44.1)	9† (45.0)		
Always	27† (39.7)	5 (25.0)		
Consider yourself religious		14 (70.0)	0.557	
Yes	52 (76.5)	14 (70.0)	0.557	
No	16 (23.5)	6 (30.0)		
Fellowship holder				
Yes	47 (69.1)	13 (65.0)	0.728	
No	21 (30.9)	7 (35.0)		
Postgraduate course				
Master's	34 (50)	7 (35.0)	0.237	
PhD/Post-PhD	34 (50)	13 (65.0)		
Postgraduate year				
First	23 (33.8)	6 (30.0)	0.016	0.025
Second	35 (51.4)	6 (30.0)		
Third	5 (7.4)	7*† (35.0)		
Fourth	5 (7.4)	1 (5.0)		

Table 2. Association between sociodemographic data and the Physical domain

\*Test  $\chi^2$  (\*p<0,05); †Multinomial Logistic Regression (†p<0,05). Blank boxes indicate no significant association. MW - Minimum wage (R\$ 788,00).

	Psychological Dom			
Variables	Dissatisfaction/Uncertainty n (%)	Satisfaction N (%)	p-Value*	p-Value <sup>†</sup>
Gender	<b>n</b> (70)	2. (, 0)		
Male	14 (29.2)	20*† (50.0)	0.046	0.016
Female	34*† (70.8)	20 (50.0)	01010	0.010
Marital Status		20 (0010)		
Single	26 (54.2)	17 (42.5)	0.276	
Married/Divorced	22 (45.8)	23 (57.5)	0.270	
Children	22 (13.0)	23 (37.3)		
Yes	12 (25.0)	11 (27.5)	0.790	
No	36 (75.0)	29 (72.5)	0.770	
Work - Exclusive dedication	50 (75.0)	27(12.3)		
No	30 (62.5)	28 (70.0)	0.460	
Yes		. ,	0.400	
	18 (37.5)	12 (30.0)		
Work - Dental surgeon	22(47.0)	10(45)	0 705	
No	23 (47.9)	18 (45)	0.785	
Yes	25 (52.1)	22 (55%)		
Monthly income		- (10)	0.505	
Up to 2 MW	10 (20.8)	5 (12.5)	0.585	
2 to 4 MW	11 (22.9)	10 (25.0)		
>4 MW	27 (56.3)	25 (62.5)		
Practice of some religion				
Yes	42 (87.5)	37 (92.5)	0.441	
No	6 (12.5)	3 (7.5)		
Frequency of religious practice				
Never	5 (10.4)	2 (5.0)	0.820	
Rarely	5 (10.4)	5 (12.5)		
Sometimes	21 (43.8)	18 (45.0)		
Always	17 (35.4)	15 (37.5)		
Consider yourself as religious				
Yes	39† (81.2)	27 (67.5)	0.138	0.008
No	9 (18.8)	13† (32.5)		
Fellowship holder				
Yes	31 (64.6)	29 (72.5)	0.427	
No	17 (35.4)	11 (27.5)		
Postgraduate course				
Master's	22 (45.8)	19 (47.5)	0.876	
PhD/Post-PhD	26 (54.2)	21 (52.5)	0.070	
Postgraduate year	20 (3 1.2)	21 (52.5)		
First	19 (39.6)	10 (25.0)	0.021	
Second	19 (39.6)	10 (23.0) 22* (55.0)	0.021	
Third	4 (8.3)	22* (33.0) 8* (20.0)		
	4 (8.5) 6* (12.5)	o' (20.0)		
Fourth	$0^{+}$ (12.3) Regression (†p<0.05). Blank boxes indi	-		

Table 3. Association	between sociodemos	raphic data and the	Psychological domain
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\*Test  $\chi^2$  (\*p<0,05); †Multinomial Logistic Regression (†p<0,05). Blank boxes indicate no significant association. MW - Minimum wage (R\$ 788,00).

The association between sociodemographic data and the Social Relations and Environment domains were shown in Tables 4 and 5, respectively. Single marital status was significantly associated with the category of dissatisfaction/indifference, both in the Social Relations (p=0.017) and Environment (p = 0.008) domains. The variable married/divorced marital status was significantly associated with the satisfaction category in the Social Relations (p=0.017) and Environment (p=0.008) domains.

### **4 DISCUSSION**

Postgraduate students in Dentistry were classified in the satisfaction group regarding QoL. Considering the subjectivity in the definition of QoL, and that this has a direct relationship with self-esteem, this result corroborates with the study carried out with postgraduate students from a university in southern Brazil, which verified a high self-esteem in this population<sup>20</sup>. However, in a study carried out with postgraduate students at the Federal University of Rio de Janeiro, the authors expressed concern about the QoL of students, as they observed a high level of stress among them<sup>21</sup>. Although they are the same type of population, the self-assessment of QoL takes into account subjective and personal criteria, which differ between individuals<sup>1</sup>, which may explain the difference in results between the studies cited on this issue.

Among the 88 students involved in the research, the highest average was in the Social Relations domain and the lowest in the Physical domain, similar to that found in a study that evaluated the QoL of undergraduate and postgraduate students in Dentistry in São Paulo<sup>13</sup>. Such results differ from research carried out with postgraduate students in Dentistry in the United States<sup>12</sup>, Chinese adults<sup>22</sup> and with Iranian adults<sup>23</sup>, with the Physical domain having the highest score in these studies. A study carried out with

postgraduate students in Dentistry in Ceará, during the social isolation in the pandemic of COVID-19, observed that the Psychological domain was the lowest average<sup>14</sup>. The lowest score in the Physical domain was also found in the study with Brazilian master's and PhD students, and this result is possibly explained by the extensive workload required by the stricto sensu postgraduate program, with the student having to reconcile it with other daily activities, such as your personal life and employment<sup>6</sup>, factors that may justify the results found in the Physical domain in this study. As for the Social Relations domain, the result found was probably due to the fact that all students are adults and trained dental surgeons, already having their consolidated social relationships.

The inverse relationship between the frequency of religious practice and the Physical domain of the present study was different from that found in a study that investigated the relationship between religiosity and QoL in people with human immunodeficiency virus<sup>24</sup>. In it, the relationship between religiosity took place with the Psychological, Social Relations and Environment<sup>24</sup> domains. This result can be justified by the fact that religiosity plays a role in favoring psychological well-being and social support for people affected by diseases and other clinical manifestations, as stated by other researches<sup>25-27</sup>, which can impact aspects of the Physical domain, like pain and discomfort, energy and fatigue. In this sense, individuals may be looking to improve these symptoms through spiritual practices. Because it is a cross-sectional study, а causal relationship cannot be established. However, apparently, the search for religiosity by the students occurred in moments of greater physical discomfort, being related to the greater dissatisfaction regarding QoL.

In the Physical domain, statistical significance was also observed between the third year of postgraduate school and satisfaction with QoL.

	Social relations			
Variables	Dissatisfaction/uncertainty Satisfaction		p-Value*	n-Vəluo <sup>†</sup>
	n (%)	n (%)	p-value.	p-value
Gender				
Male	9 (37.5)	25 (39.1)	0.893	
Female	15 (62.5)	39 (60.9)		
Marital Status				
Single	15† (62.5)	28 (43.7)	0.117	0.017
Married/Divorced	9 (37.5)	36† (56.3)		
Children				
Yes	7 (29.2)	16 (25.0)	0.692	
No	17 (70.8)	48 (75.0)		
Work - Exclusive dedication				
No	17 (70.8)	41 (64.1)	0.551	
Yes	7 (29.2)	23 (35.9)		
Work - Dental surgeon				
No	12 (50.0)	29 (45.3)	0.695	
Yes	12 (50.0)	35 (54.7)		
Monthly income				
Up to 2 MW	4 (16.7)	11 (17.2)	0.907	
2 to 4 MW	5 (20.8)	16 (25.0)		
>4 MW	15 (62.5)	37 (57.8)		
Practice of some religion				
Yes	23 (95.8)	56 (87.5)	0.251	
No	1 (4.2)	8 (12.5)		
Frequency of religious practice	- ()	- ()		
Never	1 (4.1)	6 (9.4)	0.547	
Rarely	4 (16.7)	6 (9.4)	0.00	
Sometimes	12 (50.0)	27 (42.1)		
Always	7 (29.2)	25 (39.1)		
Consider yourself as religious	. ()	20 (0)11)		
Yes	15 (62.5)	45 (70.3)	0.483	
No	9 (37.5)	19 (29.7)	0.105	
Fellowship holder	2 (31.3)	19 (29.17)		
Yes	8 (33.3)	33 (51.6)	0.127	
No	16 (66.7)	31 (48.4)	0.127	
Postgraduate course	10 (00.7)	51 (707)		
Master's	8 (33.3)	21 (32.8)	0.917	
PhD/Post-PhD	8 (33.3) 10 (41.7)	21 (32.8) 31 (48.4)	0.717	
Postgraduate year	4 (16.7)	8 (12.5)		
First		. ,		
	2 (8.3)	4 (6.3)		

Table 4. Association between sociodemographic data and the Social Relations domain

\*Test  $\chi^2$  (\*p<0,05); †Multinomial Logistic Regression (†p<0,05). Blank boxes indicate no significant association. MW - Minimum wage (R\$ 788,00).

$\begin{tabular}{ c c c c c } \hline Variables & Dissatisfaction/uncertainty Satisfaction n (%) n (%) P-Value* p-Value* \\ \hline Cender & n (%) 2 Sitisfaction n (%) p-Value* p-Value* \\ \hline Male & 14 (32.6) 20 (44.4) 0.252 \\ \hline Female & 29 (67.4) 25 (55.6) \\ \hline Marital Status & \\ Single & 28*† (65.1) 15 (33.3) 0.003 0.008 \\ \hline Married/Divorced & 15 (34.9) 30*† (66.7) \\ \hline Children & & & & & & & & & & & & & & & & & & &$		Environment			
It ( $\gamma_0$ )It ( $\gamma_0$ )Marine Marine Mar	Variables			n Voluo*	• Valuet
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Table 5. Association between sociodemographic data and the Environment domain

\*Test  $\chi^2$  (\*p<0,05); <sup>†</sup>Multinomial Logistic Regression (†p<0,05). Blank boxes indicate no significant association. MW - Minimum wage (R\$ 788,00).

This result differs from that found in a survey with postgraduate students in health sciences from *The American College Health Association's National College Health Assessment* (ACHA-NCHA)<sup>28</sup>, which related the stress of postgraduate students to the postgraduate program environment. The finding of this study may be related to the timeliness of data collection, since the research was cross-sectional, not taking into account the relationship of activities with the period of all semesters of postgraduate studies.

Most women were classified in the region of dissatisfaction/uncertainty regarding the items covered in the Psychological domain, presenting a result similar to a study that evaluated the stress of UFRJ postgraduate students, with an association between female gender and stress being found<sup>21</sup>. Still, in a study carried out with postgraduate students from all over Brazil, the highest level of stress also occurred in females<sup>6</sup>. This finding can also be justified by the countless activities accumulated by women, such as household chores, taking care of the family, work activities, and postgraduate activities.

Among the aspects addressed in the Psychological domain are positive and negative feelings and spirituality. The result found, in which the majority of students who considered themselves religious was classified in the region of dissatisfaction/indifference as to the aspects addressed in this domain, can be explained by the relationship between religion, spirituality and personal beliefs, and QoL in people with compromised health<sup>26,29</sup>, with *stricto sensu* postgraduate courses being a study program that demands too much from students, and may even generate psychosocial concerns<sup>28</sup>.

The association between marital status and the Social Relations and Environment domains can be substantiated by the aspects addressed in both. Social support and sexual activity are related to the Social Relations domain, while the home environment and financial resources with the Environment. Married individuals generally have these elements more adjusted. Such findings corroborate the study that aimed to investigate QoL by gender in patients with schizophrenia, exploring the occupational domain, in which marital status was the most relevant variable, and single women and men presented low QoL when compared to married couples<sup>30</sup>.

Research in which the WHOQOL-bref has been applied to students of *stricto sensu* postgraduate programs in Dentistry is not frequent in the literature, including the analysis of each domain with this audience, which makes the present study relevant. However, this fact limits the comparison of results. The representativeness of 100% of the researched universe, the presence of students in all postgraduate years and the use of a cross-cultural instrument validated in Brazil to measure QoL are also relevant aspects of this study.

The results of the present paper must be interpreted in the light of the limitations of its crosssectional design, which does not allow establishing the temporal precedence over the evaluated outcomes, as well as the non-representativeness for students enrolled in other postgraduate programs in Dentistry.

Future investigations involving other aspects relating to *stricto sensu* postgraduate students in Dentistry and QoL, as a longitudinal study, and which analyzes the issues listed in each domain, for investigations in different stages of postgraduate studies, or comparative studies between different institutions are needed.

# **5 CONCLUSIONS**

The QoL of postgraduate students in Dentistry was measured in the region of satisfaction, which may be influenced by factors such as religiosity, year of postgraduate studies, gender and marital status. A careful look at the entire support network that involves postgraduate students in Dentistry is suggested, such as the family, the course itself, in addition to their work activities, enabling greater support for the student, so that the period of the *stricto sensu* postgraduate course occurs with more QoL.

# RESUMO

### Qualidade de vida de estudantes de pósgraduação em Odontologia: uma análise por meio dos domínios do WHOQOL-bref

O objetivo do estudo foi avaliar a qualidade de vida (QV) dos estudantes de pós-graduação em Odontologia por meio dos domínios do World Health Organization Questionnaire for Quality of Life-bref (WHOQOL-bref). Trata-se de um estudo transversal. com 88 estudantes matriculados em um programa de pósgraduação em Odontologia. Os dados foram coletados entre junho e agosto de 2015, incluindo informações sociodemográficas e um questionário de qualidade de vida, o WHOQOLbref. Foi realizada associação das informações sociodemográficas com os domínios do questionário utilizado e análise bivariada, seguida do modelo de regressão logística multinominal, sendo considerado significativo p<0,05. A maioria (55,7%) dos estudantes foram classificados na categoria "satisfação" quanto à qualidade de vida. Entre os domínios, o maior escore encontrado foi para Relações Sociais  $(15,23 \pm 2,72)$ , e o menor para o Físico  $(12,82 \pm 1,56)$ . Houve associação da frequência da prática religiosa (p=0,046) e do ano da pósgraduação (p=0,025) com o domínio Físico; o (p=0,016) e considerar-se religioso sexo (p=0,008) com o domínio Psicológico; e o estado civil com os domínios Relações Sociais (p=0,017) e Meio Ambiente (p=0,008). A QV dos estudantes de pós-graduação em Odontologia foi mensurada na região de satisfação, podendo ser influenciada por fatores como religiosidade, ano da pós-graduação, sexo e estado civil.

**Descritores:** Qualidade de Vida. Odontologia. Educação de Pós-graduação em Odontologia

# REFERENCES

- The World Health Organization Quality of Life Assessment (WHOQOL): position paper from the World Health Organization. Soc Sci Med. 1995; 41(10): 1403-9.
- Rodrigues MIQ, Frota LMA, Frota MMA, Teixeira CNG. Stress factors and quality of life of Dental students. Rev ABENO. 2019; 19(1): 49-57.
- Lima RS, Cavalcante JL, Machado MFAS, Cavalcante EGR, Quirino GS, Rebouças VCF. Qualidade de vida de acadêmicos de enfermagem: análise à luz do modelo de pender. Rev Rene. 2020; 21.
- Vadeboncoeur C, Townsend N, Foster C. A meta-analysis of weight gain in first year university students: is freshman 15 a myth? BMC Obes. 2015; 2: 22.
- Macedo E, Souza CP. A pesquisa em educação no Brasil. Rev Bras Educ. 2010; 15(43): 166-76.
- Faro A. Estresse e Estressores na Pós-Graduação: Estudo com Mestrandos e Doutorandos no Brasil. Psicol Teor Pesqui. 2013; 29(1): 51-60.
- Nagy GA, Fang CM, Hish AJ, Kelly L, Nicchitta CV, Dziarasa K, et al. Problemas de Burnout e Saúde Mental em Doutorandos Biomédicos. CBE Life Sci Educ. 2019; 18(2):27.
- Brasil. Ministério da Ciência e Tecnologia. Plano de ação em ciência, tecnologia e inovação: Principais resultados e avanços [Internet]. Brasília (DF): Ministério da Ciência e Tecnologia; 2010 [Cited: May 21, 2019]. Available from: <u>http://protec.org.br/ uploads/paginas/file/publicacoes/Balan%C3</u> <u>%A70PACTI.PDF</u>.
- McKenna L, Robinson E, Penman J, Hills D. Factors impacting on psychological wellbeing of international students in the health professions: A scoping review. Int J

Nurs Stud. 2017; 74: 85-94.

- Bazrafkan L, Shokrpour N, Yousefi A, Yamani N. Management of stress and anxiety among PhD students during thesis writing: a qualitative study. Health Care Manag. 2016; 35(3): 231-40.
- Bhandari P. Stress and health related quality of life of Nepalese students studying in South Korea: a cross sectional study. Health Qual Life Outcomes. 2012; 10(1):26.
- Andre A, Pierre GC, McAndrew M. Quality of life among dental students: a survey study. JDE 2017; 81(10): 1164-70.
- Amadeu JR, Justi MM. Qualidade de vida de estudantes de graduação e pós-graduação em Odontologia. Arch Health Invest. 2017; 6(11): 540-4.
- 14. Silva PGB, Oliveira CAL, Borges MMF, Moreira DM, Alencar PNB, Avelar RL, et al. Distance learning during social seclusion by COVID-19: improving the quality of life of undergraduate dentistry students. Eur J Dent Educ. 2021;25:124-34.
- 15. Fleck MP, Louzada S, Xavier M, Chachamovich E, Vieira G, Santos L, et al. Aplicação da versão em português do instrumento abreviado de avaliação da qualidade de vida "WHOQOL-Bref". Rev Saúde Pública. 2000; 34(2): 178-83.
- Rouquayrol MZ, Filho NA. Epidemiologia & Saúde. Rio de Janeiro: Guanabara Koogan; 2003, 736p.
- The World Health Organization Quality of Life Assessment (WHOQOL): development and general psychometric properties. Soc Sci Med. 1998; 46(12):1569-85.
- Whoqol. The Whoqol Group. Sintaxe SPSS -WHOQOL - bref Questionnaire. [serial on the internet] [Cited: Sept. 20, 2018]. Available from: <u>https://www.ufrgs.br/ qualidep/ qualidade-de-vida/projeto-whoqolbref</u>.

- Brito DP, Oliveira LMR, Braga SR, Nuto SAS, Viana FAC. Avaliação da qualidade de vida de acadêmicos de Odontologia do estado do Ceará. Coleç Pesqui Educ Fís. 2012; 11(3):41-50.
- Silva AH, Vieira KM. Sindrome de Bornout em estudantes de Pós-graduação: uma análise da influência da autoestima e relação orientador-orientando. Pretexto. 2015; 16(1): 52-68.
- 21. Malagris LE, Suassuna AT, Bezerra DV, Hirata HP, Monteiro JL, Silva LR, et al. Níveis de estresse e características sociobiográficas de alunos de pós-graduação. Psicol Rev. 2009; 15(1):184-203.
- 22. Deng Q, Wang LM, Zhang M. Quality of life and related influencing factors in Chinese adults. Zhonghua Liu Xing Bing Xue Za Zhi. 2016; 37(2): 243-7.
- 23. Salehi A, Harris N, Sebar B, Coyne E. The relationship between living environment, well-being and lifestyle behaviours in young women in Shiraz, Iran. Health Soc Care Community. 2017; 25(1): 275-84.
- 24. Medeiros B, Saldanha AA. Religiosidade e qualidade de vida em pessoas com HIV. Estud Psicol. 2012; 29(1): 53-61.
- 25. Ai AL, Tice TN, Huang B, Rodgers W, Bolling SF. Types of prayer, optimism, and well-being of middle-aged and older patients undergoing open-heart surgery. Ment Health, Relig Cult. 2008; 11(1):131-50.
- 26. Fleck MP, Borges ZN, Bolognesi G, Rocha NS. Desenvolvimento do WHOQOL, módulo espiritualidade, religiosidade e crenças pessoais. Rev Saúde Pública. 2003; 37(4): 446-55.
- Moreira-Almeida A, Lotufo Neto F, Koenig HG. Religiousness and mental health: a review. Rev Bras Psiquiatr. 2006; 28(3): 242-50.
- 28. Kernan W, Bogart J, Wheat ME. Health

related barriers to learning among graduate students. Health Educ. 2011; 111(5): 425-45.

- 29. WHOQOL SRPB Group. A cross-cultural study of spirituality, religion, and personal beliefs as components of quality of life. Soc Sci Med. 2006; 62(6): 1486-97.
- 30. Cardoso CS, Caiaffa WT, Bandeira M, Siqueira AL, Abreu MN, Fonseca JO. Qualidade de vida e dimensão ocupacional na esquizofrenia: uma comparação por sexo. Cad Saúde Pública. 2006; 22(6): 1303-14.

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