

Quality of life of master's degree students in Dentistry

Maria Imaculada de Queiroz Rodrigues*; **Raul Anderson Domingues Alves da Silva****; **Myrna Maria Arcanjo Frota Barros*****; **Paulo Goberlanio de Barros Silva*****; **Cinthia Nara Gadelha Teixeira******; **Maria Eneide Leitão de Almeida*******

- * Undergraduate student, Dentistry Course, Federal University of Ceará
- ** Master's degree student in Dental Clinic, Federal University of Ceará
- *** PhD in Dental Clinic, Federal University of Ceará
- **** PhD student in Dentistry, Federal University of Maranhão
- ***** Professor, Graduate Program in Dentistry, Federal University of Ceará

Received June 15, 2019. Approved April 21, 2020.

ABSTRACT

The objective of this study was to evaluate the Quality of Life (QOL) of master's degree students in Dentistry of the Federal University of Ceará. This was a cross-sectional, quantitative-type study and data collection occurred from August 2015 to May 2016. Sociodemographic variables were investigated and QOL was measured using the Whoqol-bref instrument. Bivariate analysis and multinomial logistic regression were performed. Fifty students participated in the study, 29 were female (58%); 37 were single (74%) and 47 had no children (94%). The results showed that in the QOL analysis, 60% of the sample was satisfied. As for the domains, 82% obtained dissatisfaction/indifference in the Physical domain, while 76% were satisfied with the Social Relations domain. Statistical significance was found when associated with participation in a group of social activities in the Environment domain ($p = 0,016$). The vast majority of the sample was satisfied with the quality of life, while the Physical domain had the highest percentage of dissatisfaction/indifference and the Social Relationship the highest percentage of satisfaction.

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

1 INTRODUCTION

Quality of Life (QOL) is defined by the World Health Organization (WHO) as the individual's perception of their position in life, in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns¹.

Postgraduate degree in Brazil have as a strong characteristic an elevated level of demand from their graduate students during the entire training process². The master's course itself is already configured as a macro stressor event and during the course period the student is also exposed to several other situations that can greatly affect their QOL, mainly in a negative way³.

In their routine, postgraduate students begin to exercise various activities to meet the range of requirements of their graduate programs and advisors, such as taking courses; teaching; participating in research and study groups, collaborate in the research of other postgraduate students, guide undergraduate students, participate in scientific events and disseminate research results through presentations, articles and book chapters; in addition to developing their research and elaborating their dissertation/thesis, among others. Thus, in view of the numerous demands and tasks to be accomplished, together with personal life, an overload can end up negatively influencing their quality of life⁴.

One of the instruments created to assess an individual's quality of life was the WHOQOL-100, developed by the Mental Health Division of the World Health Organization (WHO). It is a questionnaire with 100 questions, validated in several countries, with several publications in the scientific environment¹. To make its application faster, the WHOQOL-bref¹⁰ was developed, which consists of 26 questions, two of which are about the self-assessment of QOL and 24 representing each facet of the WHOQOL-100.

Researches using the WHOQOL-bref and other parameters to measure quality of life have been conducted for over 30 years⁵.

There is little research that evaluates the quality of life of graduate students in Dentistry, allowing the identification of sociodemographic factors that may be related to their performance and quality of life. The evaluation of their levels of satisfaction and associated factors are of paramount importance for the recognition of the current reality of life for this population, as well as in the creation of action plans capable of transforming it, creating a favorable environment for learning and academic formation. Thus, the objective of the present research is to evaluate the Quality of Life (QOL) of the master's degree students in Dentistry of the Graduate Program in Dentistry at the Federal University of Ceará (PPGO-UFC).

2 METHODOLOGY

The research is characterized as a cross-sectional study of quantitative approach. Data collection took place from August 2015 to May 2016, with data collected by three researchers. Calibration was not necessary due to the high intellectual level of the respondents and the easy applicability of the instrument. Fifty masters students regularly enrolled in the program participated in the study, making up 100% of the universe researched.

The questionnaire applied was composed of two parts, the first of which contained general sociodemographic data of the students, such as sex, marital status, whether they had children, in addition to issues involving religiosity, and participation in a group of social activities. The second, on the other hand, consisted of the short questionnaire on QOL of the World Health Organization, the WHOQOL-bref⁶, which contains 26 questions, the first two on self-assessment of the individual's QOL and the

others divided into four domains: Physical, Psychological, Social Relations and Environment⁶.

The questions distributed by domains are: Physical (seven questions about pain and discomfort, energy and fatigue, sleep and rest, mobility, activities of daily living, use of medicines and ability to work); Psychological (six questions about positive and negative feelings, thinking and learning, memory and concentration, body image and spirituality); Social Relations (three questions about personal relationships, social support and sexual activity); Environment (eight questions about physical security and protection, home environment, financial resources, availability and quality of health and social care, opportunities to acquire new information and skills, leisure activities, physical environment and transportation)⁶.

All questions have a *Likert*-like scale response, with five options for each. To complete the questionnaire, the previous 15 days should be considered⁶.

Participants answered the questionnaire after reading and signing the Informed Consent Form. The study was approved by the UFC Research and Ethics Committee (CAAE 45227015.7.0000.5054).

The collected data were entered into *Microsoft Excel* (Redmond, WA, USA) and later analyzed using the *Statistical Package for the Social Sciences* software (San Diego, CA, USA), considering a 95% confidence interval and significance with $p < 0.05$.

As a recommendation of the syntax of the WHOQOL *group* itself, the scores obtained were transformed into a linear scale that ranged from 0-100, these being, respectively, the least and most favorable values of QOL⁶. For a better interpretation of the QOL data, an adapted scale was used, being thus categorized: values between 0 and 40 were at the level of dissatisfaction; from 41

to 69, they were at the level of uncertainty; and, from 70, they were at the level of satisfaction⁷.

Parametric tests (*Student's t* test) and nonparametric tests (*Pearson's chi square*) were used, according to the characteristics of the study variables. Bivariate analysis was performed for associations between variables, and the multinomial logistic regression model was also calculated. In the analysis, the variables of QOL and domains were grouped as dissatisfied/indifferent and satisfied.

3 RESULTS

Fifty master's degree students participated in this study, 58% were female; 74% were single and 94% said they did not have children. As for religious practice, 84% of students practiced some religion, 66% considered themselves religious; 80% stated that religion is the meaning of life and 70% did not participate in social activity (table 1).

Quality of life was measured in the dissatisfaction/indifference interval by 60% ($n = 30$) of the interviewees, with the Social Relations domain having the highest percentage (76%, 38 respondents) in the satisfaction interval, while the Physical domain presented the higher percentage of dissatisfaction/indifference (82%, 41 respondents). The Psychological and Environment domains obtained, respectively, 56% ($n = 28$) and 62% ($n = 31$) of percentage of dissatisfaction / indifference by the interviewees.

There was no statistical difference between the religiosity variables and the Physical (table 2), Psychological (table 3) and Social Relations domains (table 4).

Table 5 shows the association between sociodemographic variables and the Environment domain. Statistical significance was found when associating the Environment domain and the variable participation in a social activity group ($p = 0,016$).

Table 1. Sociodemographic data of master's degree students

Variables	n	%
<i>Gender</i>		
Male	21	42.0
Female	29	58.0
<i>Marital status</i>		
Single	37	74.0
Married	13	26.0
<i>Children</i>		
Yes	3	6.0
No	47	94.0
<i>Practice of some religion</i>		
Yes	42	84.0
No	8	16.0
<i>Frequency of religious practice</i>		
Never	6	12.0
Rarely	7	14.0
Sometimes	19	38.0
Always	18	36.0
<i>Consider yourself religious</i>		
Yes	33	66.0
No	17	34.0
<i>Religion as the meaning of life</i>		
Yes	40	80.0
No	10	20.0
<i>Participation in a social activity group</i>		
Yes	15	30.0
No	35	70.0

Table 2. Association between the Physical domain and the sociodemographic data of the master's degree students

Variables	Physical Domain		p-Value ^a	p-Value ^b
	Dissatisfied/Indifferent	Satisfied		
<i>Gender</i>				
Male	18(43.9%)	3(33.3%)	0,716	0,990
Female	23(56.1%)	6(66.7%)		
<i>Marital status</i>				
Single	32(78.0%)	5(55.6%)	0,164	0,975
Married	9(22.0%)	4(44.4%)		
<i>Children</i>				
Yes	2(4.9%)	1(11.1%)	0,476	0,997
No	39(95.1%)	8(88.9%)		
<i>Practice of some religion</i>				
Yes	37*(90.2%)	5(55.6%)	0,026	0,998
No	4(9.8%)	4*(44.4%)		
<i>Frequency of religious practice</i>				
Never	3(7.3%)	3*(33.3%)	0,033	0,961
Rarely	5(12.2%)	2(22.2%)		
Sometimes	15(36.6%)	4(44.4%)		
Always	18*(43.9%)	0(0.0%)		
<i>Consider yourself religious</i>				
Yes	29(70.7%)	4(44.4%)	0,242	1,000
No	12(29.3%)	5(55.6%)		
<i>Religion as the meaning of life</i>				
Yes	34(82.9%)	6(66.7%)	0,358	0,975
No	7(17.1%)	39(33.3%)		
<i>Participation in a social activity group</i>				
Yes	32(78.0%)	5(55.6%)	0,247	0,996
No	9(22.0%)	4(44.4%)		

^aFisher's Exact Test or Pearson's Chi-square; *p<0.05;^bMultinomial Logistic Regression; †p<0.05;

Table 3. Association between the Psychological domain and the sociodemographic data of the master's degree students

Variables	Physical Domain		p-Value ^a	p-Value ^b
	Dissatisfied/Indifferent	Satisfied		
<i>Gender</i>				
Male	9(32.1%)	12†(54.5%)	0,111	0,017
Female	19†(67.9%)	10(45.5%)		
<i>Marital status</i>				
Single	22(78.6%)	15(68.2%)	0,406	0,195
Married	6(21.4%)	7(31.8%)		
<i>Children</i>				
Yes	1(3.6%)	2(9.1%)	0,576	0,995
No	27(96.4%)	20(90.9%)		
<i>Practice of some religion</i>				
Yes	24(85.7%)	18(81.8%)	0,718	0,997
No	4(14.3%)	4(18.2%)		
<i>Frequency of religious practice</i>				
Never	4(14.3%)	2(9.1%)	0,452	0,996
Rarely	2(7.1%)	5(22.7%)		
Sometimes	11(39.3%)	8(36.4%)		
Always	11(39.3%)	7(31.8%)		
<i>Consider yourself</i>				
<i>religious</i>				
Yes	21(75.0%)	12(54.5%)	0,130	0,309
No	7(25.0%)	10(45.5%)		
<i>Religion as the meaning of life</i>				
Yes	24(85.7%)	16(72.7%)	0,254	0,585
No	4(14.3%)	6(27.3%)		
<i>Participation in a social activity group</i>				
Yes	10(35.7%)	5(22.7%)	0,320	0,222
No	18(64.3%)	17(77.3%)		

^aFischer's Exact Test or Pearson's Chi-square; *p<0.05;

^bMultinomial Logistic Regression; †p<0.05;

Table 4. Association between the Social Relations domain and the sociodemographic data of the master's degree students

Variables	Social Relations Domain		p-Value ^a	p-Value ^b
	Dissatisfied/Indifferent	Satisfied		
<i>Gender</i>				
Male	6(50.0%)	15(39.5%)	0,520	0,297
Female	6(50.0%)	23(60.5%)		
<i>Marital status</i>				
Single	11(91.7%)	26(68.4%)	0,147	0,988
Married	1(8.3%)	12(31.6%)		
<i>Children</i>				
Yes	1(8.3%)	2(5.3%)	1,000	0,987
No	11(91.7%)	36(94.7%)		
<i>Practice of some religion</i>				
Yes	10(83.3%)	32(84.2%)	1,000	0,988
No	2(16.7%)	6(15.8%)		
<i>Frequency of religious practice</i>				
Never	1(8.3%)	5(13.2%)	0,286	0,110
Rarely	3(25.0%)	4(10.5%)		
Sometimes	6(50.0%)	13(34.2%)		
Always	2(16.7%)	16(42.1%)		
<i>Consider yourself religious</i>				
Yes	7(58.3%)	26(68.4%)	0,728	0,190
No	5(41.7%)	12(31.6%)		
<i>Religion as the meaning of life</i>				
Yes	8(66.7%)	32(84.2%)	0,185	0,984
No	4(33.3%)	6(15.8%)		
<i>Participation in a social activity group</i>				
Yes	5(41.7%)	10(26.3%)	0,312	0,068
No	7(58.3%)	28(73.7%)		

^aFischer's Exact Test or Pearson's Chi-square; *p<0.05;

^bMultinomial Logistic Regression; †p<0.05;

Table 5. Association between the Environment domain and the sociodemographic data of the master's degree students

Variables	Domain Environment		p-Value ^a	p-Value ^b
	Dissatisfied/Indifferent	Satisfied		
<i>Gender</i>				
Male	13(41.9%)	8(42.1%)	1,000	0,152
Female	18(58.1%)	11(57.9%)		
<i>Marital status</i>				
Single	25(80.6%)	12(63.2%)	0,199	0,945
Married	6(19.4%)	7(36.8%)		
<i>Children</i>				
Yes	1(3.2%)	29(10.5%)	0,549	0,382
No	30(96.8%)	17(89.5%)		
<i>Practice of some religion</i>				
Yes	29*(93.5%)	13(68.4%)	0,041	0,996
No	2(6.5%)	6*(31.6%)		
<i>Frequency of religious practice</i>				
Never	2(6.5%)	4(21.1%)	0,447	0,997
Rarely	4(12.9%)	3(15.8%)		
Sometimes	13(41.9%)	6(31.6%)		
Always	12(38.7%)	6(31.6%)		
<i>Consider yourself religious</i>				
Yes	21(67.7%)	12(63.2%)	0,740	0,977
No	10(32.3%)	7(36.8%)		
<i>Religion as the meaning of life</i>				
Yes	27(87.1%)	13(68.4%)	0,150	0,825
No	4(12.9%)	6(31.6%)		
<i>Participation in a social activity group</i>				
Yes	12†(38.7%)	3(15.8%)	0,086	0,016
No	19(61.3%)	16†(84,2%)		

^aFischer's Exact Test or Pearson's Chi-square; *p<0.05;^bMultinomial Logistic Regression; †p<0.05;

4 DISCUSSION

Most participants were classified in the range of dissatisfaction/indifference regarding QOL, differing from a study conducted with undergraduate students in Dentistry in Ceará⁷ and another conducted with an adult population in the Federal District⁸. Such a result can be justified because master's degree students are submitted to high demands in graduate school, such as research, teaching classes, need for publication, concern with financial conditions, in addition to having to deal with the frequent ambiguity of expectations of the advisor⁹.

The Social Relations domain was the one that obtained the highest percentage of satisfaction regarding quality of life. This result can be explained by involving only three aspects, personal relationships, social support, and sexual activity, with the master's degree student needing a consistent social support for the course. In addition, a survey conducted with graduate students in Nursing found a positive relationship between the interpersonal relationship with the members of the faculty of the course, which generated a positive impact on the quality of life of their sample¹⁰. This satisfactory relationship is often considered to favor the quality of life for these students, in addition to serving as an opportunity to develop new skills and learning, as well as serving as intellectual and emotional support in facing difficulties throughout the course¹¹⁻¹².

The Physical domain had a higher percentage of dissatisfaction in the present research, which can be explained by the very effort of taking a postgraduate course, which in most cases requires high scientific production and deadlines for completing the course. This has caused a difficulty in reconciling academic and personal life, requiring increasing physical and mental effort from graduate students¹³⁻¹⁴. In addition, a survey conducted with undergraduate

and graduate students in Dentistry also found similar results, where the physical domain had a lower average of satisfaction than the other domains. According to the authors, among the questions that correspond to this domain, the issue with the most negative highlight was the one that referred to the possession of energy to perform daily tasks, which may be related to the demands and high load hours of courses¹⁵.

No association was found between religiosity variables and the Physical, Psychological and Social Relations domains. Altogether, these three domains involve sixteen aspects, ranging from sleep and rest, through positive and negative feelings in life, to sexual activity, which is consistent with the results of a study that found that religiosity is more sought after by people in cases of serious illness¹⁶. Another study showed that the dimensions of spirituality and religiosity are associated with better QOL, with better results for people who are recovering from physical and mental illness^{17, 18}.

Participation in a social activity group indicated greater dissatisfaction/indifference regarding QOL, with a significant association with the Environment domain. This result differs from that found in a study in which the frequency of religious practice, participation in social events and in some religious institution was linked to greater stability in QOL¹⁹. This result can be justified because the master's degree is an intense and short course, with the division of time between academic, professional and social activities creating difficulties in the proper management of time.

Even so, the literature has shown low satisfaction in the QOL of graduate students in different courses and realities in Brazil and in the world^{7,8,10,20-23}. In addition, graduate students have shown greater dissatisfaction with quality of life when compared to undergraduate students,

which suggests the interference of specific characteristics of this level of education¹⁰. It is believed that the acceptance of this lifestyle and the impacts on its quality of life is in the belief that everything is just a transition step towards a possible improvement, and that the continuity in this type of experience also has its positive side: the privilege of attending another level of education, which leads to personal and professional recognition, professional improvement and growth and the chance of better financial opportunities²⁴.

The great dispute in the labor market, the constant search for better professional qualification and the investment in postgraduate programs ended up transforming the current reality, stimulated the high demand for scientific production that results in greater investments by development agencies, without taking into account the consequent impacts on QOL.

Some limitations are present in this study: its cross-sectional design, which does not allow inferences of causality; its sample restricted to a localized population that limits the generalization of its findings; in addition to the failure to establish a temporal precedence over the evaluated outcomes. Future investigations involving other aspects relating to master's students, religiosity, and quality of life, such as longitudinal studies and the investigation of other aspects involving religiosity are necessary.

5 CONCLUSION

Most of the sample showed general satisfaction regarding QOL. Among the domains, Physical presented a higher percentage of dissatisfaction/indifference, while Social Relations presented a higher percentage of satisfaction. As for sociodemographic characteristics, only the variable "group practice of social activity" influenced the QOL of master's degree students, in the aspects that

guide the Environment domain.

RESUMO

Qualidade de vida de mestrandos em Odontologia

O objetivo deste estudo foi avaliar a Qualidade de Vida (QV) dos mestrandos em Odontologia da Universidade Federal do Ceará. O estudo foi transversal, do tipo quantitativo e a coleta de dados ocorreu no período de agosto de 2015 a maio de 2016. Foram investigadas variáveis sociodemográficas e a QV foi mensurada utilizando o instrumento Whoqol-bref. Foi realizada análise bivariada e regressão logística multinominal. Participaram do estudo 50 discentes, sendo 29 do sexo feminino (58%); 37 eram solteiros (74%) e 47 não possuíam filhos (94%). Os resultados mostraram que na análise de QV 60% da amostra apresentou satisfação. Já quanto aos domínios, 82% obteve insatisfação/indiferença no domínio Físico, enquanto 76% mostraram-se satisfeitos quanto ao domínio Relações Sociais. Significância estatística foi encontrada quando associada a participação em grupo de atividades sociais ao domínio Meio Ambiente ($p=0,016$). A maior parte da amostra mostrou-se satisfeita quanto à qualidade de vida, enquanto o domínio Físico apresentou maior percentual de insatisfação/indiferença e o de Relações Sociais o maior percentual de satisfação.

Descritores: Educação de Pós-Graduação. Odontologia. Religião. Qualidade de Vida.

REFERENCES

1. World Health Organization. Division of Mental Health and Prevention of Substance Abuse. WHOQOL: measuring quality of life. Geneva. World Health Organization. 1997
2. Zanella AV. Atividade criadora, produção de conhecimentos e formação de pesquisadores: algumas reflexões. *Psicol Soc.* 2004; 16(1): 135-45.
3. Santos AF, Júnior AA. Estresse e estratégias

- de enfrentamento em mestrandos de ciências da saúde. *Psicol Reflex Crit.* 2007; 20(1): 104-13.
4. Faro A. Um modelo explicativo para o bem-estar subjetivo: estudo com mestrandos e doutorandos no Brasil. *Psicol Reflex Crit.* 2013; 26(4):654-62
 5. Fleck MPA, 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.
 6. Whoqol. The Whoqol Group. Sintaxe SPSS - WHOQOL - bref Questionnaire. [acesso em 17 Dez 2015]. Disponível em: <http://www.ufrgs.br/psiq/whoqol86.html>.
 7. Brito DP, Oliveira LMR, Braga SR, Nuto SAS, Viana FAC. Avaliação da qualidade de vida de acadêmicos de Odontologia do estado do Ceará. *Coleção Pesquisa em Educação Física.* 2012; 11(3):41-50.
 8. Gomes JRAA, Hamann EM, Gutierrez MMU. Aplicação do WHOQOL-BREF em segmento da comunidade como subsídio para ações de promoção da saúde. *Rev. bras. epidemiol.* 2014; 17(2):495-516.
 9. Hyun JK, Quinn BC, Madon T, Lustig S. Graduate student mental health: needs assessment and utilization of counseling services. *J Coll Student Dev.* 2006; 47(3):247-66.
 10. Galdino MJQ, Martins JT, Ribeiro RP, Scholze AR, Tsukamoto SAS, Haddad MCFL. Quality of life of masters and doctoral nursing students. *Rev. Eletr. Enf.* 2018 ;20:v20a41.
 11. Nehls N, Barber G, Rice E. Pathways to the PhD in Nursing: An Analysis of Similarities and Differences. *J Prof Nurs.* 2016; 32(3):163-72.
 12. Halse C, Bansel P. The learning alliance: ethics in doctoral supervision. *Oxford Rev Educ.* 2012;38(4):377-92.
 13. Faro A. Estresse e estressores na pós-graduação: estudo com mestrandos e doutorandos no Brasil. *Psic Teor Pesq.* 2013;29(1):51-60.
 14. Mendes VR, Iora JA. A opinião dos estudantes sobre as exigências da produção na pós-graduação. *Rev Bras Ciênc Esporte.* 2014 ;36(1):171-87.
 15. Amadeu, JR, Justi, MM. Qualidade de vida de estudantes de graduação e pós-graduação em Odontologia. *Arch Health Invest.* 2017; 6(11):540-44.
 16. Miranda SL, Lanna MAL, Felipe WC. Espiritualidade, depressão e qualidade de vida no enfrentamento do câncer: estudo exploratório. *Psicol Cienc Prof.* 2015; 35(3):870-85.
 17. Murakami R, Campos CJG. Religião e saúde mental: desafio de integrar a religiosidade ao cuidado com o paciente. *Rev Bras Enferm.* 2012; 65(2):361-67.
 18. Fleck MPA, Borges ZN, Bolognesi G, Rocha NS. Desenvolvimento do WHOQOL, módulo espiritualidade, religiosidade e crenças pessoais. *Rev Saúde Pública.* 2003; 37(4):446-55.
 19. Bahr HM, Harvey CD. Widowhood and perceptions of change in quality of life: evidence from the Sunshine Mine Widows. *Journal of Comparative Family Studies.* 1979; 10(3):411-28.
 20. Vakili Z, Mohamad AR, Vakili MA. A quantitative study of quality of life (QOL) on postgraduate students in Universiti Sains Malaysia. *Caspian J Appl Sci Res.* 2012; 1(7), 28-32.
 21. Bullappa A, Kengnal P. Assessment of quality of life of postgraduate students in a private medical college of Karnataka using World Health Organization quality of life-

- BREF questionnaire. *Int J Med Sci Public Health*. 2017; 6(5):834-7.
22. Ghazanfar H, Iqbal S, Naseem S. Quality of life of post-graduate medical students working in private and public hospitals in Punjab as measured by WHOQOL-BREF questionnaire. *J Pak Med Assoc*. 2018; 68(6), 908-13.
23. Mendes-Rodrigues C, Ranal MA, Carvalho DVP. Postgraduate Students: an alert about Quality of Life. *World J Educ*. 2019; (9)1:136-44.
24. Galdino MJQ, Martins JT, Haddad MCFL, Ribeiro RP. Mestrado em enfermagem: sentimentos vivenciados por estudantes. *Rev Enferm*. 2016;10(2):501-7.

Correspondence to:

Raul Anderson Domingues Alves da Silva
e-mail: raulanderson_alves@hotmail.com
Rua Jockey Clube, 48-altos. Bairro Jockey Clube
60510-115 Fortaleza/CE Brazil