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Original Article

Association between sociodemographic characteristics and quality of life domains in nursing professionals

Associação entre dados sociodemográficos e domínios da qualidade de vida em profissionais de enfermagem

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Karla Gualberto Silva[1]
Célia Regina da Silva Medeiros[1]
Samira Silva Santos Soares[1]
Denise Consuello Araújo dos Santos[1]
Norma Valéria Dantas de Oliveira Souza[2]
Sheila Nascimento Pereira de Farias[1]

[1]Universidade Federal do Rio de Janeiro. Rio de Janeiro, RJ, Brazil.
[2]Universidade Estadual do Rio de Janeiro. Rio de Janeiro,RJ, Brazil.

Corresponding author:
Karla Gualberto Silva
Rua Afonso Cavalcanti, 275 – Cidade Nova,
CEP: 20211-130. Rio de Janeiro, RJ, Brazil.
E-mail: karlagualberto@hotmail.com

ABSTRACT

Objective: to analyze the association of sociodemographic variables and the domains of the Abbreviated Quality of Life Assessment Instrument (WHOQOL-Bref) in nursing professionals. **Methods:** cross-sectional study, carried out with 85 nursing professionals of the Family Health Strategy program. Data collection was performed using the sociodemographic form and the WHOQOL-Bref. Sociodemographic data were analyzed using descriptive statistics and the WHOQOL-Bref went through analysis of variance, Student's t test, and Tukey's multiple comparison test. A significance level of 5% was adopted. **Results:** in the association between sociodemographic characteristics of nursing professionals and the WHOQOL-Bref, a statistically significant association was evidenced for the environment domain, when associated with family income. **Conclusion:** professionals with lower incomes tend to have a better quality of life.

Descriptors: Nursing; Quality of Life; Social Conditions; Working Conditions; Work-Life Balance; Family Health Strategy.

RESUMO

Objetivo: analisar a associação dos dados sociodemográficos e os domínios do Instrumento Abreviado de Avaliação de Qualidade de Vida (WHOQOL-Bref) em profissionais de enfermagem. **Métodos:** pesquisa do tipo transversal, realizada com 85 profissionais de enfermagem, nas Estratégias Saúde da Família. Coleta de dados realizada por meio do formulário de informações sociodemográfico e do WHOQOL-Bref. Os dados sociodemográficos foram analisados a partir da estatística descritiva e os do WHOQOL-Bref, através da análise de variância, teste *t* de *'Student,* e teste de comparações múltiplas de Tukey. Adotou-se nível de significância de 5%. **Resultados:** na associação referente às características sociodemográficas presente entre os profissionais de enfermagem e ao WHOQOL-Bref, evidenciou-se associação estatística significativa para o domínio ambiente, quando vinculado à renda familiar. **Conclusão:** profissionais com rendas mais baixas tendem a ter melhor qualidade de vida.

Descritores: Enfermagem; Qualidade de Vida; Condições Sociais; Condições de Trabalho; Equilíbrio Trabalho-Vida; Estratégia Saúde da Família.

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Introduction

Quality of life is a multidimensional construct that can be assessed using the World Health Organization Shortened Quality of Life Assessment Instrument (WHOQOL-Bref). With this instrument it is possible to identify issues related to human subjectivity, regarding aspects of life, physical and psychological health, social relationships and the place of residence of the individual[1].

For the World Health Organization, quality of life is related to the individual's personal understanding of his own life and his particular yearnings for the future[2]. Previous studies mention that the definition of the construct is quite complex, due to the subjective concepts that are the physical, psychological, and social dimensions. From this perspective, some repercussions, such as low remuneration, double employment, difficulty in doing leisure activities and resting, and lack of family interaction tend to directly influence the quality of life of nursing professionals[3-4].

The World Health Organization has developed, through the Quality of Life Group, two instruments to measure quality of life: the WHOQOL-100 and the WHOQOL-Bref. WHOQOL-100 is a broader instrument with 100 questions about quality of life, and the WHOQOL-Bref is an abbreviated version of the previous instrument, composed of 26 questions[5].

It is emphasized that the nursing professionals of the Family Health Strategy provide direct assistance to users, acting as the entrance institution in the Single Health System. Their actions are focused on the individual, the family and the community, creating a space for the production of care. The nurse stands out for being a professional category that, in addition to being part of the minimal health team, develops bonds with the assisted community[6], thus allowing the professionals to experience the health/disease process from different perspectives. However there has been a downsizing of public human resources, which has been instituted in the health sector due to the influence of neoliberal ideas[7].

It can be argued that the quality of life of nursing professionals in the Family Health Strategy is not restricted to issues of professional activities. It also involves the social context, personal and family relations.

In view of the above, it becomes clear that applying instruments to assess quality of life allows to understand several aspects and factors that are multidimensional and interrelated to such a situation, making it possible to present an overview of the reality being investigated. Thus, this study is justified and relevant, since knowledge about the factors associated with the quality of life of nursing professionals provides subsidies for primary care managers to contribute in improving the work process of these professionals.

Thus, the following research question was established: are sociodemographic variables associated with the WHOQOL-Bref domains among nursing professionals? Thus, the objective was to analyze the association between sociodemographic variables and the domains of the Abbreviated Quality Assessment Instrument (WHOQOL-Bref) in nursing professionals.

Methods

Cross-sectional study, carried out in the Family Health Strategy, in the city of Macaé/RJ/Brazil. The municipality has 40 Family Health Strategy teams, each one with one nurse and one or two nursing technicians, depending on the team.

Thus, it was decided to carry out a census-type study of municipal scope, in all units of the Family Health Strategy, aiming to cover the largest number of professionals in the municipality. Initially, a population of 100 nursing professionals was considered. However, limitations inherent to the research field made it impossible to capture all potential participants. The losses (n=15) occurred due to refusal, participants not found in more than three attempts, and urban violence. It is noteworthy that the losses due to urban violence were due to high crime rates and violence, which prevented the researcher from entering some

communities.

Two instruments were used for data collection: a sociodemographic instrument for nursing professionals from the Family Health Strategy and the WHOQOL-Bref, an instrument composed of 26 questions, with 2 general questions about quality of life and 24 others representing the facets that correspond to the original instrument. This abbreviated version has good psychometric performance, and covers four domains: physical, psychological, social relations, and environment[8].

Sociodemographic variables were categorized as follows. Age was separated into two groups, less than 40 years old and 40 years old or more; gender was categorized as male or female; family income was categorized in three groups, one to three minimum wages, four to six minimum wages, or seven or more minimum wages. The question "people who depend on the professional income" was categorized into two groups: up to three people, or four or more people. Marital status was assessed based on the presence or absence of a partner (with a partner or without a partner). The group with a partner corresponded to those who were married, and the group without a partner corresponded to those who were single, separated and/or divorced, or widowed. The educational level of the participants was classified into three groups: high school, graduation, or specialization. Regarding children, there were two groups: no children, and one or more children. Regarding employment, participantes were divided in contracted, or government employee. With regards to the number of professional bonds, the categories considered were one job or two jobs. With regards to living in the same region where you work, the possible answers were yes or no.

The quality of life scores were analyzed according to the physical, psychological, social relations, and environment domains, and were calculated according to the syntax provided by the World Health Organization. The syntax steps of the World Health Organization were applied for the analysis of the WHOQOL-Bref instrument. Then, the average for the domains was measured, followed by the application of the formula: [(Average – 4) x (100/16)][5].

Data collection took place from February to May 2019, in the Family Health Strategy teams. The researcher introduced herself, explained the research objectives, read the Free and Informed Consent Form, instructed participants on how to complete the instruments, and clarified possible doubts. The meetings were held in the health units, in a quiet place, in order to ensure the privacy of the participants.

Inclusion criteria were: being a nursing professional (nurses or nursing technicians) who had been working in the Family Health Strategy for at least six months. Were excluded nursing professionals (nurses or nursing technicians) who were on sick leave and/or vacation.

Sociodemographic data were analyzed and received statistical treatment through univariate analyses, based on descriptive statistics, with absolute and relative values. The WHOQOL-Bref analysis was performed according to the syntax provided by the World Health Organization. The answers were grouped and categorized to form the database, using the statistical software Statistical Package for the Social Sciences, version 23, recommended by the World Health Organization to analyze the WHOQOL-Bref questionnaire. This process happened under the supervision of a statistical consultant. The software allows for the creation of a database that generates information through statistical treatment.

The WHOQOL-Bref bivariate analyses were developed based on an analysis of variance (ANOVA) and Student's t test for continuous variables. The level of statistical significance was 5%. ANOVA and Student's t test compared the mean scores of the domains (physical, psychological, social relations and environment) with the characteristics of nursing professionals. When ANOVA presented statistical significance, the Tukey multiple comparison test was applied. Thus, after the level of statistical significance, the higher the average in the analyzed domain, the better the quality of life. It is pointed out that equal letters indicate simi-

larities between the averages, which results in a better quality of life.

This study sought to meet the steps recommended by the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE), a verification guide composed of 22 items, necessary for the development of quantitative studies[9].

In order to comply with the Resolution of the National Research Ethics Commission, of the National Health Council, this study was submitted to the analysis and was approved by the Research Ethics Committee of the Anna Nery School of Nursing/São Paulo Health Care Institute Francisco de Assis. The approvals are under protocol No. 3.074,589/2018 and Certificate of Presentation for Ethical Appreciation No. 04185218.4.0000.5238.

Table 1 - Association between sociodemographic characteristics and WHOQOL-Bref domains in nursing professionals from the Family Health Strategy. Macaé, RJ, Brazil, 2019 (n=85)

Variables	n (%)	Physical		Psychological		Social relations		Environment	
		Average	p*	Average	p	Average	p	Average	p
Age groups (years)									
< 40	44 (51.7)	64.61	0.570	71.21	0.395	71.02	0.671	53.41	0.943
≥ 40	41 (48.3)	66.55		68.39		69.11		53.66	
Gender									
Male	17 (20.0)	65.55	0.999	68.38	0.657	62.75	0.101	55.88	0.501
Female	68 (80.0)	65.55		70.22		71.94		52.94	
Family income (minimum wage†)									
1 to 3	29 (34.1)	68.72		71.70		73.28		58.30[b]	
4 to 6	22 (25.9)	67.86	0.126	68.56	0.721	69.32	0.580	55.97[b]	0.024
≥7	34 (40.0)	61.34		69.12		67.89		47.89[a]	
People who depend on income									
Up tp 3	71 (83.5)	66.80	0.126	70.77	0.209	71.01	0.362	54.14	0.434
≥4	14 (16.5)	59.18		65.18		65.48		50.45	
Marital status									
With a partner	55 (64.7)	63.18	0.058	69.85	0.997	70.30	0.902	51.59	0.131
Without a partner	30 (35.3)	69.88		69.86		69.72		57.08	
Educational level									
High School	31 (36.5)	65.90		67.74		66.13		54.64	
College	14 (16.5)	73.98	0.053	74.40	0.398	71.43	0.402	55.80	0.656
Specialization	40 (47.0)	62.32		69.90		72.71		51.88	
Children									
None	29 (34.1)	66.50	0.687	67.24	0.255	68.39	0.586	54.53	0.682
≥1	56 (65,9)	65.05		71.21		70.98		53.01	
Employment bond									
Contracted	19 (22.3)	61.84	0.243	70.61	0.805	67.54	0.543	54.93	0.667
Government employee	66 (77.7)	66.61		69.63		70.83		53.13	
Employment bonds									
One	58 (68.2)	65.83	0.811	71.77	0.088	70.40	0.843	53.39	0.910
Two	27 (31.8)	64.95		65.74		69.44		53.82	
Do you live in the same region where you work?									
Yes	57 (67.1)	67.42	0.115	69.66	0.871	69.59	0.748	52.91	0.611
No	28 (32.9)	61.73		70.24		71.13		54.80	

*Student's t test for independent samples or ANOVA for multiple comparison tests; Tukey's; † Minimum wage in the year of data collection: R$ 998.00; ab - Different letters indicate differences between averages

Results

The study counted on the participation of 85 nursing professionals, 39 nurses and 46 nursing technicians. From those, 51.7% were under 40 years old (young adults) and 80.0% were female. Regarding family income, 40.0% received seven or more minimum wages. The number of people who depended on their professional income was up to three people (83.5%). Regarding the number of children, 65.8% had one or more children. There was a higher percentage of professionals with a partner (64.7%). As for education, 47.0% of all professionals had concluded a specialization course. Regarding the employment relationship, 77.6% were government employees, and 68.2% said they had only one employment bond and 67.0% lived in the region where they worked (Table 1).

In the search for an association between the sociodemographic characteristics of nursing professionals and the WHOQOL-Bref, there was a statistically significant association for the environment domain (p=0.024) and family income. The environment domain had a higher mean score (58.30) for those who earned from one to three minimum wages and an average score of 55.97 for those who reported earning between four and six minimum wages. These two categories were considered similar in the analysis, which results in a better quality of life when compared to those who received seven minimum wages or more. Association of the physical domain with marital status (p=0.058) and education (p=0.053), despite not being statistically significant, had a p-value close to the level of significance (Table 1).

Discussion

The limitations of the study are related to issues inherent to the research field that made it impossible to capture all potential participants. In addition, the use of the cross-sectional method made it impossible to identify cause and effect relationships between the variables analyzed. As a contribution, this study highlights the importance attributed to the quality of life of nursing professionals in the Family Health Strategy, as well as the production of knowledge on this topic, in order to raise their awareness about the improvement of work processes. The analyses of the relationship between the sociodemographic data and the quality of life of these professionals enables the planning of strategies and actions, in addition to providing subsidies to assist the primary care managers of the investigated municipality, for investment in health and, therefore, in the quality of life of these professionals. This contributes to the improvement of the work process, encouraging new practices aimed at the health care of the professional himself.

In the analyses of the sociodemographic profile and the WHOQOL-Bref, there was an association between the environmental domain and family income. It must be considered that the environmental domain is related to the place where the individual resides and their satisfaction with it, as well as access to health, leisure and transportation services, among others[7]. Considering family income, nursing professionals who earned one to three and four to six minimum wages had a better quality of life in this domain, when compared to those who earned seven minimum wages or more.

The study "Nursing Profile in Brazil", carried out by the Oswaldo Cruz Foundation in partnership with the Federal Nursing Council, traced the characteristics of Brazilian nursing. They had extremely low wages, with more than 600 thousand nursing workers presenting income of up to R$ 3.000,00[10-11]. The results of this research showed that the participants had an income above the national average. However, nursing professionals with incomes of one to three minimum wages and four to six minimum wages had a better quality of life. This fact can be attributed to professionals that work double hours, to gain more money, which negatively impacts the assessment of quality of life[12-13].

As for the type of employment of the participants, most were government employees, which cor-

roborates another study carried out in the municipality of Serra, Espírito Santo, Brazil, which also found that the nursing professionals of the Family Health Strategy had this kind of professional bond[14]. Regarding the number of jobs, the results showed that most nursing professionals had two jobs, a rate above the national average of 25.1%[15]. There is a tendency among nursing professionals to have more than one job, and greater permanence in the work environment, thus, generating psychological and physical stress. In this context, the type of employment and work conditions tend to affect health and quality of life[12-13,16].

Another relevant result, although without statistical associations, was the influence of the marital status and education in the physical domain. The physical domain is related to physical pain, medical treatment, energy for the development of activities, locomotion, sleep and rest, and performance of daily activities[7]. As for marital status, the data corroborated a study carried out with 451 nursing workers in primary care in Bahia, Brazil, which found that 52.6% of workers had a partner[17].

Regarding the education level of nursing professionals, there was evidence of the search for qualification. According to other studies, there is a tendency for professionals to seek better qualification in specialization courses[10,14]. This may be related to market demands (qualification) and to the expectation of social ascension.

Regarding the age of nursing professionals, a similar reality was found with other studies, which also found a prevalence of young adults exercising these activities[18]. The data presented corroborates literature by pointing out a predominance of females, which demonstrates the feminization found in professionals of the Family Health Strategy[14]. This brings forth the notion that nursing activities are mainly performed by women, whose characteristics are related to the cultural and historical aspects of the profession[3].

It can be inferred that, in contemporary times, nursing professionals face great influence from the neoliberal and globalized model. This scenario, marked by insecurity, individualism and competitiveness, affects the dimensions of the individual's social life[12-13]. It is also noteworthy in this context that the nursing category is exposed to several risks, such as multiple jobs, the lack of human and material resources, the inadequate sizing of personnel, the search for qualification and constant updating, and, often, the ineffectiveness of public policies aimed at these professionals[19].

In addition, the World Health Organization highlights the importance of government investments to increase policies aimed at the appreciation of nursing professionals, emphasizing that the category has a deficit of nine million nurses, a low income, and a shortage of professionals in leadership positions[20].

It can be considered that the negative evaluation of quality of life, based on the aspects mentioned above, is a reflection of the contemporary world. It results from the effects of the globalized world and the neoliberal model, characterized by insecurity, individualism, competitiveness, fragile labor bonds and insecurity regarding the future, affecting the dimensions of the individual's social life. Thus, with an unsatisfactory remuneration, professionals tend to seek more than one job, leading to a greater permanence in the work environment, possibly generating psychological and physical strain, with a negative impact on quality of life[12-13,16].

Therefore, this study showed a direct influence on quality of life through the association between the environment domain and family income. Thus, reflecting the neoliberal ideas that have been incorporated into the health sector, weakening professionals bonds, decreasing wages and precarious work conditions.

In addition, assessing the quality of life of these professionals provides subsidies in order to improve their work process, making it possible to measure, through association with sociodemographic data, the factors that tend to have the most impact on quality of life.

Conclusion

This study showed a statistically significant association for the environment domain and family income, where nursing professionals with lower incomes tend to have better quality of life. It can be considered that the higher incomes are related to more than one employment bond and, thus, have a negative impact on the assessment of quality of life. Furthermore, it stands out that these aspects are reflections of the contemporary world, marked by neoliberalism and precarious work conditions.

Collaborations

Medeiros CRS, Soares SSS and Santos DCA contributed to the conception and design, analysis and interpretation of data, writing of the article and relevant critical review of the intellectual content. Silva KG, Souza NVDO and Farias SNP collaborated with data analysis and interpretation, writing of the article and relevant critical review of the intellectual content and approval of the final version to be published.

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