



Quality of working life of professionals who worked in primary health care during the Covid-19 pandemic

Qualidade de vida no trabalho de profissionais que atuaram na atenção primária à saúde durante a pandemia da Covid-19

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ABSTRACT

The quality of life at work is related to physical, environmental, and psychological aspects. Objective: to evaluate the influence of the COVID-19 pandemic on the quality of life at work of health professionals. Method: Research carried out with 26 professionals, including nurses, physicians, and nursing technicians, who worked in primary health care and worked in the COVID-19 pandemic. Cross-sectional quantitative study, carried out between June and July 2022, with approval by the Human Research Ethics Committee. A sociodemographic data form and the Quality of Life at Work Questionnaire (QWLQ-78) were used, including 4 domains: physical/health, psychological, personal, and professional. Results: Health professionals presented, by domain, and in general, satisfactory quality of life at work. Conclusion: The study identified that even during the pandemic period, health professionals in the municipality of Giruá had a satisfactory QWL.

Keywords: COVID-19. Health personnel. Quality of life. Primary Health Care.

RESUMO

A qualidade de vida no trabalho está relacionada aos aspectos físicos, ambientais e psicológicos. Objetivo: avaliar a influência da pandemia da COVID-19 na qualidade de vida no trabalho de profissionais da saúde. Método: Pesquisa realizada com 26 profissionais, entre eles, enfermeiros, médicos e técnicos em enfermagem, que trabalharam na atenção primária à saúde, e atuaram na pandemia da COVID-19. Estudo transversal, de abordagem quantitativa, realizado entre junho e julho de 2022, com aprovação no Comitê de Ética em Pesquisa em Seres Humanos. Utilizou-se uma ficha de dados sociodemográficos e o Questionário de Qualidade de Vida no Trabalho (QWLQ-78) que abrange 4 domínios: físico/saúde, psicológico, pessoal e profissional. Resultados: Os profissionais de saúde apresentaram, por domínio, e no geral, qualidade de vida considerada satisfatória no trabalho. Conclusão: o estudo permitiu identificar que, mesmo no período pandêmico, os profissionais de saúde do município de Giruá apresentaram QVT satisfatória.

Palavras-chave: COVID-19. Profissionais da saúde. Qualidade de vida. Atenção Primária à Saúde.

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INTRODUCTION

COVID-19 is a respiratory disease caused by the new coronavirus (SARS-CoV-2). In December 2019, the World Health Organization (WHO) began monitoring an increase in cases of pneumonia of unknown cause in the city of Wuhan, China. On January 7, 2020, Chinese authorities reported that the origin was COVID-19.

The WHO declared, on January 30, 2020, that the outbreak of the disease caused by the new coronavirus constituted a public health emergency of international concern - the highest alert level of the organization, as provided for in international health regulations. On March 11, 2020, COVID-19 was characterized by the WHO as a pandemic. Since then, WHO and all countries, including Brazil, have been monitoring the progression, behavior, and responses given to COVID-19. Also in March 2020, the Ministry of Health (MS) declared a state of community transmission throughout the national territory¹. In the MS epidemiological bulletin, Brazil registered until June 2022 a total of 31,693,502 cases, and 669,010 deaths².

According to the evidence, SARS-CoV-2, like other respiratory viruses, is mainly transmitted through three modes: contact, droplets, or aerosol. The incubation period is estimated to be between 1 and 14 days, with a median of 5 to 6 days. Infection with the new coronavirus can range from asymptomatic cases and mild clinical manifestations to moderate, severe, and critical conditions, requiring special attention to signs and symptoms that indicate worsening of the clinical condition, which requires hospitalization of the patient. The diagnosis can be made by clinical-epidemiological investigation, anamnesis, and physical examination, and by molecular biology tests, serology, or rapid tests³.

Concerning prevention and control measures, the Ministry of Health indicates norms

such as social distancing, respiratory etiquette, and hand hygiene, use of masks, cleaning and disinfection of environments, isolation of suspected and confirmed cases, and quarantine of contacts of COVID-19 cases, according to medical guidelines. In addition, it also recommends vaccination against COVID-19, in accordance with the National Vaccination Operationalization Plan³.

The PHC (Primary Health Care) is the priority gateway of the Unified Health System (SUS). During outbreaks and epidemics, PHC plays a key role in the global response to the disease in question. It offers resolute care and maintains the longitudinality and coordination of care at all levels of health care, with great potential for early identification of serious cases that must be managed in specialized services⁴.

Health professionals play a prominent role in combating the pandemic. From the beginning, they mobilized around the world, working at the edge of physical and emotional exhaustion, to save as many lives as possible. Thus, the rapid spread of the COVID-19 pandemic impacted the professional, financial, and psychosocial health of health professionals with high intensity⁵.

Health professionals are a risk group for Covid-19 because they are directly exposed to infected patients and the risk of becoming ill with the coronavirus, both through contamination and factors associated with working conditions. Problems such as physical fatigue and psychological stress, insufficiency and/or negligence regarding the protection measures and health care of these professionals⁶ are aspects of work activities in health, during the pandemic, that can impact the quality of life at work.^{6,7}

The quality of working life (QWL) is a multifactorial phenomenon related to the physical, environmental, and psychological aspects of the work environment⁸. Health

professionals have been the target of numerous stress-producing situations in the performance of work activities that directly affect their quality of life⁹. QWL and motivation are directly linked to employee satisfaction and well-being.⁸ Thus, job satisfaction is an important factor in determining the best QWL and in the psychological domain, which addresses all aspects related to personal satisfaction, work motivation, and self-esteem of employees, being considered a protective factor against stress¹⁰.

Given the above, and because SARS-CoV-2 infection is an international public health problem that strongly interferes with the quality of life of health workers, the repercussions of the pandemic should be investigated in this context. Through the assessment of the QWL in that area, it is possible to identify factors that contribute to the emergence of conflicts in the workplace, which can interfere with the professional's performance, family and social life, and physical and mental health. The results found will be able to evaluate the quality of life at work, in addition to contributing to the development of preventive actions aimed at preserving the QWL. In this sense, this study aimed to evaluate the influence of the COVID-19 pandemic on the QWL of health professionals.

METHODOLOGY

The research was conducted with health professionals who worked at Basic Health Units (UBS), in the municipality of Giruá, located in the northwest region of the state of Rio Grande do Sul. The sample was for convenience, and participants were invited considering their accessibility. Professionals working in primary care participated in the survey, including physicians (n=03), nurses (n=07), and nursing technicians (n=16), who worked on the front

lines of the pandemic, totaling 26 professionals.

All primary health care employees were invited by the researcher, who went to the five UBS in the city, personally invited them to participate in the study, and explained the reason and objectives of conducting the research. As an inclusion criterion to be part of the research, it was defined to be a health professional; and as exclusion, not having worked during the COVID-19 pandemic.

Although the municipality has community health agents, they were not included in the study because they do not directly care for patients diagnosed with the new coronavirus.

Data were collected between June and July 2022, after approval by the Human Research Ethics Committee of Ulbra Canoas, state of Rio Grande do Sul, under opinion 5.434.482, and the participants' signature of the IC (Informed Consent). After explaining the project to the participants, a sociodemographic questionnaire was applied with 16 questions about gender, age, professional training, area of activity, income, marital status, work time, and the employment relationship. In addition, a validated instrument was used, the Quality of Working Life Questionnaire (QWLQ-78), to evaluate the quality of life at work. The proposed instrument was adapted and validated for the Brazilian population by Reis Junior, Pilatti and Pedroso¹¹. The questionnaires were made available at the participants' workplaces.

The QWLQ-78 instrument contains 78 questions divided into four domains: physical, psychological, personal, and professional. The physical domain has 17 questions, the psychological 10, the personal 16, and the professional 35, and at least 80% questions in each domain have to be answered for the questionnaire to become valid. That is, in absolute numbers, it represents a minimum of 63 questions to be answered, in total. As the

instrument was developed to assess QWL, the number of questions related to this aspect is more expressive than the other domains¹¹.

About the content evaluated in each domain, the following stand out:

- physical/health: addresses all aspects related to health, work-related illnesses, and healthy habits of employees (17 questions);
- psychological: addresses all aspects related to personal satisfaction, motivation at work, and self-esteem of employees (10 questions);
- personal: addresses family aspects, personal and religious beliefs, and cultural aspects that influence the work of employees (16 questions);
- professional: addresses the organizational aspects that can influence the QoL of employees (35 questions).

Domain scores were calculated by inverting the response categories for questions 4; 5; 7; 16; 17; 18; 23; 25; 26; 34; 36; 43; 48; 49; 50; 53; 54; 55; 57; 61; 65, so that (1=5) (2=4) (3=3) (4=2) (5=1). For this instrument, the higher the score, the better the quality of life for the domain. The response scales used in the QWLQ-78 are Likert-type with five alternatives, and these may vary according to the scale.

Thus, the indices vary from “very unsatisfactory” to “very satisfactory”. Collaborators who reach the level of “very satisfactory” have an excellent QWL. For the QWLQ-78 data tabulation syntax, an exclusive syntax was built for the instrument, using algorithms in a spreadsheet¹¹. This was made available, free of charge, to the researcher by the authors of the QWLQ-78 via the Internet.

For the quantitative analysis, data were organized in an MS Excel[®] spreadsheet and subsequently analyzed using the SPSS 28.0 software (SPSS, Chicago, IL). Quantitative variables were described as mean and standard deviation or median and interquartile range. The categorical variables were expressed in absolute

frequency and percentage. The association between numerical variables was performed using Pearson's or Spearman's correlation tests. To compare means, Student's t-test or Analysis of Variance (ANOVA) was applied. In the case of asymmetry, the Mann-Whitney or Kruskal-Wallis tests were used. The results found were means, standard deviation, coefficient of variation, minimum and maximum value, and the amplitude of each domain and QWL.

RESULTS

The study included 26 health professionals, including nurses (n=7; 26.9%), physicians (n=3; 11.5%), and nursing technicians (n=16; 61.5%), with a mean age of 44.4 years (SD = 10.5). Most of the sample was female (n=19; 73.1%), who had a partner (n= 17, 65.4%), and children (two children n= 10, 38.5%; one child n= 8; 30.8%), lived with a spouse (n=18; 69.2%), white race/color (n=19, 73.1%), followed by brown (n=7, 26.9%) (Table 1). Among the workers, most had a permanent job (n=19, 73.1%), a workload of 40 hours per week (n=22, 84.6%), and working time of 10 years or more (n=12, 46.2%), followed by 1 to 3 years (n=6, 23.1%). Among the research participants, the largest number lived in the municipality where they worked (n=22, 84.6%), had complete high school (n=11, 42.3%), followed by graduation studies (n= 9, 34.6%), and individual income ranging from 1 to 3 minimum wages (n=16, 61.5%), followed by more than 5 minimum wages (n=6, 23.1%).

Table 1. Sociodemographic profile of 26 professionals from Basic Health Units, in the city of Giruá, state of Rio Grande do Sul, between June and July 2022.

Variables	n (%)
Age (years)	44.4 ± 10.5
Gender	
Male	7 (26.9)
Female	19 (73.1)
Color	
Brown	7 (26.9)
White	19 (73.1)
Marital status	
Single	5 (19.2)
Married/Stable Union	17 (65.4)
Divorced	3 (11.5)
Widowed	1 (3.8)
Education level	
Complete high school	11 (42.3)
Incomplete higher education	4 (15.4)
Complete higher education	2 (7.7)
Graduate studies	9 (34.6)
Who do you live with	
Father/mother	2 (7.7)
Only father	1 (3.8)
Mother only	1 (3.8)
Children	15 (57.7)
Spouse	18 (69.2)
Alone	3 (11.5)
Siblings	1 (3.8)
Number of children	
None	4 (15.4)
One	8 (30.8)
Two	10 (38.5)

Source: Research data, 2022.

Table 2. Variables related to the work of the 26 professionals from Basic Health Units, in the municipality of Giruá, between June and July 2022.

Variables	n (%)
Lives in Giruá	
Yes	22 (84.6)
No	4 (15.4)
Profession	
Nurse	7 (26.9)
Nursing Technician/Assistant	16 (61.5)
Physician	3 (11.5)
Bond	
Permanent	19 (73.1)
Temporary	7 (26.9)
Workload (hours)	
30	3 (11.5)
40	22 (84.6)
Other	1 (3.8)
Working time (years)	
<1 year	2 (7.7)
1 to 3	6 (23.1)
4 to 6	3 (11.5)
7 to 9	3 (11.5)
10 or more	12 (46.2)
Income	
From 1 to 3 minimum wages	16 (61.5)
From 4 to 5 minimum wages	4 (15.4)
More than 5 minimum wages	6 (23.1)

Source: Research data, 2022.

The Physical/Health domain and the Psychological domain had the lowest “minimum value” and the lowest ‘maximum value’ in the analyzed sample, with indices of 2.500 for both minimum values and 3.941 and 4.000 as the maximum value, respectively. A mean index of 3.267 (SD= 0.362) was expressed in the Physical/Health domain and a mean index of 3.512 (SD= 0.360) in the psychological domain among the 26 participants.

The Personal domain presented the highest 'minimum value', 2.938, which is equivalent to the lowest index obtained by a health professional in this domain. Even considered low, it is above the 'minimum value' obtained in the other domains. On the other hand, the highest index obtained in this domain came very close to reaching the extreme value (index 5), with 4.677.

Even with this high value and without very low values, the mean index of the 26 health professionals was 3.867 (SD= 0.397), a result considered satisfactory, according to the adopted scale, in which the personal domain reached the

highest index of QWL of the sample. This means that the QWL of employees is at a satisfactory level from a personal point of view. The professional domain presented a QWL index of 3.281 (SD= 0.435). The lowest individual index recorded was 2,657 and the highest was 4.200.

The median of the physical domain was 56.67 points; psychological 62.79 points; personal 71.67 points; and professional 57.03 points (Figure 1).

In the graphic representation, on a centesimal scale, the mean values of each domain and the QWL index of health professionals were recorded as follows:

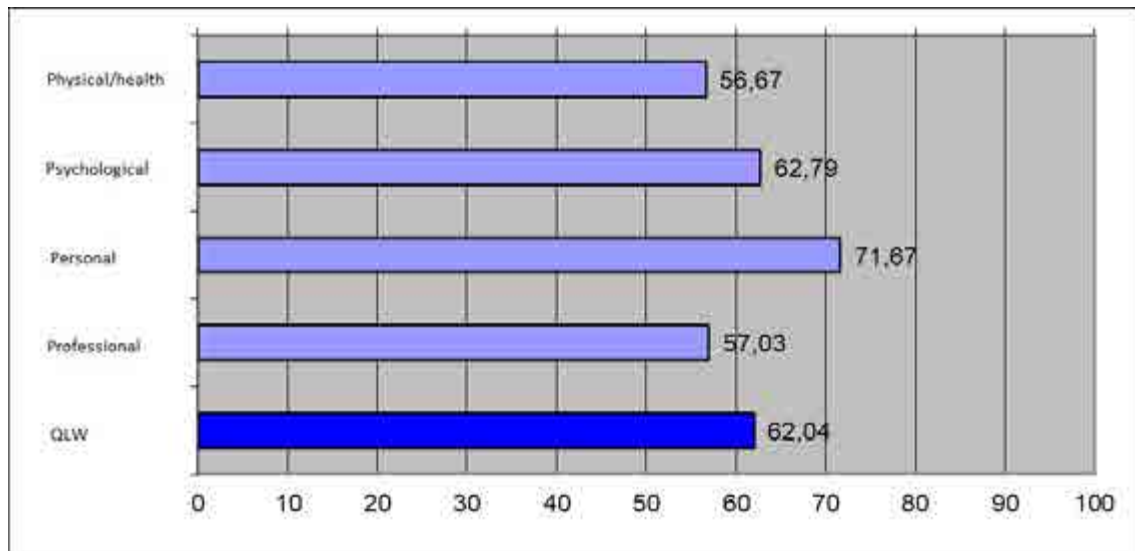


Figure 1. Final indices of the domains. Source: research data, 2022.

Box 1. Descriptive statistics for Quality of Life domains.

Domains	Mean	Standard deviation	Coefficient of variation	Minimum value	Maximum value	Range
Physical/Health	3.267	0.362	11.068	2.500	3.941	1.441
Psychological	3.512	0.360	10.262	2.500	4.000	1.500
Personal	3.867	0.397	10.263	2.938	4.667	1.729
Professional	3.281	0.435	13.251	2.657	4.200	1.543
QWL	3.482	0.313	8.983	2.755	4.089	1.334

Source: research data, 2022.

Therefore, health professionals presented, by domain, and in general, a satisfactory quality of working life.

DISCUSSION

Regarding the sociodemographic profile of health professionals, there was a predominance of women, nursing technicians, with permanent employment, weekly workload of 40 hours, and mean age of 44 years.

These results are similar to another Brazilian study, which evaluated the quality of life of nursing professionals during the COVID-19 pandemic, in which women were predominant and had a weekly workload of 31 to 40 hours¹². A similar profile was also described in a study that evaluated the quality of sleep of frontline health professionals during the COVID-19 outbreak, in which the overall mean age was 40 years, with a predominance of females¹³.

According to surveys, women represent the largest workforce, especially in activities related to health^{14,15}. A study carried out in Family Health Strategies in the South Region, in which 95.1% subjects were women, confirms the tendency towards feminization of the workforce in primary care¹⁵.

Another study analyzed the influence of the Covid-19 pandemic on the quality of working life of frontline professionals, in the municipality of Natal, state of Rio Grande do Norte, and reported similar results. This is because the overall QWL mean value was relatively positive and fit the scale as satisfactory, with a mean value of 61.20 points. The mean QWL recorded was 62.04 points¹⁶.

A study that evaluated the quality of life and stress level in health professionals working in PHC, including physicians, nurses, nursing technicians, nursing assistants, community

health agents, dentists, oral health assistants, pharmacists, physical therapists, nutritionists, psychologists, social workers, receptionists, BHU managers, and general services assistant, pointed out satisfactory QWL, which corroborates our findings and indicates intermediate levels of stress among the participants. That study used the abbreviated QWL instrument (QWLQ-BREF) and the Perceived Stress Scale (PSS 13), in which male individuals had higher scores than females in the professional domain¹⁰, differing from the present study, in which, as well as the lowest score, the highest was also represented by a woman in the professional domain.

Furthermore, health professionals, in this study, had lower QWL scores in the physical/health and psychological domains. Lower scores in the QWL physical domain were given by female health professionals, mostly nurses. As for the psychological domain of QWL, females also had lower scores. In the evaluation of the personal domain, the lowest score was also found in a female professional, who had a partner and a permanent employment relationship. And finally, for the professional domain, both men and women had low scores, but the lowest was observed in females, white race/color, who did not have a partner, who lived alone, and who had a temporary employment relationship.

A cross-sectional study evaluated the quality of life of 196 health professionals during the COVID-19 pandemic, from primary to tertiary care, and concluded that they had an intermediate quality of life during the pandemic period in Brazil. Regarding the mean scores of the WHOQOL-BREF, the psychological domain presented 62.09, a result that is in line with the mean value obtained here, which was 62.70¹⁷.

In Indonesia, a study analyzed the quality of life of health professionals during the COVID-19 pandemic and concluded that they had not only good physical and psychological health but also

moderate social and environmental relationships. The mean score in the psychological domain was 60.33, very close to the result found herein. The other domains had a mean score of 63.18 for physical health, 51.57 for social relationships, and 57.28 for the environment.

Another study, which assessed anxiety, depression, and COVID-19-related quality of life among frontline health professionals, identified mean scores of nurses in all domains of the WHOQOL-BREF, which clearly show that quality of life was not greatly affected during the pandemic, as they ranked high scores for their perception of quality of life¹⁹.

Thus, it can be concluded that the QWL of health professionals during the COVID-19 pandemic is related to sociodemographic factors, the work environment, professional activity and performance, and emotional state. In turn, job satisfaction is related to better quality of life and, in the present study, it showed positive results about the individuals who participated in the research, validating the QWL.

CONCLUSION

Quality of life includes environmental, individual, and economic aspects. During the pandemic, there was a disruption in the economic situation and social networks, in addition to a reduction in perceived social support, which can change perceptions of quality of life^{20,21}.

Our results reveal the satisfaction and quality of life at work of health professionals, adding data to the literature and subsidizing the planning of health-promoting interventions in areas that need improvement. Concluding that such professionals have a satisfactory quality of working life shows that the place where they work offers worthy conditions and that relationships with colleagues and patients are satisfactory.

In addition, the present study serves as an example for institutions that wish to improve their employees' perception of their work. Including they can also make use of the questionnaire on quality of life also applied here, to check their results and how they can improve, to offer a better quality of life at work.

Knowledge of the characteristics that impact the quality of life of health professionals and the management of these conditions is undoubtedly essential to implement interventions aimed at reducing work stress, avoiding fatigue related to the health profession, and improving care and patient safety²¹. Thus, preserving the quality of life at work of health professionals, keeping it satisfactory, is also important for the population in general.

As limitations of this study include the relatively small sample, the subjectivity of the instrument for evaluating the quality of working life, and the fact that the answers were obtained exclusively from health professionals working in primary care. Therefore, further studies in the post-pandemic context should be conducted to add data, disseminate, associate, and compare the quality of life of health professionals in the years following the coronavirus pandemic.

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