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Artigo de Atualidade
Artículo de Actualidade

DOI: https://doi.org/10.12957/reuerj.2024.85983

Professional quality of life of nursing workers in the hospital context: a cross-sectional study

Qualidade de vida profissional de trabalhadores de enfermagem do contexto hospitalar: estudo transversal

Calidad de vida profesional de los trabajadores de enfermería en el contexto hospitalario: estudio transversal

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ABSTRACT

Objective: to analyze the professional quality of life of nursing workers and identify its association with sociodemographic and professional variables. **Method:** this is a quantitative, cross-sectional study conducted with 180 nursing workers from a public hospital by applying a sociodemographic and professional questionnaire and the Professional Quality of Life Scale 4 - Brazilian version. Data were analyzed using descriptive statistics, association and correlation tests. **Results:** a higher frequency of compassion satisfaction and a lower frequency of secondary traumatic stress were evidenced. Compassion satisfaction showed a negative correlation with burnout (r=-0.21; p<0.01) and secondary traumatic stress (r=-0.23; p<0.01), while these showed a positive correlation with each other (r=0.43; p<0.001). The type of employment relationship was associated with burnout (p<0.001), the work shift with secondary traumatic stress (p=0.02), and the workplace with the three scale components (p<0.05). **Conclusion:** high employee satisfaction is a protective factor. Interventions for burnout and secondary traumatic stress are necessary and may be based on associated factors.

Descriptors: Nurse Practitioners; Work Engagement; Compassion Fatigue; Burnout, Professional.

RESUMO

Objetivo: analisar a qualidade de vida profissional de trabalhadores de enfermagem e identificar sua associação com variáveis sociodemográficas e profissionais. **Método**: estudo quantitativo, transversal, realizado com 180 trabalhadores de Enfermagem de um hospital público, com aplicação de questionário sóciodemográfico e profissional e da *Professional Quality of Life Scale* 4 - versão brasileira. Os dados foram analisados por estatística descritiva, testes de associação e de correlação. **Resultados**: evidenciou-se maior frequência de satisfação por compaixão e menor de estresse traumático. A satisfação por compaixão apresentou correlação negativa com *burnout* (r=-0,21; p<0,01)) e estresse traumático (r=-0,23; p≤0,01), enquanto estes apresentaram correlação positiva entre si (r=0,43; p≤0,001). O tipo de vínculo esteve associado ao *burnout* (p<0,001), o turno de trabalho ao estresse traumático (p=0,02), e o local de trabalho aos três componentes da escala (p<0,05). **Conclusão**: a elevada satisfação nos trabalhadores configura-se como um fator protetivo. Intervenções para o burnout e estresse traumático são necessárias, podendo basear-se nos fatores associados.

Descritores: Profissionais de Enfermagem; Engajamento no Trabalho; Fadiga por Compaixão; Esgotamento Profissional.

RESUMEN

Objetivo: analizar la calidad de vida profesional de trabajadores de enfermería e identificar su asociación con variables sociodemográficas y profesionales. **Método:** estudio cuantitativo, transversal, realizado con 180 trabajadores de enfermería de un hospital público, mediante aplicación de un cuestionario sociodemográfico y profesional, y la *Professional Quality of Life Scale 4* - versión brasileña. Los datos se analizaron mediante estadística descriptiva, pruebas de asociación y de correlación. **Resultados:** se evidenció mayor frecuencia de satisfacción por compasión y menor de estrés traumático. La satisfacción por compasión mostró correlación negativa con el *burnout* (r=-0,21; p<0,01) y el estrés traumático (r=-0,23; p<0,01), mientras que estos presentaron una correlación positiva entre sí (r=0,43; p<0,001). Tipo de vínculo laboral se asoció con *burnout* (p<0,001), turno de trabajo con estrés traumático (p=0,02) y lugar de trabajo con los tres componentes de la escala (p<0,05). **Conclusión:** la elevada satisfacción de los trabajadores configura factor protector. Se necesitan intervenciones para el *burnout* y el estrés traumático, las cuales pueden basarse en los factores asociados.

Descriptores: Enfermeras Practicantes; Compromiso Laboral; Desgaste por Empatía; Agotamiento Profesional.

INTRODUCTION

The theoretical model of professional quality of life (ProQoL) is based on the ambivalence between satisfaction and fatigue which arise from the work of helping people in distress. The author of the model describes that this type of work arouses compassion in the worker for others who are suffering, which, combined with other personal and

This study was financed in part by the *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior* (*CAPES*) – Brazil, finance code 88881.190017/2018-01.
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Editor-in-chief: Cristiane Helena Gallasch; Associate editor: Magda Guimarães de Araujo Faria

Received: July 17th 2024 – Accepted: Nov 27th 2024

Update Article
Artigo de Atualidade
Artículo de Actualidade

DOI: https://doi.org/10.12957/reuerj.2024.85983

organizational factors of the worker and the person in distress, can generate exhaustion, stress and trauma, but also satisfaction, pleasure and joy. Based on this duality, the model incorporates two aspects: Compassion Satisfaction (CS) and Compassion Fatigue (CF)[1-3].

CS is the positive pole of ProQoL and refers to the pleasure that the professional feels for doing their job well and helping other people, and can develop a positive view of their colleagues or their ability to contribute to the work environment or even to the greater good of society. On the other hand, CF is the negative side and is divided into two dimensions. The first concerns feelings such as exhaustion and frustration typical of burnout, and the second is Secondary Traumatic Stress (STS), which can be understood as a negative feeling motivated by fear and work-related trauma. Burnout is associated with feelings of hopelessness and difficulties in coping with work or doing one's job effectively, while STS is related to exposure to extreme stressful and traumatic events at work[1-3].

A study which aimed at conceptually analyzing CS identified that this phenomenon has been related to the empathic relationship established with the patient and/or family, the support of colleagues and supervisors, the development of resilience and coping mechanisms, the practice of self-care, and the balance between work and life with social support. Professionals who experience CS may feel well-being, fulfillment, reward, achievement, joy, enrichment, invigoration, inspiration, revitalization, and hope. Consequently, CS can result in care with more enthusiasm, competence, and engagement, enhancing a positive work environment[4].

On the other hand, burnout in nursing professionals has been related to negative repercussions, such as a higher rate of headaches and dizziness[5] and ergonomic changes[6], in addition to behavioral issues such as less healthy habits, high fast food consumption, low physical exercise frequency, higher alcoholic beverage consumption, and more frequent analgesic medication use[7]. Furthermore, studies point to the influence of burnout as a mediator of depressive symptoms[8,9]. Although the prevalence and incidence of burnout varies among health professionals, this phenomenon has been strongly demonstrated in nursing professionals, as exemplified by a study carried out in a Brazilian public hospital with 171 nurses, which demonstrated a 62.6% prevalence of burnout[10].

Negative effects in the case of STS may include sleep difficulties due to feelings of fear, intrusive images, or memory avoidance of the patient's traumatic experiences. Additionally, STS can impact the worker's resilience and performance, negatively affecting their performance in care. Furthermore, STS leads to emotional withdrawal, making social relationships at both work and in personal life difficult.

Nursing workers are susceptible to developing both CS and CF due to the nature of work in hospital care. In this sense, the ProQoL model has been widely used in research worldwide, highlighting the CS and CF levels in these workers[12,13], ss well as the implications of these aspects on care behaviors[14], care quality[15], and patient safety culture[16,17]. Studies have also explored the relationship between ProQoL and other factors, such as support from the organization and resilience of the professional. Furthermore, initiatives have been implemented to develop programs aimed at reducing CF and improving CS in the hospital context[19,20].

Despite the importance of studying these aspects in the nursing team and developing interventions to enhance improvements in ProQoL, there is little research addressing this model in the Brazilian hospital context. This knowledge can elucidate how CS and CF are expressed in this population, allowing us to recognize the phenomenon and foster future efforts to improve ProQoL.

In view of the above, this study aimed to analyze the professional quality of life of nursing workers in the hospital context and identify the association of ProQoL with the workers' sociodemographic and professional variables.

METHOD

This is an exploratory, analytical, cross-sectional study with a quantitative approach based on the guidelines for observational studies (Strengthening the Reporting of Observational Studies in Epidemiology - STROBE)[21].

Data collection took place from January to March 2020 at a general public teaching hospital in the metropolitan region of Salvador, in the state of Bahia, Brazil. The health facility is directly administered and part of the Bahia State Health Department's own network. It has 640 operational beds, configuring it as a large, reference hospital with a highly complex, tertiary, and care-based profile. The population consisted of nursing workers, including nurses, nursing technicians, and nursing assistants from the medical clinic, surgical clinic, adult and neonatal intensive care, and obstetric units who provided direct care to patients. The exclusion criteria were: workers with less than six

DOI: https://doi.org/10.12957/reuerj.2024.85983

months in the institution, who were on vacation, leave and/or absence from work at the time of data collection, and those who exclusively performed administrative activities. The number of eligible workers after applying these criteria was 420.

This study derives from a broader study which aimed to correlate ProQoL with patient safety culture, and therefore the sample calculation was based on a correlation coefficient ≥0.25, a significance level of 5% and a test power of 90%. Based on these parameters, data were collected from 180 nursing workers. The sampling type was non-probabilistic by convenience.

Data collection occurred through application of a sociodemographic and professional questionnaire to characterize the sample and the Professional Quality of Life Scale 4 (ProQol IV)[2] translated and validated for Brazil[22], named by the authors responsible for its translation and validation as ProQol-BR, consisting of 28 questions distributed among three components: 1) Compassion satisfaction (CS): refers to pride, the feeling of being able to make a difference in people's lives, enthusiasm and satisfaction in caring for others, and also mentions the professional's judgment about their performance, as well as broader aspects, such as their happiness; 2) Secondary traumatic stress (STS): addresses tension, stress and "emotional contagion" related to working with people in distress, encompassing the harmful effects of secondary exposure to stressful events; 3) Burnout: encompasses aspects related to emotional exhaustion, a feeling of lack of energy and discouragement, addressing the feeling that work activities seem so overwhelming and difficult that they seem to suffocate the professional[22].

The ProQol-BR is considered a sociopsychological scale that quantitatively classifies subjective aspects such as attitudes, perceptions and psychological traits. In this sense, it adopts the following scalar response measure in five levels: rarely (1), a few times (2), sometimes (3), often (4) and almost always (5).

The analysis suggested by the author of the original instrument using cut-off points in the subscales[2] was not feasible for this analysis, since the questionnaire translated and validated for Brazil presented a different configuration from the original scale in allocation and number of items per component. In addition, the authors of the Brazilian version of the instrument did not define any parameters for interpreting the ProQol-BR data[22]. Therefore, it was decided to analyze ProQoL using descriptive statistics, calculating absolute and relative frequencies for each item of the ProQoL instrument. Moreover, a calculation of means and standard deviations, maximum and minimum values, median, and quartiles for each of its components was implemented. The ProQoL-BR incorporates the following psychometric measures: rarely=1, a few times=2, sometimes=3, often=4, almost always=5. Thus, the higher the score, the greater the intensity of the aspects related to CS, burnout and STS.

The employees were invited to participate in the study in person at their workplace. Those who agreed to participate were given a time period to return the completed questionnaire, which varied according to the availability of the participants. The average time to answer the questionnaires was 20 to 25 minutes. The collection was performed by the main researcher with the help of three nursing undergraduates from a state university in Bahia.

The sociodemographic and professional data were analyzed using descriptive statistics. The Spearman correlation test was used to analyze the relationship between the ProQoL components.

Next, the following variables were organized as independent to analyze the variation in ProQoL regarding sociodemographic and professional characteristics: gender, marital status, professional category, education level, workplace, type of employment relationship, work shifts, number of employment relationships, age, length of professional experience, and length of service experience. In addition, CS, burnout, and STS were considered dependent variables.

Bivariate association tests were subsequently applied, namely: Student's t-test, Wilcoxon-Mann-Whitney test, the Brunner-Munzel test for dichotomous categorical independent variables, and the Kruskal-Wallis test and ANOVA model for categorical variables with three or more levels. The Spearman correlation test was used for numerical independent variables to assess the association with dependent variables. Residual normality was assessed using the Shapiro-Wilk test, and homoscedasticity was assessed using the Levene test. The significance level adopted was 5% (95% confidence level) for all tests implemented. The statistical program R was used to perform the analyses[23].

The research protocol was approved by the Research Ethics Committee (REC) of a higher education institution and by the REC of the hospital where the study was conducted. The participants' consent was given by signing the Informed Consent Form, guaranteeing their autonomous, conscious, free and informed participation in the study.

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RESULTS

The sample consisted of 180 nursing workers, of whom 158 were female (87.8%), 74 were single (41.8%) and 67 were between 39 and 48 years old (38.3%). The largest professional category was nursing technicians (n=95; 52.8%), followed by nurses (n=73; 40.6%). The most prevalent education level was high school (n=64; 35.8%).

The activity area in the institution had 62 workers assigned to surgical clinics (34.4%), 37 to medical clinics (20.6%) and 36 to the adult intensive care unit (20.0%). For professional experience, 47 had between 10 and 14 years (26.1%), and 89 had between six months and four years (49.4%) regarding their experience time in the institution. Furthermore, the majority had a contract governed by the Consolidation of Labor Laws (CLT) via an outsourced company (n=104; 60.1%), 97 worked rotating shifts (54.8%) and 89 had two employment relationships (49.4%) for the type of employment relationship. The distribution of relative and absolute frequencies for each ProQoL item can be seen in Table 1.

Table 1: Distribution of response percentages: Rarely; A few times; Sometimes; Often; and Almost Always for the Professional Quality of Life items. Salvador, BA, Brazil, 2020.

	Responses* (%)				
Item	**1**	**2**	**3**	**4**	**5**
Compassion Satisfaction					
q1 - I feel happy (n=168)	0.0	4.8	22.6	45.8	26.8
q2 - I have concerns about more than one person I am helping (n=179)	1.1	3.4	18.4	41.9	35.2
q3 - I feel satisfied that I am able to help people (n=180)	0.0	1.1	10.6	34.4	53.9
q4 - I feel connected to others (n=179)	2.2	10.1	31.3	39.7	16.8
q6 - I feel excited after attending the people I help (n=179)	1.7	3.9	10.1	41.9	42.5
q12 - I enjoy my work helping people (n=180)	1.1	4.4	5.0	34.4	55.0
q15 - I have beliefs that sustain me (n=179)	21.8	7.3	10.1	20.1	40.8
q16 - I feel satisfied that I am able to keep up to date with customer service techniques and procedures (n=180)	5.0	3.9	15.6	34.4	41.1
q17 - I am the person I always wanted to be (n=178)	3.9	5.6	23.0	36.5	30.9
q18 - I feel satisfied with my work (n=180)	5.0	5.6	25.0	32.8	31.7
q20 - I have good thoughts and feelings about those I help and how I could help them (n=180)	2.2	1.7	10.6	49.4	36.1
q22 - I believe I can make a difference through my work (n=178)	2.8	5.1	7.9	36.5	47.8
q24 - I am proud of what I can do to help (n=178)	4.5	1.7	12.4	41.0	40.4
q27 - It occurs to me that I am successful in my work (n=178)	7.3	10.7	27.0	35.4	19.7
q30 - I am happy that I chose this job (n=178)	2.2	5.0	19.4	30.6	42.8
Burnout					
q19 - I feel exhausted because of my work (n=179)	10.1	11.2	34.6	30.7	13.4
q21 - I feel suffocated by the amount of work and the number of patients I need to see (n=180)	12.2	12.2	35.6	21.1	19.9
q26 - I feel suffocated by the system in which I work (n=179)	34.1	17.3	24.6	14.0	10.1
Secondary Traumatic Stress					
q5 - Unexpected sounds scare me or startle me (n=180)	30.6	22.8	25.0	10.6	11.1
q7 - I find it difficult to separate my professional life from my personal life (n=179)	42.5	16.8	19.6	10.1	11.2
q8 - I lose sleep over the traumatic experiences of someone I care for (n=180)	38.3	22.8	26.1	8.9	3.9
q9 - I believe that I may have been “infected” by the traumatic stress of those I care for (n=180)	46.1	27.2	16.7	8.3	1.7
q10 - I feel trapped by my job of caring for others (n=179)	53.9	28.3	7.8	5.0	5.0
q11 - I feel tense about several things because of my job (n=180)	37.8	21.1	20.0	13.3	7.8
q13 - I feel depressed because of my job (n=178)	55.6	19.7	15.7	5.1	3.9
q14 - I feel as if I am living through the trauma of someone I care for (n=180)	58.3	21.7	13.3	5.6	1.1
q23 - I avoid certain activities or situations because they remind me of the scary experiences of the people I help (n=179)	47.5	23.5	14.5	8.9	5.6
q25 - I have invasive and frightening thoughts as a result of my work (n=179)	63.7	21.2	6.7	7.3	1.1

Notes: 1 = Rarely; 2 = A few times; 3 = Sometimes; 4 = Often; 5 = Almost always.

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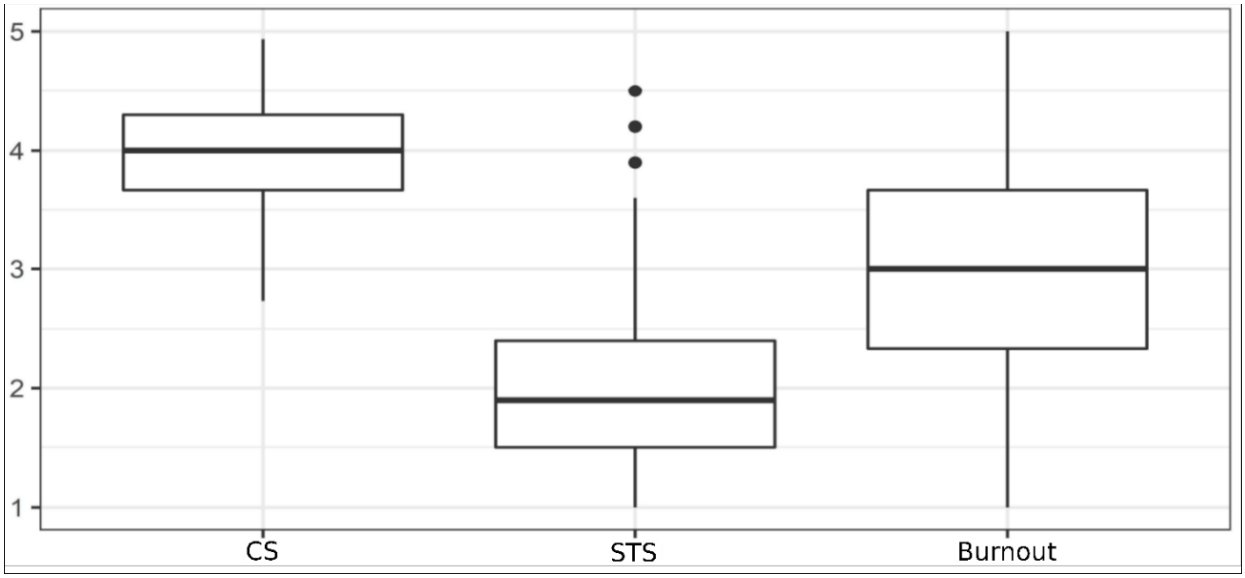
Compassion Satisfaction (CS) presented the majority of responses in the classification “often” and “almost always”, indicating high frequency among workers. The items related to burnout demonstrated greater exhaustion intensity due to work and the demand for care, as well as the feeling of suffocation by the system in which they work to a lesser extent. Secondary Traumatic Stress (STS) presented a predominance of responses “rarely” or “a few times”, demonstrating that it is a phenomenon with less frequency among workers.

Figure 1 presents the ProQoL results regarding their distribution, evidencing the dispersion, position, symmetry, and atypical values (outliers) of CS, burnout and STS.



Notes: CS - Compassion Satisfaction; STS - Secondary Traumatic Stress.
Figure 1: Boxplot representing the distribution of scores for CS, STS and Burnout. Salvador, BA, Brazil, 2020.

CS presented the highest values for the mean (μ), standard deviation (SD), median (md), 1st (Q1) and 3rd (Q3) quartiles (md=4.00; μ=3.99(+0.46); Q1=3.66; Q3=4.32), followed by Burnout (md=3.00; μ=2.99(+0.94); Q1=2.33; Q3=3.67), and finally STS (md=1.90; μ=2.01(+0.68); Q1=1.50 and Q3=2.40).

In view of the aforementioned data and Figure 1, it can be seen that CS achieved the highest score and the lowest variance, concentrated in the upper portion of the Boxplot. In turn, Burnout presented the highest variance in the sample, making it possible to note its wide dispersion. The lowest score regarding STS was evident with its distribution essentially in the lower part of the boxplot; however, it presented outliers above the third quartile, revealing the presence of some workers with higher levels and therefore with atypical values in the sample regarding STS.

For the correlational analysis between the ProQoL components, CS presented a significant negative correlation with Burnout with a correlation coefficient (r=-0.21; p=<0.01) and with STS (r= -0.23; p=<0.01), while Burnout and STS presented a significant positive correlation with each other (r= 0.43; p=<0.001).

The association of ProQoL with sociodemographic and professional variables is shown in Table 2.

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Table 2: Analysis of the association between compassion satisfaction, burnout and secondary traumatic stress with the independent variables. Salvador, BA, Brazil, 2020.

Variable		CS		Burnout		STS	
	n	M (SD)	p-value	M (SD)	p-value	M (SD)	p-value
Sex			0.06[a]		0.58[e]		0.21[b]
Female	158	3.97 (0.46)		2.98 (0.90)		2.04 (0.69)	
Male	22	4.16 (0.43)		3.06 (1.24)		1.85 (0.62)	
Civil status			0.58[a]		0.12[a]		0.50[b]
Companion	88	4.01 (0.46)		3.10 (0.95)		2.00 (0.72)	
No companion	89	3.97 (0.47)		2.88 (0.92)		2.05 (0.65)	
Professional category			0.50[a]		0.45[b]		0.12[b]
Nursing technician	106	3.97 (0.47)		3.02 (1.00)		2.10 (0.74)	
Nurse	73	4.02 (0.45)		2.95 (0.87)		1.90 (0.57)	
Employment status			0.20[a]		**< 0.001[a]**		0.10[b]
Contract	104	4.02 (0.47)		2.82 (0.97)		1.97 (0.72)	
Statutory	69	3.93 (0.45)		3.30 (0.81)		2.08 (0.62)	
Work shifts			0.63[a]		0.34[a]		**0.02[b]**
Fixed	80	3.97 (0.50)		3.07 (0.96)		2.11 (0.65)	
Rotating	97	4.00 (0.43)		2.94 (0.92)		1.92 (0.70)	
Number of employment relationships			0.77[a]		0.60[b]		0.16[b]
One	87	4.00 (0.44)		2.97 (0.92)		2.09 (0.71)	
Two or more	93	3.98 (0.48)		3.01 (0.97)		1.94 (0.66)	
Education level			0.58[c]		0.55[c]		0.42[d]
High School	64	3.99 (0.43)		2.89 (1.00)		2.03 (0.75)	
Undergraduate	49	3.93 (0.47)		2.97 (0.79)		2.06 (0.75)	
Specialization	47	3.99 (0.47)		3.13 (0.99)		1.90 (0.58)	
Master's Degree	19	4.11 (0.51)		3.11 (1.03)		2.16 (0.56)	
Work location			**< 0.001[c]**		**<0.01[c]**		**0.02[d]**
Surgical clinic	62	4.01 (0.41)		2.78 (0.90)		1.91 (0.60)	
Medical clinic	37	4.19 (0.36)		3.09 (0.95)		1.89 (0.72)	
Obstetric unit	18	3.67 (0.53)		3.07 (0.64)		2.18 (0.80)	
AICU	36	4.16 (0.44)		2.85 (1.18)		1.97 (0.68)	
NICU	27	3.63 (0.37)		3.48 (0.66)		2.37 (0.67)	

Notes: [a]Student's t-test; [b]Wilcoxon-Mann-Whitney test; [c]ANOVA model; [d]Kruskal-Wallis test; [e]Brunner-Munzel test; AICU: Adult Intensive Care Unit; NICU: Neonatal Intensive Care Unit; CS: compassion satisfaction; STS: secondary traumatic stress.

The type of employment relationship was associated with burnout among statutory workers, as they had higher averages. The work shift was associated with STS for fixed-shift workers, as they had higher STS rates. The workplace was associated with the three ProQoL components, with workers who worked in maternal and child care units (Obstetrics-OB and Neonatal Intensive Care Unit-NICU) presenting the lowest means for CS and the highest for STS; the highest scores in relation to burnout were evidenced in the NICU, followed by the Medical Clinic and Obstetric unit.

The ProQoL aspects were not associated with sex, marital status, professional category, number of employment relationships, education level, age, professional experience or service experience.

DISCUSSION

The high frequency of items related to CS, as well as their high mean and median, represent a positive result and demonstrate that most workers maintained satisfaction in providing care to patients, despite all the challenges imposed on the nursing team in exercising their profession.

Other repercussions in addition to the well-being and positive feelings provided by satisfaction to the worker[4] may arise, such as better care for patients, since higher levels of CS were related to a better patient safety culture[16] and greater compliance with quality protocols[15]. Furthermore, since CS is negatively correlated with CF, and therefore constitutes a protective factor against STS and burnout[3,4], it is believed that these high levels may help to balance ProQoL, helping workers to deal with the emotional exhaustion and traumatization that may result from caring for others in distress.

The frequency of responses in the case of burnout showed a considerable percentage of the sample with exhaustion due to work and the demand for care. Burnout is one of the most harmful forms of aggression to the health

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and well-being of workers. In the current context, the model adopted by organizations in modern society is based on intensified and precarious work; reduced rest time; and an emphasis on multi-tasking. In view of this, the conditions are created to trigger stress at work and burnout[24].

Nursing workers in the hospital care environment are certainly not immune to this configuration, but on the contrary, they are completely exposed to chronic stressors at work. Thus, the risk of illness due to burnout is clearly noted due to the work organization combined with the specific characteristics of dealing with the suffering of patients and their families on a daily basis.

Burnout affects nursing workers, with negative repercussions on their physical[5-7,25] and mental[8,9] health. This phenomenon additionally affects healthcare organizations, causing more absences, absenteeism[25] and turnover, and even increasing personnel costs[26]. Furthermore, patients are truly impacted given the negative relationship between patient safety culture[16,17] and burnout, and low compliance with safety and quality of care protocols when professionals experiences higher burnout[15].

The type of employment relationship was associated with burnout; workers with statutory employment relationships had higher averages, corroborating research conducted using the Maslach Burnout Inventory-Human Services Survey (MBI-HSS), which showed an association between statutory employment relationships and the emotional exhaustion and depersonalization dimension of burnout[10]. Research also using the ProQoL model did not find this association with burnout, but with CS, with outsourced workers showing greater satisfaction[27]. Another study showed that the professional fulfillment dimension of burnout was higher among workers with non-permanent employment contracts[28].

Regarding the findings of the above cited study, it is possible to infer the possibility that workers without job security do not feel comfortable expressing their exhaustion in relation to work, or even that workers with job security and permanent employment contracts may experience greater exhaustion resulting from personal and organizational incompatibility from greater expectations and dedication in relation to work due to their longer tenure in the organization, generating higher scores related to burnout.

It is worth noting that burnout is included in the list of work-related illnesses in Brazil, and presents the following agents and/or risk factors: psychosocial aspects related to the organizational management, the work organization context, the characteristics of social relationships at work, the content of work task, the work environment conditions, the person-task interaction, the work day, violence and moral/sexual harassment at work; discrimination at work, and the risk of death and trauma at work[29].

In view of this, it is important to highlight that the author of the ProQoL scale makes a reservation emphasizing that this scale is not a diagnostic test, informs that it can be used for research purposes and is a guide to assess the balance of positive and negative experiences related to work. High CS scores for an individual or an organization are a reflection of positive involvement with work; however, the higher the scores for burnout and STS, the greater the risk of emotional imbalances between the person and their work[3].

STS presented the lowest mean and median, as well as a predominance of the answers “rarely” or “a few times”, demonstrating that it is a phenomenon with less frequency in the studied sample. However, the percentages that demonstrate the existence of workers with a high frequency of STS aspects and the presence of outliers in the upper part of the boxplot cannot be overlooked, as they represent workers with the effects of secondary traumatization at work.

The work shift was associated with STS, with fixed-shift workers presenting higher STS averages. One explanation may be related to the relationship established between these workers and patients and families, since they are at the hospital on the same days and times and can monitor cases more continuously, and consequently become more emotionally involved, precipitating more traumatization in the face of suffering.

The workplace was associated with the three ProQoL components. In view of this, it is reflected that the work sector brings specificities related to the work process and organization, the team and the clinical profile of patients that influence ProQoL. This result indicates the need to create ProQoL improvement programs aimed at hospital units, more effectively reaching the most vulnerable workers. The results related to the maternal and child units that presented lower CS and higher CF are in line with another study on STS with nurses. The authors found that the bond established is especially strong when the patient is a child, exacerbating the risk of STS, and that nurses reported more suffering when caring for child patients, especially after becoming

DOI: https://doi.org/10.12957/reuerj.2024.85983

mothers[30]. Therefore, it can be inferred that caring for patients in this area may be related to higher STS and burnout scores, and consequently lower CS.

Regarding the association between the ProQoL components, CS showed a significant negative correlation with burnout and STS, while these two showed a positive correlation with each other. The results corroborate other studies[14,16,22] and confirm that CS is a protective factor for CF[4], and that the worker tends to feel less CS by increasing CF. Furthermore, the association of STS with burnout demonstrates that these aspects are associated despite their distinct constructs; they may share psychopathological symptoms, and one may influence the other.

In this sense, a study with intensive care nursing workers demonstrated that STS affected burnout, but its impact was mediated by the worker's resilience[14]. Additionally, another study identified STS as a factor in burnout among nurses and indicated that it could result in avoidance dependence and experience of emotional exhaustion and depersonalization, both related to burnout[31]. Therefore, traumatic experiences at work can result in psychological burdens and be another stressor for workers. The risk of burnout and STS combining is highlighted here, because if this occurs, the worker suffers more and is at greater risk of developing depression due to the work environment[3].

In view of the above, initiatives aimed at improving ProQoL should be implemented, understanding the complexity and multifactoriality that influences it, aiming to improve CS and reduce CF. These strategies can and should be developed at an individual, collective, and especially organizational level. The organization's behavior undoubtedly influences the ProQoL of workers. A recent study showed that organizational support has a positive relationship with CS and a negative relationship with burnout. In this context, the organization can promote and support strategies aimed at improving ProQoL, such as using programs aimed at the well-being of workers like the use of a smartphone application for daily practice aimed at strengthening resilience stimulated through gratitude, physical exercise and mindfulness. Such practices can impacted the ProQoL, physical activity and happiness level of health professionals in a neonatal intensive care unit. Another example concerns a recovery and resilience program aimed at stimulating five skills: self-regulation; perceptive maturity; intentionality; self-care; and connection and support in nursing workers. The aforementioned program proved to be effective in reducing burnout and STS, and increasing CS[20].

Study limitations

The study's limitations include sample being restricted to just one hospital, the difficulty in comparing the sample with others due to the lack of parameterization of the PROQol BR scale analysis, and the fact that data collection occurred at a time when everyone's main concern was understanding the rapid spread, transmission and deaths from Covid-19 around the world. This scenario amplified the difficulties faced by healthcare workers, especially nursing professionals working on the front line.

CONCLUSION

It was possible to analyze the professional quality of life (ProQoL) of nursing workers working in the hospital context according to the model used. In addition to the positive CS result, the significant negative correlation with burnout and STS stood out, which denoted satisfaction in providing care to patients, as well as a form of protection against developing burnout and STS and of balancing ProQoL.

In turn, the association of ProQoL with sociodemographic and professional variables allowed us to more significantly identify burnout in statutory professionals and in the maternal and child area, which also showed an association with STS. These two components present a positive correlation which can increase suffering of professionals in the work environment, and so there is an urgent need to implement organizational, collective/group and individual actions to minimize their harmful effects for both professionals and repercussions on the quality and safety of nursing care.

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Conceptualization, E.M.S.S.B. and M.M.M.; methodology, E.M.S.S.B., C.M.P., R.R.S. and M.M.M.; formal analysis, E.M.S.S.B.; investigation, E.M.S.S.B.; resources, E.M.S.S.B.; data curation, E.M.S.S.B.; manuscript writing, E.M.S.S.B.; writing – review and editing, E.M.S.S.B.; C.M.P., R.R.S., A.C.A.G. and S.M.S.; visualization, E.M.S.S.B.; R.R.S., A.C.A.G. and S.M.S.; project administration, E.M.S.S.B. and M.M.M.; financing acquisition, E.M.S.S.B. All authors read and agreed with the published version of the manuscript.