

Nurses' Self-Evaluation of Health and Quality of Life Inside the Workplace

ORIGINAL

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Abstract

The study's objective was to report the nurses' self-evaluation of health and quality of life, associated with the socioeconomic characterization. Transversal study, with a sample of 190 nurses, in a state's reference general hospital. For procedures of descriptive analysis and inferences, the Statistical Package for Social Sciences 13.0 used. The comparison of averages was made, using statistical tests: Mann-Whitney, Friedman, t of Student and ANOVA. For the accomplishment of correlation analysis, the Spearman's correlation coefficient was used. The study strictly followed the regulation of national and international research. One observes a population mainly composed of women, with average age of 36.04 years old, working in nursing for 9.05 years, with family income of R\$ 8,410.11 and weekly workload of 47.16 hours. The satisfaction with health had a score of 57.50 and the quality of life's self-evaluation, 61.32. Through the findings, it was possible to demonstrate the existing correlation between the workload's increase and a worst self-evaluation regarding the quality of life.

Introduction

The self-evaluation of health is able to extract the individual perception about global aspects and real values, indicated by a response that characterize itself as a personal judgement about the physical, mental and social quality of life, considering the cultural aspects [1]. The health state's self-evaluation is composed by an indicator that is reliable and equivalent to other more complex measures for the health state's mensuration, in addition to be easily applicable [2]. Similar terms,

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such as health's self-perception, self-referred health condition, self-referred health state and subjective health state are also used by the literature [3].

Considering the health concept as a complete state of the physical, mental and social well-being and not merely the absence of disease, the health satisfaction encompasses complex and comprehensive aspects [4]. Therefore, the economic, social, behavior and, above all, the education level differences seems to intervene on the patterns of health's self-perception among the individuals [2].

Health and quality of life seems to be on a fine line, being impossible to keep both concepts far from each other. Quality of life was defined by the World Health Organization as "the individual's perception of their position in life, in the context of culture and value systems where they live and in relation to their objectives, expectative, patterns and worries" [4].

The association between the self-perception of health and quality demonstrate the proximity among those two terms in theoretical and practical aspect, since the indicators to evaluate a population's health evolved from the average mortality rate to the ones of quality of life and this kind of investigation is frequent among elderly population [5].

Studies show an association between be working and a better quality of life and health perception, suggesting that the participation on labor activities might have positive influence on the population's health perception and quality of life when they become adults [6].

Nurses, however, deal with unhealthy environments and stressful situations that might generate negative consequences for health and quality of life. To gather information about the worker's self-perception of health and quality of life of from a hospital unit might contribute to the adoption of preemptive measures [7]. Therefore, the following inquiries appeared: what evaluation the nurses make from their health and quality of life? Which variables intervene on this evaluation?

In this direction, the present study has as objectives: To investigate the nurses' evaluation of their health and quality of life and present the intervening variables.

Methods

Transversal study, made in the months of June to November, 2014, in a state's reference general hospital. The population was composed of 640 nurses from the hospital. To calculate the sample's size, the p was set at 50%, significance level of 5% ($Z_{\alpha} = 0.05$) and absolute sampling error of 6% ($E = 0.06$). These values applied on the formula for finite populations ($N = 640$), provided a sample of 190 professionals. The inclusion conditions were: nurses acting on the same hospital unit with minimum permanence of one year. All units were selected: emergency, Intensive Care Unit (ICU), Unit of Special Care, medium-sized clinics, surgical clinics, surgical center, Central of Material and Sterilization, ambulatories and administrative/management sectors. The exclusion conditions were: professionals that were under medical license or on vacations during the period of data gathering or with work time of less than one year. Study participants were captured in their unit of work through the visit of the researcher on every day of the week and work shifts.

Regarding the surveys' application, the The World Health Organization Quality of Life (WHOQOL-bref) and a form were used, approaching the following variables: gender, age, Nursing work time, family income and weekly workload.

WHOQOL-bref is an instrument that evaluate the satisfaction with health and quality of life containing Likert type responses, varying from 1 to 5. The questions were: "How would you evaluate your quality of life? (very bad, bad, neither bad nor good, good, very good) and "How satisfied are you with your health? (very unsatisfied, unsatisfied, neither satisfied nor unsatisfied, satisfied, very satisfied).

The gathered data were inserted in an electronic spreadsheet of Excel (2007) and, for procedures of descriptive analysis and inferences, the Statistical Package for Social Sciences 13.0 as used. The comparison of averages was made, using the following statistical tests: Mann-Whitney, Friedman, t of Student and ANOVA. For the accomplishment of correlation analysis, the Spearman's correlation coefficient was used.

The study strictly followed the regulation of national and international research. The number of the Ethics and Research Committee is 530,652.

Results

The results will show the nurses' profile and the studied variable's relation with the self-evaluation of health and quality of life. Through the charts it will be possible to see the variable's frequency, averages and standard deviation of the socioeconomic variables, averages and standard deviation of satisfaction with health and from self-evaluation of the quality of life according to the variables, and linear correlation of the satisfaction with health and self-evaluation of the quality of life with the variables.

It was possible to observe the predominance of women (90%, n = 171), with an age group of 23 to 40 years old (72.6%, n = 138), working as a nurse from one to five years (58.9%, n = 112), with family income between R\$ 5,801.00 to R\$ 10,000.00 (42.6%, n = 81) and weekly workload of 41 to 60 hours (58.4%, n = 111) (Chart 01).

The nurses' profile found on the current study was of professionals with an average age of 36.04 years old (± 10.35), working as a nurse for 9.05 years (± 9.54), with family income of R\$ 8,410.11 ($\pm 5,70.78$) and weekly workload of 47.16 hours (± 16.16) (Table 1).

In relation with health, the overall average was around 57.50 (± 24.25) and there was no statistically significant difference between the variables (gender, age group, work time as a nurse, family income

Table 1. Frequency, percentage and averages for continuous variables.

	Average	Standard deviation	n	%
Gender				
Female	-	-	171	90
Male	-	-	19	10
Total	-	-	190	100
Age group (year)				
23-40	-	-	138	72.6
41-66	-	-	52	27.4
Total	36.04	10.35	190	100
Working time in nursing (year)				
1-5	-	-	112	58.9
6-10	-	-	27	14.3
11-38	-	-	51	26.8
Total	9.05	9.54	190	100
Family income (R\$)				
Up to 5800	-	-	60	31.6
5801- 10000	-	-	81	42.6
10000- 30000	-	-	42	22.1
Did not answered	-	-	7	3.7
Total	8,410.11	5,070.78	190	100
Weekly workload (hour)				
20-40	-	-	79	41.6
41-60	-	-	111	58.4
Total	47.16	16.16	190	100

Source: Research data, 2017.

and weekly workload). For the self-evaluation of the quality of life, the overall average was around 61.32 (± 21.29) and only the variable, weekly workload ($p = 0.00$), had a statistically significant difference. Nurses with workload of 20 to 40 hours, (66.14 ± 17.92) showed a better evaluation of their quality of life than the nurses that work from 41 to 60 hours (57.88 ± 22.86) (Table 2).

Through the analysis of the linear correlation, one identifies that there was no correlation between the satisfaction with health and the studied variables ($p > 0.05$). The quality of life's self-evaluation showed a negative correlation ($p < 0.05$ and $r = - 0.24$) with the weekly workload, in other words, as the wee-

Table 2. Analysis of the averages of health evaluation and quality of life according to continuous variables.

	Satisfaction with health			Self-evaluation of the quality of life		
	Average	Standard deviation	p	Average	Standard deviation	p
Gender						
Female	57.60	24.42	0.86	61.26	21.72	0.91
Male	56.58	23.34		61.84	17.42	
Age group (year)						
23-40	57.61	24.47	0.92	61.23	20.94	0.93
41-66	57.21	23.92		61.54	22.39	
Working time in nursing (year)						
1-5	58.70	24.82	0.68	62.50	19.85	0.31
6-10	54.63	23.03		55.56	23.34	
11-38	56.37	23.90		61.76	23.10	
Family income						
Up to 5800	60.83	23.63	0.38	60.83	19.18	0.71
5801-10000	56.79	24.69		60.49	23.67	
10000-30000	54.17	25.25		63.69	19.29	
Weekly workload (hour)						
20-40	58.86	24.03	0.52	66.14	17.92	0.00
41-60	56.53	24.47		57.88	22.86	
Overall	57.50	24.25	-	61.32	21.29	-

Source: Research data, 2017.

Table 3. Linear correlation of health evaluation and quality of life according to continuous variables.

	Satisfaction with health		Self-evaluation of the quality of life	
	r_s	p	r_s	p
Age	-0.06	0.43	-0.03	0.65
Working time in nursing (year)	-0.07	0.35	-0.03	0.64
Family income	-0.09	0.20	0.05	0.48
Weekly workload (hour)	-0.02	0.70	-0.24	0.001

Source: Research data, 2017.

kly workload gets bigger, the self-evaluation of the quality of life gets worse, indicating an intervening factor in the nurse's quality of life (Table 3).

Discussion

The presented data corroborates with the nurse's profile found on other states. In relation to the gender variable, 90% of the sample was made up of women. Such data shows the reality among the Brazilian nursing. Most of the nursing professionals are female, which corresponds to 87.24%, on the other hand, the male ones correspond to 12.76% of the total. The macro-region that represents the largest proportion of female nursing professionals is the Northeast one, with 90.08%, and the one that represents that largest concentration of male nursing professionals is the macro-region of the North, with 14.30% of the professionals. The female nurses are 88.02% and the male nurses, 11.98% [8]. Women in nursing is no novelty, taking into account that the male population has been growing over the years.

In Sao Paulo, a study revealed 79% of the nurses whose ages were between 23 and 40 years old, with an average age of 32 years, concluded their graduation in the last 10 years [9]. In ICU's of several Brazil's regions, 81% of the nurses had from 20 to 39 years old [10]. In Pelotas, the prevalence was of female nurses (90.8%), under 39 years old (69.6%) and with more than five years of nursing graduation (65.4%) [11]. According to the Brazilian Institute of Statistical Geography the population inside the age group of 25 to 49 years old represents most of the active population from metropolitan regions (48.1%) and represent 61.6% of the occupied population [12]. The nurses constitute, therefore, a young population, with experience on their work field, representing a part of the state's active population. The data are similar with the ones the study found, 72.6% of the nurses inside the age group of 23 to 40 years old, with average age of

36.03% years (\pm 10.35), on the nursing field for 9.05 years (\pm 9.54).

The average of the family income was of R\$ 8,410.11 (\pm 5,070.78), this is equivalent to 11.61 minimum wages, considering the value of R\$ 724.00, the active amount in 2014. Yet, in 2009, an accomplished study in two public hospitals and two private, located in the city of Sao Paulo, showed that the average nurse's payment was of R\$ 2,159.40 (\pm 679.20), corresponding to 4.64 minimum wages, for the current value of R\$ 465, revealing an increase on the present study [13]. The income level not only reflects the demands to life materials, such as the possibility to acquire a good nutrition and adequate housing, but is also a social welfare marker [5]. It is worthy to highlight that other factors need to be evaluated in order to analyze the family's income value, such as the number of children and dependents, number of residents.

The weekly workload found was of 47.16 hours (\pm 16.16). In contrast, in Rio Grande do Sul, the average workload was of 34.4 weekly hours [14]. In Espirito Santo, inside a university hospital, 60% of the nurses worked up to 40 hours and 18.9%, more than 60 hours [15]. In the weekly workload of nurses from Pelotas, it was observed a prevalence on the morning shifts and/or afternoon, with a weekly workload of up to 40 weekly [11]. On a similar way to Ceara, in Ribeirao Preto, the developed weekly workload varied from 21 to 78 hours, being the average of 46.2 hours, showing that the workers did overtime in the same institution that they worked professionally [16]. The nurse's weekly workload has an aggravating factor in relation to other professions that might be distributed in shifts of 12 hours, diurnal or nocturnal, or with six daily hours, going through holidays and weekends. And most of the studied population, for being women, also have extra work time at home.

A research in Portugal showed that, as the workload is bigger, more elevated are the nurse's level of stress. The stress might have repercussions

that are represented on the level of absenteeism, turnover rate, decrease on the worker's performance, reduced motivation and satisfaction with their work, increase on work accidents and mistakes [17].

In relation to the self-evaluation of the quality of life and satisfaction with health, one perceives correlation of the socioeconomic variables only with the self-evaluation of the quality of life. In university hospital, the results differed, comparing itself with the found scores of satisfaction with health, corresponding to 60.8 and there was an association with the Prevalence Ratio by gender = 1.461 (IC 95%: 1.258 – 1.696), confirming that a larger proportion of women reported that they were not satisfied when compared to men [7]. On the contrast with the current study, there was no association with the gender and the average satisfaction with health was inferior (57.00).

The women from south Korea have a larger risk of bad self-reported health than American women. The age group of 20 to 39 years old had an increased risk of bad self-reported health, both in South Korea and USA. One suggests that traditional gender roles in south Korea negatively affects women [18].

A study in Pelotas reveals a "regular/bad" positive association of self-perception of health in accordance with the advancing of age. Among the teenager's, 12.1% (IC 95%: 9.9% - 14.4%) showed a regular/bad self-perception of health, meanwhile, among adults this proportion was of 22.3% (IC 95%: 20.8% - 23.9%) and among elderly, 49.4% (IC 95%: 44.3% - 54.4%). In relation to the socioeconomic level, one confirms that those with a lower level were the ones who perceived their health on a most negative way. In the same way, those with lower education level showed the same pattern [3]. For the current study, the age group had no influence in the satisfaction with health, as well as the family income.

In Rio Grande do Sul, 62.9% of the nurses consider their health "good or very good" [11]. The va-

riables absence of chronic disease, satisfaction with work, satisfaction with life and social support associate positively themselves with the self-evaluation of health [19].

One believes that the association of the low health condition may be relate to the nurses' lack of quality of life [11]. In a study accomplished with retired nurses, 61% reported that their quality of life had improved after the retirement, 31% remained the same, and 8% had gotten worse, in a period of up to ten years after their retirement [20].

For professionals of basic education, the general health perception showed a score of 60.24 (25, 23) and general perception of quality of life, 67.26 (18, 40) [21], emphasizing bigger values than the ones found for the nurses. For workers from the primary care, most of them reported to have a good quality of life (84.6%) and 117 workers (15.4%) reported a bad quality of life [22].

In Pakistan, nurses between 20 and 30 years old, with 5 to 10 years of experience had more fatigue and worse quality of life [23]. A research accomplished about the nursing hours revealed that the variables that showed statistically significant association with the workload are: being the only responsible for the family income, work at night and show an effort-reward imbalance [24]. In Poland, only 6.5% of the nurses' total spends a stablished amount of time for intervals during their work hours, most of them execute their break time less than what is adequate [25].

The high workload of the nurses might be explained, probably, by the presence of several jobs, originating from the need of a bigger payment. Currently, there is a fight for the approval of a law that regulates the 30 weekly hours for nursing, the same for other health professions. Few Brazilian states, however, adopted such measure. It is evident that these massive work hours bring a lot of disadvantages for the nurses' quality of life, because of this, a larger political mobilization of the category is needed, it must be substantiated by scientific stu-

dies, to achieve better working gains, such as the reduction of the workload and the establishment of an adequate minimum salary.

The study's limitation consists on the outlining of a transversal cut, restricting the possibility of extracting conclusion that appeared from the presence of risks for determined outcomes, or even the relations of cause and effect. The population's individual characteristics also might influence on the results, therefore, more studies on other regions of Brazil are needed.

Conclusion

Health and quality of life showed a close relation with the work environment and their insertion context. Therefore, for nurses, due to inherent profession's character, the work environment may be considered as a risk of physical and/or mental health. Through the findings, it was possible to demonstrate the existent correlation between the increase on the workload and a worse self-evaluation of the quality of life. The sociodemographic data endorses with existent literature.

Abbreviations

CMS: Central of Material and Sterilization

ICU: Intensive Care Unit

USC: Unit of Special Care

WHOQOL-bref): The World Health Organization Quality of Life

Competing interests

We declare that there is no conflict of interests on this article's creation.

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