Revista Brasileira de Enfermagem
REBEn

Social, health, and working conditions among hospital workers

Condições sociais, de saúde e de trabalho entre trabalhadores do serviço hospitalar

Condiciones sociales, de salud y laboral de los trabajadores de servicios hospitales

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How to cite this article:
Rocha MRA, Marin MJS, Seda JM, Borgato MH, Lazarini CA. Social, health, and working conditions among hospital workers. Rev Bras Enferm. 2021;74(2):e20200321. https://doi.org/10.1590/0034-7167-2020-0321

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Submission: 04-20-2020 **Approval:** 12-07-2020

ABSTRACT

Objectives: to compare social, health and working conditions among nursing, nutrition and hospital cleaning service workers. **Methods**: a quantitative cross-sectional, descriptive and correlational study carried out in a public hospital in the countryside of São Paulo, including workers from nutrition, cleaning and nursing services. Data collection occurred during working hours. Validated questionnaires and Karasek's Demand-Control model were used to assess psychosocial dimensions and the Self-Reporting Questionnaire-20 to measure the common mental disorder. As dependent variable, the groups professionals and chi-square test were used for associations with p≥ 0.05. **Results:** 227 workers participated. Positive associations were found between professional groups and socioeconomic, health and work characteristics. **Conclusions**: social, health, and working conditions differ between the professional groups studied.
Descriptors: Occupational Health; Nursing Service, Hospital; Housekeeping; Health Workforce; Work.

RESUMO

Objetivos: comparar as condições sociais, de saúde e de trabalho entre trabalhadores das equipes de enfermagem, nutrição e serviço de limpeza hospitalar. **Métodos**: estudo quantitativo de caráter transversal, descritivo e correlacional realizado em um hospital público no interior paulista incluindo trabalhadores dos serviços de nutrição, limpeza e enfermagem. A coleta de dados ocorreu durante o horário de trabalho. Foram empregados questionários validados e o modelo Demanda-Controle, de Karasek, para avaliar as dimensões psicossociais e o *Self-Reporting Questionnaire-20* para mensurar o transtorno mental comum. Como variável dependente, utilizaram-se os grupos trabalhadores e o Teste Qui-Quadrado para associações com p≥ 0,05. **Resultados:** participaram 227 trabalhadores. Foram encontradas associações positivas entre os grupos trabalhadores e as características socioeconômicas, de saúde e de trabalho. **Conclusões**: as condições sociais, de saúde e de trabalho diferem entre os grupos trabalhadores estudados.
Descritores: Saúde do Trabalhador; Serviço Hospitalar de Enfermagem; Serviço de Limpeza; Recursos Humanos em Saúde; Trabalho.

RESUMEN

Objetivos: comparar las condiciones sociales, de salud y laborales de los trabajadores de los servicios de enfermería, nutrición y limpieza hospitalaria. **Métodos:** estudio cuantitativo, transversal, descriptivo y correlacional, realizado en un hospital público del interior de São Paulo, que incluyó a trabajadores de los servicios de nutrición, limpieza y enfermería. La recopilación de datos se realizó durante el horario laboral. Se utilizaron cuestionarios validados y el modelo *Demand-Control* de Karasek para evaluar las dimensiones psicosociales y el *Self-Reporting Questionnaire*-20 para medir el trastorno mental común. Como variable dependiente se utilizaron grupos profesionales y la prueba de chi-cuadrado para asociaciones con p ≥ 0,05. **Resultados:** participaron 227 trabajadores. Se encontraron asociaciones positivas entre grupos profesionales y características socioeconómicas, de salud y laborales. **Conclusiones:** las condiciones sociales, sanitarias y laborales difieren entre los grupos profesionales estudiados.
Descriptores: Salud Laboral; Servicio de Enfermería en Hospital; Servicio de Limpieza; Recursos Humanos en Salud; Trabajo.

INTRODUCTION

The most radical changes in the world of work occurred in the period of industrialization through the different forms of management, in an attempt to increase productivity, with a view to the concomitant strengthening of capitalism[1]. Nowadays, workers are conditioned to strenuous jobs, afraid of losing their jobs[2]. Moreover, outsourcing has brought some instabilities such as the fragility of the relationship, which contributes to the worsening of working conditions[3].

The relationship between the health-disease process and work is complex and depends on multiple factors that have to do with individual values and purposes and how he reacts and copes with the situations to which he is exposed[4]. It results, therefore, from the intersection between internal characteristics, the socially constructed ones, working conditions and coping management[4].

Health work has its specificity in the relational aspect, and depending on the way in which the organization takes place, allowing or not the participation of workers, which leads to the production of live or dead work. Dead work is performed rigidly with time control, in line with production lines, while live work is creative, allowing workers, using their potential and creativity, to concretize the objectives of their work[5].

Therefore, depending on how the work is organized, both physical and mental health may be compromised. The deficient or absent interpersonal relationship between workers and between managers and workers compromises mental health, and accidents at work or occupational diseases are related to impaired physical health[3].

Although all working groups are exposed to a greater or lesser degree to pleasure and suffering, some are more at risk of falling ill in the context of work, as is the case in the hospital area. It is a space covered with singularities, which encompasses a complex organization composed of different groups of workers and knowledge[5-7]. It is an environment that offers several risks to workers' health, being considered "unhealthy and dangerous"[7]. One of the risk factors that has contributed as one of the main causes of morbidity among hospital workers is the psychosocial[8].

In this context, nursing (NS), nutrition (NUS), hygiene and cleaning (HCS) services should be highlighted. NS does not always have enough qualitative and quantitative workers to meet the demands of care, being exposed to work overload with little effective participation in issues that include decisions and interferences in the service organization, compromising their empowerment[6-7]. Similarly, NUS is composed of workers with different levels of education, most of whom have no specific training. It is a job that requires prompt service and is related to complaints of joint pain, repetitive tasks, physical effort, noise, temperature, long standing, lack of definition of tasks, among other factors[7,9].

In this setting, HCS, which has little social recognition and low remuneration, is relevant. Outsourcing, practiced in several countries, has been increasing the precariousness of working conditions[10], and the cleaning service, since it is a medium activity, that is, one that is not inherent to the main objective of the institution, has been focus of this type of contract mainly in the hospital area.

Based on the hypothesis that health, living and working conditions differ among hospital workers, especially among HCS professionals, when compared to those from NUS and NS, due to the fact that they perform work with less social and through an outsourced contract.

OBJECTIVES

To compare social, health and working conditions among workers from nursing, nutrition and hospital cleaning services.

METHODS

Ethical aspects

The study was approved by the Research Ethics Committee and by the Research Center of the Hospital under study, in accordance with the recommendations of Resolution 446/2012 of the Brazilian National Health Council (*Conselho Nacional de Saúde*). Participants invited to participate in the study read and signed the Informed Consent Form.

Study design, place, and period

This is a quantitative, cross-sectional, descriptive and correlational study carried out in a public teaching hospital in the countryside of São Paulo, a regional reference for high complexity with 318 beds. The study took place from August 2015 to December 2016.

Population, sample, inclusion and exclusion criteria

The study population has 582 workers from NS, 78 from NUS and 94 from HCS, the first two of whom are hired by CLT (Consolidation of Labor Laws) and HCS through an outsourced company. The sample was stratified proportionally. A calculation was performed to define the sample only for NS in order to ensure proportionality in relation to the other professional groups. A prevalence of 50% was defined, with a margin of error of 5% and 95% confidence, corrected by the finite population and stratified by working groups, which resulted in 35 nurses and 61 technicians. For NUS and HCS, the entire population was used, due to the small number of professionals. In this regard, a number of 268 participants was obtained, and this sample was obtained for convenience among those who agreed to participate, in an equal number for each work shift. Included were workers from NS, NUS with an open-ended employment contract and outsourced HCS, all of whom had more than six months at the institution. Workers from these teams who were in administrative functions or who were absent at the time of data collection were excluded. From NUS, 22 refused to participate and 03 were on sick leave. Among HCS professionals, 04 were on sick leave and 12 did not accept to participate in the research. Therefore, 227 professionals were interviewed.

Study protocol

Data collection took place in the morning, afternoon and evening working hours individually and privately. The printed instrument was delivered to the participants, and the main investigator remained on

site to collect the completed questionnaire and support participants, if necessary. Filling it took an average of 30 minutes. A questionnaire was made up of open and closed questions: a) identification: age, sex, marital status, skin color and education; b) socioeconomic data: individual monthly income supported by the current minimum wage of R $ 937.00 (nine hundred and thirty-seven reais), grouped domestic activities (I do the least part/share and do the most part) and, finally, Economic Classification Brazil Criteria[11] (CCEB – *Critério de Classificação Econômica Brasil*), adopted to classify the population into socioeconomic strata in Class A, B1, B2, C1, C2 and D-E; c) lifestyle: cigarette consumption (yes/no), leisure being able to obtain more than one answer, physical activities measured through the International Physical Activity Questionnaire (IPAQ) being active (> 150 minutes/week with at least moderate activity), non-active (<150 minutes/week, considering activities performed at work as well)[12] and participation in conflicts involving family members or co-workers grouped, rarely or frequently[13]; d) health conditions: reported health problems (assessed by means of a list of diseases with more than one answer), regular use of medications (yes/no), presence of common mental disorders (CMD) assessed from the Self-Report Questionnaire-20 (SRQ-20), (translated and validated for use in Brazil by Mari and Williams[14] with twenty dichotomous responses (yes/no). The cut-off point for the identification of CMD was six or more positive responses for men and eight or more for women[15-17] and Body Mass Index (BMI) based on the reported weight and height, later classified as obese with BMI greater than or equal to 30. Self-perceived health status was collected by asking: in general, compared to people your age, how do you consider your state of health? The answers were very bad/bad/regular, good/very good, being grouped in negative and positive, respectively; e) working conditions: time, working period, overtime at the institution, having another job, occupational accidents at the institution (yes/no) and type of accident[16-17].

The psychosocial aspects of work were verified through the Job Content Questionnaire (JCQ), a version translated and validated into Portuguese by Araújo and Karasek[18], which assesses psychological demand and control over work, in addition to physical effort, social support and insecurity at work on a scale with a score of 1 to 4[1-4] (strongly disagree, disagree, agree, and strongly agree). The sum of each dimension varied from 10-41 for demand and 20-52 for control. In addition to the "demand" dimension, psychological and physical demands are added. The psychological demands consider the pressure to carry out the activities in relation to the time, level of concentration, frequency of interruption of their work and the need to wait for the completion of other workers' tasks to carry out their work. The physical demand is made up of physical effort, speed, excessive amount of tasks and physically uncomfortable position in carrying out the tasks. The "control" dimension comprises the use of skills, makes it possible to learn new things, creativity, repetitiveness, variety of tasks, individual special skills and decision-making authority, influences both with its group of workers and in the institution's management policy[16-18]. The sum of the items related to the demand and the controller was performed according to the recommended model[19]. For dichotomization of control (low/high) and demand (low/high), a cut-off point was established in the mean, which, in this study, was 31 for both, according to the Job Content Questionnaire User's Guide recommendations[19-20]. Indicators were built from the grouping of variables in the questionnaire, as proposed by Karasek, which consider occupational stress when demands at work exceed the response conditions of workers and the level of control available[16-23]. The results of the JCQ allow us to constitute four different situations that involve work: 1) high demand: it comprises high demand and low control; 2) active work: it comprises high demand and high control; 3) passive work: it comprises low demand and low control; 4) low demand: composes low demand and high control[17-21]. These four situations were grouped into a single variable.

Analysis of results, and statistics

For data organization and analysis, a Microsoft Excel spreadsheet and Statistical Package for the Social Science (SPSS) version 23.0 for Windows, respectively, were used. Descriptive analyzes of absolute (n) and relative (%) and inferential frequencies of the variables were performed. The Kolmogorov-Smirnov test was performed to verify the normal distribution of data. To test the association between categorical variables, Pearson's chi-square test or Fisher's exact test was used. Professional groups were used as the dependent variable and the other variables as independent. The level of significance adopted was 5%.

RESULTS

The studied sample had 227 participants [42% of NS and of these (63%) were nursing technicians, 53 (23.3%) from NUS and 34.4% from HCS].

There were significant differences between the professional groups in terms of age over 50 years, with NS in a smaller proportion; male gender, to a lesser extent in NUS; living with a partner, in a higher percentage in NS; brown or black skin color and low education, prevailing among HCS professionals. In relation to the socioeconomic profile, in the comparative analysis between the three professional groups, the differences in relation to individual income were significant, since nurses have a higher income, they belong to socioeconomic classes A, B1 and B2 and perform less domestic activity compared to other groups. Domestic activities are performed mostly by HCS workers who belong to socioeconomic classes C1, C2, D-E. NUS is presented with most workers earning up to two current minimum wages and more than 30% are in the social classes C1, C2, D-E, this proportion being even higher among HCS workers (Table 1).

As for life habits, there was a significant difference ($p < 0.05$) between the groups in relation to leisure activities: resting/sleeping, NS being the one who most performs them, and HCS has less participation, especially in relation to resting/sleeping, going to bars, church and traveling. Nursing had a higher percentage of non-active people in relation to physical activity, and the nutrition service had a higher percentage regarding the frequency of involvement in conflict (Table 2).

Among the reported health problems, osteoarticular problems appeared in a greater proportion among HCS workers, and irritability, in the NS workers group. Higher prevalence of diabetes and obesity was observed among NUS workers (Table 3).

Table 1- Demographic and socioeconomic variables of workers in nursing, nutrition and cleaning teams. Absolute frequencies (n), percentage (%) and p value, Bauru, São Paulo, Brazil, 2016

Variables	Nursing n=96 (%)	Nutrition n=53 (%)	Cleaning n=78 (%)	*p* value
Age				**0.001**
18 to 35 years old	41 (42.7)	16 (30.2)	23 (29.5)	
36 to 50 years old	53 (55.2)	25 (47.2)	39 (50.0)	
> 50 years old	2 (2.1)	12 (22.6)	16 (20.5)	
Sex				0.04
Man	17 (17.7)	3 (5.7)	16 (20.5)	
Woman	79 (82.3)	50 (94.3)	62 (79.5)	
Marital status				**0.001**
Living with a partner	68 (70.8)	34 (64.1)	53 (67.9)	
Skin color				**0.001**
White	79 (82.3)	40 (75.5)	35 (44.9)	
Brown and black	17 (17.7)	13 (24.5)	43 (55.1)	
Education				**0.001**
Incomplete elementary school	0 (0.0)	5 (9.4)	41 (52.6)	
Incomplete elementary/high school	0 (0.0)	11 (20.7)	22 (28.2)	
Complete high school	53 (55.2)	25 (47.2)	14 (18.0)	
Complete higher education	43 (44.8)	12 (22.7)	1 (1-2)	
Individual income				**0.001**
Up to 2 minimum wages	25 (26.0)	42 (79.3)	69 (88.5)	
3 to 5 minimum wages	56 (58.3)	10 (18.9)	9 (11.5)	
> 6 minimum wages	15 (15.6)	1 (1.9)	0 (0.0)	
Household activities				0.01
Shares/smallest part	46 (47.9)	15 (28.3)	20 (25.6)	
Does the most part	50 (52.1)	38 (71.7)	58 (74.4)	
Socioeconomic classification				0.02
A and B1	30 (31.2)	16 (30.2)	13 (16.7)	
B2	38 (39.6)	17 (32.1)	21 (26.9)	
C1, C2	21 (21.9)	14 (26.4)	36 (46.1)	
D-E	7 (7.3)	6 (11.3)	8 (10.3)	

Table 2 - Lifestyles of nursing, nutrition and cleaning service workers. Absolute frequencies (n), percentage (%) and p value, Bauru, São Paulo, Brazil, 2016

Variables	Nursing n=96 (%)	Nutrition n=53 (%)	Cleaning n=78 (%)	*p* value
Smoking	7 (7.3)	10 (18.9)	11 (14.1)	0.10
Leisure (yes)				
Resting/sleeping	56 (58.3)	29 (54.7)	29 (37.2)	0.02
Clubs	7 (7.2)	1 (2.0)	1 (1.3)	0.10
Bars	20 (20.8)	7 (13.2)	3 (3.8)	0.01
Travelling	16 (16.6)	6 (11.3)	1 (1.3)	**0.001**
Physical activity				**0.001**
Active	70 (72.9)	48 (90.6)	74 (94.9)	
Inactive	26 (27.1)	5 (9.4)	4 (5.1)	
Involving with conflicts				**0.001**
Often	62 (64.6)	37 (69.8)	32 (41.0)	
Rarely	34 (35.4)	16 (30.2)	46 (59.0)	

Table 3 - Health conditions of nursing, nutrition and cleaning service workers. Absolute frequencies (n), percentage (%) and p value, Bauru, São Paulo, Brazil, 2016

Variables	Nursing n=96 (%)	Nutrition n=53 (%)	Cleaning n=78 (%)	*p* value
Referred health problems				
Vision deficit	31 (32.3)	21 (39.6)	24 (31.0)	0.54
Muscle pain	45 (46.9)	33 (62.3)	40 (51.3)	0.20
High pressure	13 (13.5)	11 (26.8)	17 (21.8)	0.31
Osteoarticular problems	17 (17.7)	18 (34.0)	31 (39.7)	0.01
Difficulty sleeping	26 (27.1)	9 (17.0)	15 (19.2)	0.28
Hearing problems	4 (4.1)	3 (5.7)	5 (6.4)	0.75

To be continued

When checking work characteristics and comparing it with the three groups, the results showed significant differences, with the following items being more frequent in the nursing team: length of service at the institution; the number of overtime hours greater than 5h/week; have another job; having night work; having suffered piercing accidents previously; decision-making authority; social support at work. HCS workers were the ones who most mentioned low decision-making authority, high conditions of job insecurity, as well as passive and demanding work characteristics (Table 4).

DISCUSSION

The present study sought to compare the living and health conditions between three different groups of workers who work in the hospital, in order to highlight the similarities and differences between the conditions that can lead to their illness.

Other studies among health workers were also possible to observe the predominance of the female sex, the age group of 36 to 50 years old, who lives with a partner and completed high school[15-17,21], not corroborating only in relation to the self-reported skin color, which, in this case, white color prevailed. The results for HCS workers are in line with another study in which the majority have brown or black skin and with incomplete primary education[17,24].

The high percentage of women in these professions occurs because socially these attributions are recognized as being eminently female because they are linked to the care with life and health. In this regard, professions are less valued in terms of wages when compared to the male domain, socially understood as professions linked to competitiveness and achievement[8]. Also, the lowest individual income between groups is from HCS, as it is an occupation that does not require specific training or high education, even if they carry out activities that involve risks to people's health and life, as they essentially deal with hospital infection control. This work is viewed socially as simple, of lower status and little recognized, often going unnoticed, which generates negative feelings and interference in the health-disease process[24].

Since HCS is performed by a third-party company, workers have different employment contracts than other groups. Outsourcing, which came with the proposal to make companies more competitive, contributed to job insecurity, since most have reduced wages and have reduced labor benefits, when compared to workers hired

Table 3 (concluded)

Variables	Nursing n=96 (%)	Nutrition n=53 (%)	Cleaning n=78 (%)	*p* value
Swelling legs	18 (18.8)	19 (35.8)	21 (27.0)	0.07
Allergies	16 (16.6)	15 (28.3)	12 (15.3)	0.14
Irritability	28 (29.2)	9 (17.0)	9 (11.5)	0.02
Anxiety	34 (35.4)	26 (49.0)	25 (32.0)	0.12
Heart problems	4 (4.2)	6 (11.3)	5 (6.4)	0.24
Diabetes	1 (1.4)	5 (9.4)	5 (6.4)	0.04
Backache	35 (36.5)	20 (37.7)	35 (44.9)	0.50
Regular use of medication				0.80
Yes	56 (58.3)	33 (62.3)	44 (56.4)	
Common mental disorder				0.27
Yes	17 (17.7)	15 (28.3)	20 (25.6)	
Body Mass Index				0.02
Obese	23 (24)	23 (43.4)	18 (23.1)	
Self-perceived health				0.12
Negative (very bad/bad/regular)	17 (17.7)	17 (32.1)	16 (20.5)	
Positive (good/very good)	79 (82.3)	36 (67.9)	62 (79.5)	

Table 4 - Work characteristics of nursing, nutrition and cleaning service workers. Absolute frequencies (n), percentage (%) and p value, Bauru, São Paulo, Brazil, 2016

Variables	Nursing n=96 (%)	Nutrition n=53 (%)	Cleaning n=78 (%)	*p* value
Job tenure				**0.001**
Up to 5 years	34 (35.4)	36 (68.0)	64 (82.1)	
6 to 10 years	24 (25.0)	8 (15.1)	9 (11.5)	
More than 10 years	38 (39.6)	9 (16.9)	5 (6.4)	
Working time				**0.001**
Daytime	49 (51.0)	39 (73.6)	59 (75.6)	
Night/mixed	47 (49.0)	14 (26.4)	19 (24.4)	
Overtime at the hospital				**0.001**
Yes up to 5h/week	20 (20.8)	17 (32.1)	0 (0.0)	
No	56 (58.3)	29 (54.7)	78 (100.0)	
Yes > from 5h/week	20 (20.8)	7 (13.2)	0 (0.0)	
Other job				**0.001**
Yes	39 (40.6)	7 (13.2)	18 (23.1)	
No	57 (59.4)	46 (56.8)	60 (76.9)	
Occupational accident				0.79
Yes	35 (36.5)	17 (32.1)	25 (32.1)	
No	61 (63.5)	36 (67.9)	53 (68.0)	
Type of accident				**0.001**
Drilling	24 (25.0)	0 (0.0)	5 (6.4)	
Cutting	2 (2.1)	2 (3.8)	4 (5.1)	
Falling	3 (3.1)	8 (15.1)	11 (14.1)	
Burning	1 (1.0)	6 (11.3)	0 (0.0)	
Others	5 (4.2)	1 (1.9)	5 (6.4)	
Job satisfaction				0.14
Very satisfied/satisfied	62 (64.6)	38 (71.7)	61 (78.2)	
Little/dissatisfied	34 (35.4)	15 (28.3)	17 (21.8)	
Physical effort				0.06
Low	58 (60.4)	27 (50.9)	33 (42.3)	
High	38 (39.6)	26 (49.1)	45 (57.7)	
Decision-making authority				0.01
Low	33 (34.4)	19 (35.8)	44 (56.4)	
High	63 (65.6)	34 (64.2)	34 (43.6)	
Psychological demand				0.11
High (> 31)	44 (45.8)	24 (45.3)	47 (60.3)	
Low	52 (54.2)	29 (54.7)	31 (39.7)	
Work control				0.01
High (> 31)	67 (69.8)	29 (54.7)	19 (24.4)	
Low	29 (30.2)	24 (45.3)	59 (75.6)	
Social support				0.33
Low	44 (45.8)	31 (58.5)	40 (51.2)	
High	52 (54.2)	22 (41.5)	38 (48.7)	
Job insecurity				0.03
Low	47 (49.0)	19 (35.8)	23 (29.5)	
High	49 (51.0)	34 (64.2)	55 (70.5)	

To be continued

for an indefinite and statutory period[16-17,25]. Currently, outsourcing has grown a lot, representing more than 20% of the entire labor market, wage reduction of around 27% and an increase in hours worked weekly, totaling an average of three hours[26]. This situation can be verified when verifying that the workers of the outsourced HCS were the ones that presented smaller percentages regarding the possibility of leisure. The preference for resting/sleeping over other leisure activities revealed by the majority, in the three professional groups, may indicate physical or mental exhaustion due to work in the hospital environment that requires living with death, pain, and illness[8].

It is necessary to analyze health workers separately because both health behavior and lifestyle can be different between groups according to occupations. As for health workers, even considered as an example to be followed, they do not always correspond to this expectation, since they also suffer the same social and environmental influences as other people[27]. Weighting physical activities, the three professional groups were considered to be active, and HCS had the highest percentage. The literature points out that physical activity, for at least 30 minutes, of moderate intensity performed throughout life brings benefits to physical and mental health, preventing chronic non-communicable diseases such as hypertension and diabetes[28].

Conflict involvement was greater among NS and NUS professionals when compared to HCS professionals. Although conflict is inherent in human relationships, it can lead to both positive and negative consequences, and it is necessary to consider the situation, as there may be significant losses. When the conflict occurs in the work context, it has been found that many of them result from the distribution of power and prestige that is typical of hospital organizations[13]. It is worth mentioning that the teams of the nutrition and nursing services have greater diversification in their functions, in addition to different levels of training, comprising functions performed by both technical and higher education professionals. It can be seen from this fact that there is a greater dispute for power, differentiating both the levels of autonomy and the levels of control over work.

Osteoarticular problems were found predominantly in HCS professionals, which is in line with the finding that musculoskeletal diseases result from the workload and the type of service performed, a fact also found in the results of a study conducted in the interior of the state of Rio Grande do Sul with workers from the cleaning service of a hospital public[15]. Services that

Table 4 (concluded)

Variables	Nursing n=96 (%)	Nutrition n=53 (%)	Cleaning n=78 (%)	*p* value
Demand-control				**0.001**
Passive work	10 (10.4)	13 (24.5)	23 (29.5)	
Active work	28 (29.2)	15 (28.3)	11 (14.1)	
High demand	18 (18.8)	11 (20.8)	36 (46.2)	
Low demand	40 (41.7)	14 (26.4)	8 (10.2)	

require a lot of physical effort, loading and unloading of materials, people or food are related to the appearance of musculoskeletal problems. HCS encompasses activities with intense work rhythm, physical effort related to the disposal of garbage, lifting of furniture, among others, which, according to literature, has contributed to the development of occupational diseases[15-17,24].

Greater physical effort at work, combined with domestic activities among HCS professionals, corroborates a study that found greater burden among these professionals who performed domestic services more often during the week[17,29]. Socially, domestic service is still the responsibility of women who are responsible for the care of the family. This role is not recognized as work because it has no pay and many researches do not add this type of work when women are included in the samples for analysis of the burden.

Among NUS professionals, there was a higher percentage of diabetes and obesity. Obesity has been growing year by year among countries as an epidemic, and is recognized worldwide as a public health problem. The World Health Organization ensures that obesity and overweight are responsible for metabolic and cardiovascular complications that contribute to the reduction of life expectancy, with type II diabetes being one of the main complications[30]. The presence of obesity among kitchen workers was verified by Boclin and Blank, when comparing BMI and work in the kitchen and laundry team at eight public hospitals in southern Brazil. According to the authors, the fact that workers eat little by little during work may have contributed to obesity and overweight of employees[31].

Regarding the health of workers, it was identified that 22.9% had scores above the cut-off line for CMD. Brazilian studies have found percentages between 20 and 56% of CMD with a predominance of female workers, attributing this to hormonal causes and domestic overload[24,30,32]. It is inferred that these causes may also have contributed to the results related to the higher percentage of irritability reported by the nursing team.

Anxiety and depression are important disorders, and people with low education, low socioeconomic status and black skin are more vulnerable[24,27].

Mental disorder, whether due to anxiety, depression or some other, compromises the quality of work, since it favors the increase in the rate of absenteeism or presenteeism at work, being the main cause of early retirements in many countries and a great burden on the economy[29,32]. Work situations that lead to stress, such as high demands, reduced number of workers, intimidation, harassment, among others, cause damage to workers' health, generating dissatisfaction with work[21,33-34].

Job satisfaction is related to the degree to which workers' needs are met in the face of work organization. Poor working conditions, such as insufficient number of workers and intense workload, lead to dissatisfaction and abandonment of the profession[35]. In the present study, although without statistically significant differences between groups of workers, almost a third of them are dissatisfied or very dissatisfied. Possibly, this data stems from the fact that all groups are exposed to health risks and that participants are mostly women, since they are more dissatisfied with work than men[35].

The work was recognized among the groups differently in terms of their characteristics. In NS and NUS, workers mostly classify work as active and of low demand, which characterizes it as "live work", as it allows workers to be creative and have autonomy[5-6], while the work developed in HCS was classified as passive and highly demanding. This type of work contributes strongly to the worker's mental illness, since it does not allow the construction of autonomy and decision making in the exercise of their activities, being recognized as dead work[5,21,33]. Control over work, which allows workers to use skill and decision-making authority, was greater among NS and lesser among HCS.

As for insecurity, there was a significant difference between the groups of workers in which the HCS team had a higher percentage and a lower percentage in relation to social support. Relationships with colleagues and managers in the work environment are extremely important for coping with everyday problems, directly interfering with well-being, mental health and job satisfaction. Good quality interpersonal relationships are related to clear and objective information about work, social support that collaborate positively in job satisfaction[35].

Social support has been important because it interferes with work relationships, reducing stress and helping to cope with adversity at work. However, the lack of companionship, individualism, the lack of recognition of the potential and individual creativity at work as well as the lack of autonomy and freedom are drivers of negative feelings that compromise relationships at work[21,33,35]. In this context, there is evidence that precarious work, focused on productivity, fragmented and stressful is associated with suicide[36]. Underreporting and the absence of public policies aimed at preventing and identifying factors that may lead to suicide at work put workers' health at risk[36].

Study limitations

One limitation of the study is the fact that there are different levels of training among the groups of workers mentioned, which certainly requires more detailed and in-depth studies. Furthermore, the cross-sectional design makes it difficult to verify changes in health and working conditions over time. The fact that it was carried out in a single hospital and did not consider workers already on leave or on leave due to illness may generate potential biases.

Contributions to health

The findings, however, highlighted the context of groups of workers who demand specific care, guiding the planning of health promotion actions that should be placed as a priority by the institution, especially by the sectors responsible for workers' health.

CONCLUSIONS

In the present study, we sought to compare the living, working and health conditions of three groups of workers who work in the hospital, who, to a greater or lesser extent, remain in patients' surroundings, exercising essential functions for maintaining life. When starting with sociodemographic characteristics, HCS workers are those with the lowest education and black or brown skin color.

Regarding lifestyle, practices are unfavorable to good conditions in all groups, but with significant differences between them. HCS, in comparison with the other groups of workers, has as main leisure watching television. As for physical activity, the nursing team was less active, being the one that remains sitting longer.

Concerning health problems, the nutrition team showed a greater proportion of obesity and diabetes. In the nursing team, the complaint of irritability stands out. HCS professionals manifested osteoarticular problems, which shows an association with activities performed at work, indicating that health promotion interventions in the context of work should be directed according to the professional category.

In the present study, although health risk factors were confirmed in all groups studied, there was a marked precariousness when it comes to HCS professionals in terms of devaluation of the activity and outsourcing of services. This condition is even more worrying when analyzing the recent changes in labor legislation, those that expand the possibility of outsourcing and temporary work.

Thus, even though the worker is recognized as a fundamental part of the institution to achieve good quality and success in the work process, workers' health has not received sufficient investment by the companies. The public policies created in this area have not yet brought satisfactory results, since the charges do not yet include worker health surveillance. In this regard, the number of sick professionals in need of temporary or permanent leave is growing and is not contemplated with actions that could positively contribute to their physical or mental health, increased pleasure, satisfaction and self-realization.

FUNDING

We are grateful to the Center for the Improvement of Higher Education Personnel (CAPES - *Centro de Aperfeiçoamento de Pessoal de Nível Superior*) for the scholarship granted that enabled exclusive dedication and the sandwich doctorate in Spain.

REFERENCES

1. Neves DR, Nascimento RP, Felix Jr MS, Silva FA, Andrade ROB. Sentido e significado do trabalho: uma análise dos artigos publicados em periódicos associados à Scientific Periodicals Electronic Library. Cad EBAPE.BR. 2018;16(2), 318-330. https://doi.org/10.1590/1679-395159388
2. Coelho GG, Arruda ACC, Carneiro ALF, Lima ES, Barros JHO. The social awakening of outsourced workers at a public university: experience report. Psi Unisc. 2020;4(1):83-92. https://doi.org/10.17058/psiunisc.v4i1.14270
3. Antunes R, Praun L. A sociedade dos adoecimentos no trabalho. Serv Soc Soc 2015;(123):407-27. https://doi.org/10.1590/0101-6628.030
4. Dejours C. A loucura do trabalho: estudo da psicopatologia do trabalho. 5a ed. Paraguay AI, Ferreira LL, tradutores. São Paulo: Cortez, Oboré; 1992.
5. Faria HX, Faria MD. An analysis perspective on the work process in the area of health: the production of care and the production of subjects. Saúde Soc. 2010;19(2):429-39. https://doi.org/10.1590/S0104-12902010000200018
6. Evangelista VC, Domingos TD, Siqueira FP, Braga EM. Multidisciplinary team of intensive therapy: humanization and fragmentation of the work process. Rev Bras Enferm. 2016;69(6):1037-44. https://doi.org/10.1590/0034-7167-2016-0221
7. Elias MA, Navarro VL. A relação entre o trabalho, a saúde e as condições de vida: negatividade e positividade no trabalho dos trabalhadores de enfermagem de um hospital escola. Rev Latino-Am Enfermagem. 2006;14(4):517-25. https://doi.org/10.1590/S0104-11692006000400008
8. Chagas D. Riscos psicossociais no trabalho: causas e consequências. Int J Dev Educ Psychol INFAD Rev Psicol. 2015;1(2):439-46. https://doi.org/10.17060/ijodaep.2015.n1.v2.24
9. Silva KF, Drumond NB, Quintão DF. Avaliação do perfil nutricional e condições de trabalho de colaboradores de unidades de alimentação e nutrição de Eugenópolis (MG). Rev Cient FAMINAS [Internet]. 2015[cited 2018 Mar 11];11(2):33-48. Available from: http://periodicos.faminas.edu.br/index.php/RCFaminas/article/view/109
10. Mastrodi J, Corsi TC. Trabalho terceirizado: sobre a precarização das condições de trabalho a partir da Lei de Terceirização e da Reforma Trabalhista. Rev Direito Econ Socioambiental. 2018;9(3):243-70. https://doi.org/10.7213/rev.dir.econ.soc.v9i3.18318
11. Associação Brasileira de Empresas de Pesquisa. Critério de classificação econômica Brasil [Internet]. São Paulo: ABEP; 2015 [cited 2018 Mar 11]. Available from: http://www.abep.org/criterio-brasil
12. Vespasiano BS, Dias R, Correa DA. A utilização do questionário internacional de atividade física (Ipaq) como ferramenta diagnóstica do nível de aptidão física: uma revisão no Brasil. Saude Rev. 2012;12(32):49-54. https://doi.org/10.15600/2238-1244/sr.v12n32p49-54
13. Feijó MR, Goulart Jr E, Nascimento JM, Nascimento NB. Conflito trabalho-família: um estudo sobre a temática no âmbito brasileiro. Pensando Fam [Internet]. 2017 [cited 2020 Apr 20];21(1),105-19. Available from: http://pepsic.bvsalud.org/pdf/penf/v21n1/v21n1a09.pdf
14. Mari JJ, Williams P. A comparison of the validity of two psychiatric screening questionnaires (GHQ-12 and SRQ-20) in Brazil, using relative operating characteristic (ROC) analysis. Psychol Med. 1985;15:651-9. https://doi.org/10.1017/s0033291700031500
15. Marconato CS, Magnago ACS, Magnago TSBS, Dalmolin GL, Andolhe R, Tavares JP. Prevalence and factors associated with minor psychiatric disorders in hospital housekeeping workers. Rev Esc Enferm USP. 2017;51:2-8. https://doi.org/10.1590/s1980-220x2016026303239

16. Rocha MRA, Marins MJS, Seda JM. Saúde do Trabalhador no contexto hospitalar [Tese][Internet]. 2018[cited 2020 Apr 22]. Available from: https://repositorio.unesp.br/handle/11449/153848

17. Rocha MRA. Condições de vida, trabalho e saúde mental: um estudo com trabalhadores brasileiros e espanhóis que atuam em serviço de limpeza hospitalar. Ciênc Saúde Coletiva. 2020;25(10):3821-32. https://doi.org/10.1590/1413-812320202510.35912018

18. Araújo TM, Karasek R. Validity and reliability of the job content questionnaire in formal and informal jobs in Brazil. Scand J Work Env Health Supp [Internet]. 2008[cited 2020 Apr 22];6:52-59. Available from: https://www.sjweh.fi/download.php?abstract_id=1251&file_nro=1

19. Araujo TM. Trabalhos e distúrbios psíquicos em mulheres trabalhadoras de enfermagem[Tese]. Instituto de Saúde Pública: Universidade Federal da Bahia; Salvador, 1999.

20. Karasek R. Job content questionnaire and user´s guide [Internet]. 1985[cited 2015 Jan 20]. Available from: https://www.jcqcenter.com/questionnaires-jcq-jcq2/

21. Shimabuku RH, Mendonça H, Fidelis A. Presenteísmo: contribuições do Modelo Demanda-Controle para a compreensão do fenômeno. Cad Psicol Soc Trab. 2017;20(1):65-78. https://doi.org/10.11606/issn.1981-0490.v20i1p65-78

22. Karasek RA. Low social control and physiological deregulation—the stress–disequilibrium theory, towards a new demand–control model. Scand J Work Env Health Suppl [Internet]. 2008[cited 2020 Apr 22];6:117–35. Available from: http://www.sjweh.fi/show_abstract.php?abstract_id=1259

23. Oliveira AMN, Araujo TM. Situações de desequilíbrio entre esforço-recompensa e transtornos mentais em trabalhadores da atenção básica de saúde. Trab Educ Saude. 2018;16(1):243-62. https://doi.org/10.1590/1981-7746-sol00100

24. Gemma SFB, Fuentes-Rojas M, Soares MJB. Agentes de limpeza terceirizados: entre o ressentimento e o reconhecimento. Rev Bras Saude Ocup. 2017;42:e4. https://doi.org/10.1590/2317-6369000006016

25. Silva LAT, Goulart Jr E, Camargo ML. Terceirização é prejudicial à saúde: estudo bibliográfico nacional sobre precarização do trabalho. 2019;1(21):76-7. https://doi.org/10.29148/labor.v1i21.40801

26. Campos FHP. El fenómeno de la tercerización del trabajo y su repercusión en la salud del trabajador de salud. In Crescendo. 2017;8(1):140-55. https://doi.org/10.21895/incres.2017.v8n1.14

27. Pasquier RJM. Los médicos e las enfermeiras no siempre tienen estilos de vida saludables [Internet]. 2017 [cited 2019 Jan 10]. Available from: http://rigobertomarcano.com/los-medicos-y-las-enfermeras-no-siempre-tienen-estilos-de-vida-saludables-por-rigotordoc/.

28. Gonçalves ECA, Rinaldi W, Nunes HEG, Capdeboscq MC, Silva DAS. Baixos níveis de atividade física em servidores públicos do sul do Brasil: associação com fatores sociodemográficos, hipercolesterolemia e diabetes. Rev Andal Med Deporte. 2017;10(2):54-9. https://doi.org/10.1016/j.ramd.2014.10.073

29. Pinho OS, Araujo TM. Associação entre sobrecarga doméstica e transtornos mentais comuns em mulheres. Rev Bras Epidemiol. 2012;15(3):560-72. https://doi.org/10.1590/S1415-790X2012000300010

30. Organización Mundial de la Salud. 57ª Asamblea mundial de la salud. Estrategia global sobre dieta, actividad física y salud. Ginebra: OMS; 2004.

31. Boclin KLS, Blank N. Excesso de peso: característica dos trabalhadores de cozinhas coletivas? Rev Bras Saude Ocup. 2006;31(113):41-7. https://doi.org/10.1590/S0303-76572006000100005

32. Moraes RSM, Silva DAS, Oliveira WF, Peres MA. Social inequalities in the prevalence of common mental disorders in adults: a population-based study in Southern Brazil. Rev Bras Epidemiol. 2017;20(1):43-56. https://doi.org/10.1590/1980-5497201700010004

33. Azevedo BDS, Nery AA, Cardoso JP. Estresse ocupacional e insatisfação com a qualidade de vida no trabalho da enfermagem. Texto Contexto Enferm. 2017;26(1):e3940015. https://doi.org/10.1590/0104-07072017003940015

34. Silva GS. Recognizing stress at work: a critical appraisal. Gerais Rev Interinst Psicol. 2019;12(1):51-61. https://doi.org/10.36298/gerais2019120105

35. Assunção AA, Pimenta AM. Satisfação no trabalho do pessoal de enfermagem na rede pública de saúde em uma capital brasileira. Ciênc Saúde Coletiva. 2019;25(1):20. https://doi.org/10.1590/1413-81232020251.28492019

36. Cortez PA, Veiga HMS, Gomide APA, Souza, MVR. Suicídio no trabalho: um estudo de revisão da literatura brasileira em psicologia. Rev Psicol Org Trab. 2019;19(1):523-31. https://doi.org/10.17652/rpot/2019.1.14480