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Prevalence of work-related physical and psychosocial risks factors: a cross-sectional study of social service employees in Brazil

Prevalência de fatores de riscos físicos e psicossociais relacionados ao trabalho: um estudo transversal com trabalhadores da assistência social no Brasil

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Prevalence of work-related physical and psychosocial risks factors: a cross-sectional study of social service employees in Brazil

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Abstract

Introduction: In Brazil, social service employees are exposed to poor work conditions, mental strain, and there is a lack of workforce, which contributes for the accumulation of tasks and to work overload. **Objectives:** To describe the prevalence of socioeconomic and occupational characteristics, working conditions and self-reported health of social service employees; and verify the relationship between working conditions and the workers self-reported health. **Methods:** The cross-sectional study evaluated sociodemographic and occupational characteristics, lifestyle and health information of social service employees; and used the Working Environment Assessment Protocol to assessment her working conditions. The data was analyzed descriptively and by the chi-square test. **Results:** A total of 41 employees participated in this study, which corresponds to 60.3% of the total number of social service employees in the city. The majority was female (65.9%), aged 40.72 (SD=14.83), more than 8 years of schooling (82.9%), and occupying higher level functions (psychologists and social workers). Regarding health characteristics, 56.1% of participants practiced physical activities; 70.7% evaluated their own health as good or very good; and 43.9% related musculoskeletal pain. Not have a dining room; and temperature, ventilation, equipment, material resources and furniture were the most reported working conditions as inadequate. There was also an association between episodes of aggression and insecurity with self-perception of health. **Conclusions:** The results suggest that there could be a relationship between precarious working conditions and health. Specifically, this study indicated an association between poor working conditions and negative self-perception of health, insecurity and episodes of violence at work.

Keywords: occupational health; workplace; diagnostic self evaluation; workplace violence; social work; work.

Resumo

Introdução: No Brasil, os servidores do serviço social estão expostos a más condições de trabalho, desgaste mental e falta de mão de obra, o que contribui para o acúmulo de tarefas e sobrecarga de trabalho. **Objetivos:** Descrever a prevalência de características socioeconômicas e ocupacionais, condições de trabalho e saúde autorreferida de servidores sociais; e verificar a relação entre as condições de trabalho e a saúde autorreferida pelos trabalhadores. **Métodos:** O estudo transversal avaliou características sociodemográficas e ocupacionais, e usou o Protocolo de Avaliação do Ambiente de Trabalho para avaliar suas condições de trabalho. Os dados foram analisados descritivamente e pelo teste qui-quadrado. **Resultados:** Participaram deste estudo 41 servidores, o que corresponde a 60,3% do total de servidores do serviço social do município. A maioria era do sexo feminino (65,9%), com idade de 40,72 anos (DP=14,83), com mais de 8 anos de estudo (82,9%) e ocupando cargos de nível superior (psicólogos e assistentes sociais). Em relação às características de saúde, 56,1% dos participantes praticavam atividades físicas; 70,7% avaliaram a própria saúde como boa ou muito boa; e 43,9% relataram dor musculoesquelética. Não ter refeitório; temperatura, ventilação, equipamentos, recursos materiais e móveis foram as condições de trabalho mais relatadas como inadequadas. Também houve associação entre episódios de agressão e insegurança com a autopercepção de saúde. **Conclusões:** Os resultados sugerem que há relação entre condições precárias de trabalho e saúde. Este estudo indicou associação entre más condições de trabalho e autopercepção negativa de saúde, insegurança e episódios de violência no trabalho.

Palavras-chave: saúde do trabalhador; local de trabalho; autoavaliação diagnóstica; violência no trabalho; serviço social; trabalho.

INTRODUCTION

The work and its organization have been through transformations in recent years, with changes in the ways people work, in the profile of diseases of the worker, and on the prevalence of indicators such as percentages of illness, disabilities, and early retirement[1]. These changes in the world of work and the recent worldwide events, like Covid-19 pandemic, have exacerbated the existing psychosocial risks and brought out new risks to be considered as well for protecting worker's health[2]. Work demands involve physical and ergonomic risk factors, such as excessive posture, lack of breaks and staying in the same position for a long time[3]. Working conditions also include psychosocial factors, such as control over tasks, autonomy and decision-making power, psychological demands, social support, organizational climate and violence at work[4]. Physical and psychosocial demands are related to a favorable work environment, or are adverse, and interfere with workers' health. This favors the opening up of national and international debate on need of prioritizing physical, ergonomics and psychosocial risks at work at the level of policies, strategies and actions[2].

Background

Specific groups of workers with high physical and psychosocial demands at work are exposed to greater risk and vulnerability, with high rates of morbimortality, absenteeism from work activities, and disability retirement[3-5]. In Brazil, among health workers, work performed in poor conditions, with pressure to make a decision, and lack of support and overload is related to physical and emotional exhaustion[6]. In addition to psychosocial factors, working conditions among this group of professionals are related to lack of infrastructure (physical structure, adequate furniture, equipment and healthy work environment) makes it difficult to perform the work and can negatively impacts in the health of workers[7]. Situations of violence (physical and verbal) in the work environment may provoke feelings of anger, disappointment, anxiety, anguish, impaired work functioning and the intent to move to another workplace or desire to develop other functions or another profession[8].

This is also the reality of workers in the Unified Social Assistance System (SUAS) in Brazil. The SUAS, through the Social Assistance Reference Centers (CRAS), aims to reduce

social inequalities, helping vulnerable populations[9]. Each CRAS has the ability to care for 500 families in situations of vulnerability, including a multidisciplinary team made up of, at least, a coordinator, a social worker, a psychologist, and high-school level technicians[10].

Among the activities developed by the CRAS are: guiding and improving community, social, and family conviviality; mapping people in situations of risk; inserting and referring individuals and families to social assistance and public policy services[10]. In the CRAS, it is possible to identify situations of poverty; cases of threats and abandonment; domestic violence cases; drug abuse; criminality; low socio-educational levels and loss of rights[10]. Workers of CRAS are also exposed to poor working conditions, mental strain, and under-staffing. This context contributes for to a high demand of work and difficult for to complete job tasks[10,11].

Purpose

Sick leaves represent a financial expenditure, associated to the loss of productivity, hiring and training of new professionals, expenses with benefits or welfare, and extra costs with health services[5]. As an indicator of health at work, the monitoring of working conditions can generate indicators of exposure to physical and psychosocial risks in the various work sectors. These indicators make it possible to identify prevalences and the most common health problems, predict disability states and direct more specific investments in workers' social service. Although studies that assess working conditions and health have been widely published in the literature, specific research aimed at social service employees is limited. Identifying the work characteristics associated with the worker's illness may be the key to interventions aimed at reducing expenses with illnesses in social service employees, in addition to promoting safer, healthier and more functional working conditions.

In this context, this study purpose to: (i) describe the socioeconomic and occupational characteristics, working conditions, and the self-reported health of social service employees at the Social Assistance Reference Centers (CRAS) in Brazil, and (ii) examine the relationship between working conditions and the employees self-reported health.

METHODS

Observational and cross-sectional study of social service employees carried out in a large city, which serves the socially vulnerable population of 27 cities in the Southeast region of Brazil. The city has eight CRAS units with a reception, one or more rooms for evaluations, a room for activities with groups and/or families, an administrative room, dining room, and bathrooms[10].

A total of 65 workers were active as professionals in the units of the CRAS and the inclusion criteria from: workers of both genders, 18 years old or older, active for at least a year in any position or function in the CRAS. Retired and on leave workers were excluded. Data collection was performed from November 2019 through January 2020 during visits of researches to all eight CRAS. The participants received information about study aims and methods and were invited to participate voluntarily. The employees signed an informed consent form and answered the research at the workplace, that is, in them CRAS units, according to their availability.

The total of the 65 workers, 41 (63.07%) agreed to participate in the study by convenience sampling. This sampling technique was determined due to the availability of active social service employees at work at the time of the survey. To calculate the power of this sample, a significance level $\alpha = 0.05$; large conventional effect ($\omega = 0.35$), the study sample $n = 40$ and a degree of freedom $df = 1$, was considered. Therefore, the power sample, for a $n = 40$, was power = 0,9125, as calculated by the software G*Power® 3.1.9.7.

The data collected involved three questionnaires: (1) a Sociodemographic, Occupational, Life habit Questionnaire; (2) Health Perception Questionnaire; and (3) a Work Environment Evaluation Protocol. The first was adapted from Roncoleta et al.[12], and identified sociodemographic information (sex, age, educational level, marital status, income), life habits (practice of physical activities, smoking, amount of sleep), and occupational data (position, time in the position, shifts, work journey).

The perception of health was evaluated through a group of questions adapted from Barbosa et al.[13], which included musculoskeletal pain (duration, intensity, and localization); perception of tiredness; current health state self-evaluation classified as positive or negative; involvement and satisfaction with daily life activities (DLAs); and a list of physical and mental health experienced in the last 30 days.

The Work Environment Evaluation Protocol was developed by Barbosa et al.[13] and this study used items from this protocol that were specific to the CRAS context like: work environment conditions (ventilation, temperature, lighting, furniture, equipment, noises, dining room/canteen, room to rest, locker for the personal effects, and material resources); physical demands (posture that leads to pain or discomfort, standing for long periods of time, sitting for a long time, walking too much, carrying or lifting weight, working without breaks, rotating work shifts, night shifts) and psychosocial aspects (little to no time to eat, the employer does not offer food, safety and aggression episodes). The protocol was made up of 25 questions with a 5-point Likert scale (1 = never; 2 = rarely; 3 = infrequent; 4 = frequent and 5 = very frequent). For this study, the answer options were converted to two categories: adequate (when responses were frequent or very frequent) and inadequate (when never, rarely or infrequently).

All data was analyzed descriptively. Initially the data were treated in relation to missing data and outliers. Less than 5% of the data were missing and the multiple imputation method was used to account for these data[14]. The reliability of each item of Health Perception Questionnaire, and Work Environment Evaluation Protocol was investigated with the Kappa Coefficient with quadratic weighting (kw). The interpretation of the Kappa agreement level followed the criteria proposed by Landis & Koch[15] as follows: almost perfect, 0.81 to 1.00; strong: 0.61 to 0.80; moderate: 0.41 to 0.60; regular: 0.21 to 0.40; discrete: 0 to 0.20; and poor: < 0. The association between work conditions and the perception of health were tested through the Chi-Square test. Statistical tests were carried out using the IBM® SPSS software (Statistical Package for the Social Sciences), version 20.0, and for all analysis a significance level of α=0.05 was considered.

The research was approved by the Research Ethics Committee of the Federal University of Trângulo Mineiro (CAAE 52647216.7.0000.5154, approval nº. 1,774,870) and all participants signed the Free and Informed Consent Form. As ethical guarantees, participant's information is kept confidential. For security of the information offered and confidentiality, all instrument protocols were archived under the responsibility of the research group responsible for this study. Participants received no compensation and participation in the research was completely voluntary. The STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) guidelines for reporting observational data was followed in this study[16]. To reduce potential information bias, the evaluators were previously

trained in the application of the instruments and the participants were blinded to the objectives related to the analysis of the study data.

RESULTS

Characteristics of the participants

Most participants were women (65.9%), with eight or more years of formal education (82.9%); almost half of them were married (41.5%), and most had children (51.2%). Their age average was 40.72 y/o (SD=14.83) and their mean monthly income was R$ 2,071.03 (SD=1,152.42). Among participants, 58.5% worked in only one shift, with a mean daily work journey of 6.9 hours (SD=1.09), and 22% was psychologists or social workers each (Table 1).

Health Characteristics

The Kappa coefficient with the quadratic weighting of the reliability assessment for Health Perception Questionnaire indicated perfect reliability (kw = 0.859). 56.1% of participants practiced physical activities three times a week on average, for at least 60 minutes. Only 7.3% of workers were smokers, and the average of hours of sleep per night was 7.1 hours (SD = 1.09). 70.7% of workers self-evaluated their health as positive; 43.9% feel musculoskeletal pain with a mean intensity of 6.1 (SD = 1.99); being 87.5% chronic pain (more than three months). The most common places of pain were: back/column and the legs/feet. Nearly half the workers feel nervous, tense and preoccupied (48.8%); 39.0% tire easily; 29.3% have difficulties in making decisions; 26.8% report to have lost satisfaction in their DLAs; 22% feel headaches and 7.3% though/think about ending their own lives (Table 1).

Table 1. Sociodemographic, occupational, and health characteristics of the CRAS workers; n = 41

Variables	Frequency	Percentage (%)
Functions		
Social worker	5	12.2%
Administrative assistant	3	7.3%
Social worker	9	22.0%
Canteen worker	1	2.4%
Manager	5	12.2%
Arts instructor	1	2.4%
Psychologist	9	22.0%
Receptionist	1	2.4%
Janitors	5	12.2%
CRAS		
I	6	14.6%
II	3	7.3%
III	10	24.4%
IV	2	4.9%
V	9	22.0%
VI	1	2.4%
VII	6	14.6%
VIII	4	9.8%
Sex		
Female	27	65.9%
Male	14	34.1%
Years of study		
Up to 8 years of study	7	17.1%
More than 8 years of study	34	82.9%
Categorized marital status		
W/o partner	24	58.5%
Has a partner	17	41.5%
Children		
Does not have children	20	48.8%
Has children	21	51.2%
Shifts		
1	24	58.5%
2	14	34.1%
Physical Activity:		
Does not practice	18	43.9%
Practices	23	56.1%
Smoking		
No	38	92.7%
Yes	3	7.3%
Health perception:		
Positive (very good, good)	29	70.7%
Negative (regular, bad, very bad)	12	29.3%
Musculoskeletal pain:		
No	20	48.8%
Yes	18	43.9%
Sleeps bad:		
No	27	65.9%
Yes	14	34.1%
Health problem:		
Poor digestion	8	19.5%

No appetite	2	4.9%
Trembling hands	8	19.5%
Tires easily	16	39.0%
Headache	9	22.0%
Thoughts about ending one's own life	3	7.3%
Difficulties in making decisions	12	29.3%
Feeling nervous, tense, preoccupied	20	48.8%
Loss of satisfaction in DLAs	11	26.8%

Work conditions characteristics

The reliability assessment for Work Environment Evaluation Protocol ranged from regular to strong, with kw = 0.859 for the items of environment conditions of the work; kw = 0.473 for physical demands; and kw = 0.748 for psychosocial aspects.

The most CRAS units (97.6%) do not have a dining room; for 78.0% the temperature is inadequate; 75.6% have work and ventilation equipment in poor conditions. The lack of material resources (65.9%), the inadequate furniture (63.4%), and the absence of lockers in which to store personal belongings (58.5%) were inadequate characteristics of the work environment (Table 2).

Regarding the physical demands of the work, 65.9% of the workers stay seated for long periods of time; 56.1% assume postures that cause pain or discomfort; 51.2% work with no pauses and almost half of the workers have rotating work shifts (46.3%). Among the workers, 34.1% walk or seat for long periods of time, no breaks or changes in posture; 29.3% carry or lift weights during their work journey, and 28.8% work in night shifts (Table 2).

Regarding psychosocial aspects, most workers (85.4%) are not offered food by their employers and 12% have little or no time to eat. 68.3% of participants feel that their personal safety is threatened in their workplace and more than half feel that the security of their belongings is under threat (53.7%). 26.8% of workers having witnessed episodes of aggression or threats from the population or from relatives/companions of the users. Episodes of aggression or threats between colleagues and/or their superiors (9.8%), and from the superiors or colleagues towards users (7.3%) were also reported (Table 2).

Table 2. Work environment aspects of CRAS; n =41

Variables	Frequency	Percentage (%)
Poor conditions of:		
Ventilation	31	76.6%
Temperature	32	78.0%
Lighting	20	48.8%
Furniture	26	63.4%
Equipment	31	75.6%
Noise	9	22.0%
No lunch room/canteen	2	4.9%
No room to rest	40	97.6%
No locker for the personal effects of the worker	24	58.5%
Material resources	27	65.9%
Demands of:		
Posture that leads to pain or discomfort	23	56.1%
Standing for long periods of time	14	34.1%
Sitting for long periods of time	27	65.9%
Walking too much	14	34.1%
Carrying or lifting weight	12	29.3%
Working without break	21	51.2%
Rotating shifts	19	46.3%
Night shifts	11	28.8%
Psychosocial aspects:		
Little to no time to eat	5	12.2%
The employer does not offer food	35	85.4%
Personal safety under threat	28	68.3%
Personal effects safety under threat	22	53.7%
Episodes of aggression or threats made by the user	11	26.8%
Episodes of aggression or threats made by the companion or by a relative of the user	8	19.5%
Episode of aggression or theats from colleagues or superiors to the users	3	7.3%
Episode of aggression or threats between colleagues and/or superiors	4	9.8%

Associations between the conditions of the work and the perception of health

Poor conditions of ventilation were significantly associated to sleeping badly (p = 0.008); getting tired easily (p = 0.003); feelings of nervousness, tension, and preoccupation (p = 0.006); and loss of satisfaction with DLAs (p = 0.027). The precarious conditions of temperature and the lack of material resources were also significantly associated to the loss of satisfaction with DLAs (p = 0.041 and p = 0.042, respectively). Poor lighting conditions (p = 0.001) and lack of equipment (p = 0.032) were associated to the symptom "tiring easily". The lack of material resources had a significant association to the difficulty of making decisions (p = 0.025) (Table 3).

Table 3. Health aspects of CRAS workers associated to poor work environment conditions; n = 41

	Poor Work Environment Conditions						
	Ventilation (p-value)	Temperature (p-value)	Lighting (p-value)	Furniture (p-value)	Equipment (p-value)	Noise (p-value)	Resources (p-value)
Musculoskeletal pain	0.282	0.152	0.373	0.465	0.432	0.218	0.314
Sleeping badly	**0.008****	0.333	0.136	0.395	0.535	0.572	0.428
Poor digestion	0.083	0.573	0.623	0.627	0.642	0.644	0.257
No appetite	0.567	0.605	0.232	0.396	0.567	0.904	0.428
Trembling hands	0.642	0.427	0.623	0.627	0.358	0.644	0.435
Tires easily	**0.003****	**0.006****	**0.001****	0.057	**0.032****	0.146	0.091
Headache	0.058	0.080	0.202	0.572	0.283	0.395	0.333
Thoughts about ending one's own life	0.422	0.535	0.481	0.701	0.578	0.857	0.735
Difficulties in making decisions	0.125	0.470	0.129	0.536	0.378	0.505	**0.025****
Feeling nervous, tense, preoccupied	**0.006****	0.076	0.321	0.299	0.158	0.232	0.062
Loss of satisfaction with DLAs*	**0.027****	**0.041****	0.212	0.132	0.167	0.470	**0.042****

* Daily life activities; ** P-value significance < 0.05.

Considering the physical demands, standing for long periods of time was significantly connected to musculoskeletal pains (p = 0.026). Walking a lot was related to tiring easily (p = 0.023). Working with no breaks had statistical associations to having problems in making decisions (p = 0.034). Sitting for long periods of time and working in a night shift were demands significantly associated to the loss in satisfaction with DLAs (p = 0.004 and p =

0.017, respectively). Finally, rotating shifts were significantly associated to headaches (p = 0.045). The other demands of the work did not have significant associations to the perception of health (Table 4).

Table 4. Health aspects of CRAS workers associated to physical demands due to the organization of work; n = 41

	Physical Demands due to the Organization of Work							
	Posture that leads to pain or discomfort (p-value)	Standing (p-value)	Sitting (p-value)	Walking too much (p-value)	Carrying or lifting weight (p-value)	Working without break (p-value)	Rotating shifts (p-value)	Night shift (p-value)
Musculoskeletal pain	0.360	**0,026****	0.327	0.054	0.102	0.373	0.324	0.568
Sleeping badly	0.594	0.117	0.428	0.572	0.338	0.136	0.539	0.568
Poor digestion	0.213	0.257	0.435	0.257	0.569	0.319	0.592	0.637
No appetite	0.691	0.428	0.572	0.572	0.495	0.256	0.731	0.470
Trembling hands	0.213	0.153	0.153	**0.023****	0.241	0.377	0.290	0.637
Tires easily	0.163	0.487	0.091	0.260	0.059	0.139	0.475	0.287
Headache	0.370	0.640	0.333	0.640	0.470	0.466	**0.045****	0.225
Thoughts about ending one's own life	0.407	0.735	0.735	0.735	0.343	0.107	0.538	0.381
Difficulties in making decisions	0.300	0.155	0.123	0.620	0.226	**0.034****	0.063	0.087
Feeling nervous, tense, preoccupied	0.210	0.136	0.191	0.329	0.177	0.138	0.618	0.538

Among the psychosocial aspects, feeling one's own safety threatened was statistically significant regarding the symptoms of tiring easily (p = 0.048) and feeling nervous, tense, and preoccupied (p = 0.016). The threat to the safety of one's belongings was associated to musculoskeletal pain (p = 0.006). Experiencing aggression episodes from the users was statistically associated to headaches (p = 0.047) and to difficulties in decision making (p = 0.047). Being the victim of aggression or threats by user relatives/companions was associated to musculoskeletal pain (p = 0.037); tiring easily (p = 0.032); feeling nervous, preoccupied and tense (p = 0.022); and loosing satisfaction with DLAs (p = 0.025). Witnessing episodes of aggression or threats between colleagues and superiors was significantly associated to the symptoms sleeping badly (p = 0.011) and headaches (p = 0.030) (Table 5).

Table 5. Health aspects of CRAS workers associated to psychosocial aspects caused by the organization of work; n = 41

	Psychosocial Aspects Caused by the Organization of Work						
	Little time to eat (p-value)	No food (p-value)	No lunch room or canteen (p-value)	No room to rest (p-value)	No locker for personal effects (p-value)	Threats to safety (p-value)	Threats to personal effects (p-value)
Musculoskeletal pain	0.552	0.656	0.218	0.526	0.053	0.102	**0.006****
Sleeping badly	0.209	0.582	0.572	0.659	0.415	0.225	0.446
Poor digestion	0.317	0.257	0.644	0.805	0.399	0.499	0.472
No appetite	0.232	0.237	0.096	0.951	0.154	0.461	0.296
Trembling hands	0.683	0.743	0.644	0.805	0.399	0.205	0.528
Tires easily	0.291	0.323	0.634	0.610	0.632	**0.048****	0.068
Headache	0.299	0.689	0.395	0.780	0.601	0.093	0.135
Thoughts about ending one's own life	0.670	0.662	0.857	0.927	0.205	0.693	0.577
Difficulties in making decisions	0.461	0.149	0.495	0.707	0.261	0.107	0.073
Feeling nervous, tense, preoccupied	0.476	0.204	0.232	0.512	0.475	**0.016****	0.055
Loss of satisfaction with DLAs*	0.408	0.180	0.470	0.732	0.360	0.066	0.135

	Psychosocial Aspects Caused by the Organization of Work			
	Aggression or threats made by the user (p-value)	Aggression or threats made by companions (p-value)	Aggression or threats from colleagues to users (p-value)	Aggression or threats between colleagues/superiors (p-value)
Musculoskeletal pain	0.051	**0.037****	0.479	0.281
Sleeping bad	0.596	0.588	0.276	**0.011****
Poor digestion	0.619	0.513	0.096	0.172
No appetite	0.521	0.636	0.146	0.192
Trembling hands	0.381	0.513	0.498	0.607
Tires easily	0.065	**0.032****	0.057	0.167
Headache	**0.047****	0.059	0.545	**0.030****
Thoughts about ending one's own life	0.630	0.498	0.786	0.723
Difficulties in making decisions	**0.047****	0.452	0.668	0.346
Feeling nervous, tense, preoccupied	0.078	**0.022****	0.115	0.053
Loss of satisfaction with DLAs*	0.122	**0.025****	0.178	0.300

* Daily life activities; ** P-value significance < 0.05.

DISCUSSION

The results show a prevalence of social workers and psychologists, women, and young adults, among the CRAS workers. Psychologists and social assistants are the most common professionals responsible for executing the SUAS and be a part of the CRAS minimum team[9]. This female presence is related to these professions being often occupied by women[17]. This characteristic corroborates national findings that indicate a higher participation of women as workers in the Brazilian public services[17].

The mean age of CRAS workers is lower than that of public workers in Brazil, and the educational level of the sample is higher than that of the Brazilian population[18]. This rate is a

result of the PNAS, which demands that the CRAS minimal team should have a technical professional and a higher education professional. Despite their high formal education, the income of the workers was lower than the mean real income of the worker population in Brazil[18]. The employment bond of the public service includes outsourced workers, interns, temporary workers, and those approved in public selection processes[19]. The difference in the types of employment is a reality in CRAS and may explain the income of the workers who were evaluated in this study.

The health state self-evaluation is an index of the perception individuals have of their own health[20] and is rationalized of biological terms, such as the presence of diagnosed diseases. However, it is culturally influenced by beliefs and behaviors, such as the presence of risk factors, disease prevention, and well-being[21]. Most workers evaluated referred to their health as being good, showing better results than the national average. National data show that 66.1% of Brazilians self-evaluated their health as good or very good, while 33.9% of the population consider their own health to be bad[20]. According to Alcântara et al.[21], workers under excessive physical strain have a high tendency to evaluate their health as bad or very bad, which corroborates our results. Thus, work environment impact in health perceptions, exposing the workers to higher risks of diseases, absenteeism, and work leaves.

The main health complaints related by the workers were feeling nervous, preoccupied, or tense; getting tired easily; having difficulties in decision making; and lose satisfaction with DLAs. Precarious workspaces may affect the health and wellbeing of workers, especially when the equipment they have to perform their tasks is inadequate; resources are insufficient; and the space available is not sufficient, or not safe[21]. The results show that workers have poor or inadequate conditions in their work environment, and an association between these conditions and workers' health. The main physical demands related by the workers were standing or sitting for long periods of time, working with no pauses, and rotating work shifts. The symptoms related to these demands include complaints such as musculoskeletal pain and easily getting tired, and mental health such as difficulties making decisions and loss in DLA satisfaction. These demands from work reflect health problems which were investigated in different worker populations[22,23].

Studies with workers from different fields corroborate these results. Dantas et al.[7] showed that working in a standing position, taking on uncomfortable positions, intense work rhythm, and rotating work shifts are related to complaints about tired body and mind, stress,

fatigue, lack of concentration and attention, and a diminished capacity to make judgements. Work demands such as standing for long periods of time, carrying heavy weights, being responsible for maneuvering equipment, and constant movement, are related to musculoskeletal complaints[22]. A work rhythm too intense or excessive workloads, insufficient time to perform tasks, and the interruption of tasks are also related to symptoms such as mental tiredness, sleepiness, forgetfulness, nervousness, insomnia, and psychic suffering[23].

Characteristics of the poor work environment, such as ventilation, temperature, lighting, and the lack of material resources, were significantly associated to mental health of the workers evaluated. This relation between psychological and emotional symptoms and precarious conditions of the work environment is confirmed by other studies[6,22,23]. To Maciel et al.[6], poor work conditions, such as equipment with no maintenance, broken chairs and tables, poor lighting conditions, and the lack of equipment, lead to more anguish among the workers. Other studies show that low material resources, noises, and an inadequate physical environment are related to health problems such as: anxiety, tension, nervousness, irritability, depression, sleep disorders, anguish, and mental disorders[23].

Specific interventions in health and safety at work, aiming to minimize physical and mental harm, are a potential strategy to promote the health of these workers. These interventions must be directed, especially to the work environment, minimizing precarious conditions of temperature, ventilation, lack of equipment, resources, materials and furniture. It is expected that these proposals will mainly avoid physical harm, mental exhaustion and sick leaves among social service employees.

Most CRAS in Brazil are located in rented properties, which may explain the inadequate physical space[24]. The properties rented are unsafe, improvised, or unhealthy, generating poor work environments. National data show that the most CRAS are not in accordance to safety and accessibility guidelines, or have environmental barriers that impact in the work and in the use of social services[10,21]. Castro[24] suggests that new CRAS with adequate environments should be built. An adequate physical space provides better working conditions and a more efficient service to the population. The analysis of CRAS environments highlights the importance of the context in which social assistance services take place and worker's health indicators, enhancing inter-sectoral actions. Long-term administration and governance policies aimed at the adequacy and accessibility of public buildings can generate benefits in different areas, extending to health and social assistance. In this way, public

management strategies should focus on urban improvement, with the creation of favorable, healthy, sustainable environments with fewer barriers, allowing greater mobility, autonomy, security and access to quality public services.

Insecurity and episodes of aggression were present at CRAS. The characteristics of CRAS properties can contribute to a negative perception of job security. Suffering aggression or threats, or witnessing episodes of aggression and threats among colleagues and superiors, were significantly associated with different health problems. In Brazil, 3.1% of the population aged 18 or over has been a victim of violence or aggression by strangers, and 18.4% of these suffered this aggression in the workplace[25]. The proportion of aggression or violence by known people was 2.5%, of which 11.9% occurred at work[25]. Recent investigations show an association between episodes of violence and health problems among workers[8,11]. Mental aggression, lack of communication, lack of collective defenses and mental stress are associated with chronic headaches, tiredness, exhaustion and irritability[8,11].

Thus, episodes of violence in the workplace negatively affect the health and safety of workers and represent a current problem for occupational health. Aytaç & Dursun[26] show the relation between aggression in the workplace and symptoms of depression and stress, with a negative impact on work satisfaction. Health professionals and employees of social services are exposed more often to violent situations, especially when working directly with people with a history of drug or alcohol abuse; when working alone; when the architecture of the workplace is in bad conditions; when there are no tools to communicate an emergency; and when they work in neighborhoods with high criminality rates[27]. This is the reality found in the context of working in a CRAS in Brazil.

The violence prevention programs in social services should include training for violent behavior identification and de-escalation techniques, structural and administrative measures for violence control (such as alarms, surveillance, staff increase), and measures to reduce occupational stress, which can include wellness courses, and organizational improvements[8]. Organizational support and workplace violence-related training courses are also cited as strategies for workers to deal with workplace violence[28]. Team-based trainings may improve the interpersonal skills of the victims of workplace violence and perceived support from colleagues, both of which can prevent workplace violence events and the repetition of such events[28].

This research has some limitations that should be addressed. A limitation of our study was that we could not analyze the health complaints in relation to gender and occupational role. Our sample consisted essentially of women, psychologists and social workers. As a result, the generalization of these data are consistent with the reality of social service teams and with the dimensioning of the number of professionals working in CRAS in Brazil. Despite the small sample, almost all workers in CRAS were evaluated, and the profile of the sample is similar to that of the CRAS workers which has been described in other studies[17,29].

Its cross-sectional nature does not allow for identifying the cause of the health complaints. This methodological design was useful for us to analyze our hypothesis of association between these symptoms and work conditions. The health characteristics evaluated in this study are dynamic, complex, and influenced by different factors throughout life. Thus, longitudinal studies will help to continuously discover the impact of working environment conditions on the health of this group of workers. Such information may have implications for reshaping the practice of occupational health services. For future studies, we also suggest an analysis of changes in the health status of workers in longitudinal journeys, especially after the Covid-19 pandemic. The current post-pandemic scenario increased the number of the population at risk and vulnerable, which further increased the demand of CRAS workers. However, this new reality did not translate into investments and actions aimed at improving the working conditions of this occupational group.

Currently, the researchers use worker self-perception regarding different aspects of the work, associating their health self-evaluations to their exposition to occupational risk factors and to work conditions. Therefore, this study becomes relevant and advances in the use of measurements that incorporate health self-perception as a subjective and individual measure, related to the health of the worker.

CONCLUSIONS

This study found a mostly female sample among CRAS workers, with high educational levels and healthy life habits. There were high rates of negative health perceptions and workers with chronic pain. Poor work environment aspects, high physical demands, and psychosocial factors regarding violence and feeling unsafe were frequent. The results

confirmed the relation between poor work conditions, lack of safety, episodes of violence, and health problems.

Few studies have employees of social services as their target population, which reiterates the importance of analyzing their health problems due to the occupational hazards that afflict this group. Therefore, it is important to develop plans to diminish risk factors in the work at the CRAS, such as interventions that offer a more comfortable environment through ergonomic analysis that minimize physical demands. Especially, further and deeper investigations are necessary regarding the presence of violence in the work at CRAS, as well as the planning and development of preventive actions targeted at this psychosocial aspect.

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