

Health problems among outpatient nursing personnel with a high physiological workload

Problemas de saúde de trabalhadores de enfermagem em ambulatórios pela exposição à cargas fisiológicas

Problemas de salud, de trabajadores de enfermería en ambulatorios, causados por exposición a cargas fisiológicas

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ABSTRACT

Objective: To identify health problems among outpatient nursing personnel with high physiological workload and high Body Mass Index (BMI), and their impact on the nursing personnel quality of life. **Methods:** A descriptive quantitative-qualitative approach was used. The sample consisted of 22 nursing personnel from an outpatient clinic from a university teaching hospital of São Paulo city. Data was collected through interview using a specific instrument developed for the study. **Results:** Nursing personnel physiological workload (42.11%) and high BMI (26.32%) were associated with musculoskeletal disorders characterized by pain in different parts of the body, leg varices and microvessels, and foot callosities. **Conclusion:** Although working at the outpatient clinic is perceived as “a gift,” the reported health problems negatively affected the quality of life and the job performance of the nursing personnel.

Keywords: Occupational risks; Worker health; Quality of life.

RESUMO

Objetivo: Identificar os problemas de saúde gerados na exposição a cargas fisiológicas, o Índice de Massa Corporal (IMC) dos trabalhadores de enfermagem e o impacto destes na qualidade de vida dos trabalhadores de enfermagem. **Métodos:** Estudo descritivo de abordagem quantitativa realizado em um ambulatório de um hospital universitário da cidade de São Paulo. A população foi constituída pelos 19 trabalhadores de enfermagem da unidade. O instrumento de coleta de dados foi o formulário, aplicado pela técnica de entrevista. **Resultados:** A alta frequência de exposição dos trabalhadores a cargas fisiológicas (42,1%), associada ao alto IMC (26,3% obesos) é geradora de distúrbios osteomusculares relacionados à prática do trabalho, cujo principal sintoma é a dor em diferentes regiões. Também as varizes e os microvasos nas pernas e calosidades nos pés são relatados. **Conclusão:** Apesar do ambulatório ser considerado “prêmio”, os problemas de saúde relatados interferem negativamente na qualidade de vida e trabalho.

Descritores: Riscos ocupacionais; Saúde do trabalhador; Qualidade de vida.

RESUMEN

Objetivo: Identificar los problemas de salud, generados por la exposición a cargas fisiológicas, el Índice de Masa Corporal (IMC), de los trabajadores de enfermería y el impacto de este en la calidad de vida de esos trabajadores. **Métodos:** Estudio descriptivo de abordaje cuantitativo y cualitativo realizado en el ambulatorio de un hospital universitario de la ciudad de Sao Paulo. La población fue constituída por los 22 trabajadores de enfermería de la unidad. El instrumento de recolección de datos fue el formulario, aplicado por la técnica que realizó la entrevista. **Resultados:** La alta frecuencia de exposición de los trabajadores a cargas fisiológicas (42,11%), asociada al alto IMC (26,32% obesos) genera disturbios osteomusculares relacionados a la práctica del trabajo, cuyo principal síntoma es el dolor en diferentes regiones. También, fueron relatados varices y pequeños vasos sanguíneos en las piernas y callosidades en los pies. **Conclusión:** A pesar de que el ambulatorio es considerado un “premio”, los problemas de salud relatados interfieren negativamente en la calidad de vida y trabajo.

Descriptores: Riesgos ocupacionales; Salud del trabajador; Calidad de vida.

* Work carried out in an outpatient clinic of a University Hospital in the city of São Paulo

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INTRODUCTION

Several studies have been carried out with the objective of investigating the relationship between nursing work and workers' health, demonstrating that the frequency of exposure to different workloads, leads them to different burnout processes^(1,2). The most commonly reported work problems are infections due to exposure to body fluids and Work-Related Musculoskeletal Disorders WMSDs^(3,4).

WMSDs are considered an epidemic in the country, due to the increased frequency among workers in the different fields of activity and also in health, with approximately 60% of workers on a sick leave in the year 2005⁽⁵⁾. Among nursing workers, the frequency and severity are impressive, as observed in the different work realities in the country⁽¹⁾. These disorders are mainly due to the great exposure of workers to physiologic workloads, that is, in the use of their body or overload to perform every day activities of their work⁽²⁾.

Outpatient clinics are considered as a "reward" to workers, especially among older ones. It is considered as a "lighter" work because patients are not in a critical state and are not in-patients. However, studies have showed that outpatient clinic workers are not free from the same health problems faced by workers in other wards, which affects their current and future quality of life.

Quality of life of nursing workers is a consequence of the contradictions which are part of their work and social life, as well as health and protective aspects, and the destructive aspects experienced by this group, according to their historical and specific insertion in the production of health⁽⁶⁾.

To understand the relationship between work and nursing workers' quality of life, we should first understand the work-health relationship. To that end, theoretical conception of the Health-Disease Process, in the social historical trend is referred in the following excerpt:

"The health-disease process is the synthesis of the set of determinations working in a concrete society, leading to risks or potentialities in the different social groups that are characteristic and are shown as profiles or standards of diseases or health. Certainly, the quality of life to which each socioeconomic group is exposed is different and, therefore, their exposure to risk process that favor the onset of diseases and specific forms of death is equally different, as well as the access to process that favor or improve health and life."⁽⁷⁾

When the categories that allow for comprehension of the relationship between work-health are studied, authors⁽⁸⁾ refer that "there are elements which interact dynamically with each other and with workers' bodies, creating processes to adjust that are translated into burnout". These elements are called workload, and they

mediate work and workers' psychobiological burnout. Additionally, workloads are classified into biological, physical, chemical, mechanical, physiological, and psychological

Especially in nursing, exposure to physiological workloads occur in the interaction of workers with their work object which is centered in the patient/client; with heavy materials and equipment, and the ways work is organized, making workers walk long distances, remain standing for long, working in the night shift, and adjusting to shift changes.

An author⁽¹⁾ studied nursing work in five Brazilian university hospitals and verified that exposures to different types of workloads, especially the physiological one, lead to a burnout process that use nursing work strength and lead to the onset of occupational diseases, work accidents, and several signs and symptoms that are not specific and not easy to be correlated with work. These burnout processes, most of the times, lead to WMSDs and to other diseases.

In another study⁽⁹⁾ also carried out with nursing workers in admission units of another University Hospital had 93% of the participants referring some type of musculoskeletal symptom in the last 12 months.

In units that are not for admitted patients, it is observed that WMSDs among nursing workers are also significant. However, there are few studies with workers in these units to confirm this assumption. On the other hand, there are not many records on nursing workers' health. For that reason, and because of the quality of information provided by workers compared to official records⁽¹⁰⁾, data collection is usually carried out with workers in the workplace.

The present study was carried out because of this issue and the lack of knowledge on the subject; we believe the outcomes can increase visibility to health problems of these workers, contributing to adopt measures to monitor their health. The purpose of the present study was to contribute to building knowledge in nursing workers' health, calling the attention of those working in outpatients' clinics, regarding the physiological workload they are submitted to and how they see its impact in their quality of life.

OBJECTIVES

To identify health problems created by physiological workloads, the Body Mass Index – BMI of nursing workers and their impact on the quality of life of these workers.

METHODS

Descriptive study of a specific reality characterized as

case study. The setting was the outpatient clinic of a university hospital in the city of São Paulo. The population formed by 23 nursing workers. Exclusion criterion was being absent absence (due to a leave) in the period of data collection. Thus, four workers were excluded, one because of vacation and three because of health problems, with a total of 19 participants.

We used interviews as a technique for data collection. The instrument had data on the workers' identification, anthropometric measures and the following guiding questions: What is your height and weight? To what physiological workload do you feel exposed to? In what activities do you see yourself exposed to these physiological workloads? In your view, what are the health problems due to the exposure to these types of load? How these health problems interfere in your quality of life and your work?

The instrument was pre-tested in workers from other sectors, to check for the comprehension of questions created. Data were collected after approval by the Research Ethics Committee of the Hospital where the study was carried out, according to Protocol # 126/00 and after participants gave their written consent. Research participants were previously explained of the study objectives, and were ensured confidentiality and anonymity. Interviews were recorded with workers' permission and later transcribed to favor reliable data analysis.

Quantitative data (identification, functional data, and anthropometric data) were systematized into tables and demonstrative charts, according to relative and absolute frequencies. Qualitative data from the interviews were grouped according to convergences and divergences of the discourse content and issues that emerged from individuals' speech at the time of interview. According to Minayo⁽¹¹⁾, the qualitative approach works with values, beliefs, habits, attitudes, representations, opinions and it is adjusted to deepen the complexity of facts and processes that are particular to or specific to individuals and groups.

RESULTS

Of the 23 workers from the unit, 19 were interviewed, corresponding to 82.60% of the total.

Characterization of the study population

The study population was formed only by women.

Most of them were over 40 (89.47%).

In the studied population, 21.05% had another paid activity, with a weekly shift ranging from 41 to 76 hours, and 78.95% did not have another paid work, and thus their weekly shift was 36 hours,

Body Mass Index -BMI (weight/height²) calculation showed that 21.05% of the workers present a pre-obesity

profile, and 26.32% are obese. According to the World Health Organization-WHO⁽¹²⁾ classification, a BMI from 25.00 to 29.99 kg/m² indicates pre-obesity, and a BMI equal to or higher than 30 kg/m² indicates obesity. Data obtained in the studied population indicated that BMI increased with age, as seen in table 1.

Table 1 – Relationship between BMI and age group among nursing working in the Outpatient clinics, São Paulo, 2007.

Age group	Mean BMI (kg/m ²)
35 to 44 years old	24.13
45 or over	27.47

Professional categories were the following: nine (47.37%) were nursing assistants, two (10.53%) were nursing technicians and eight (42.11%) were nurses.

As for time working in the profession, 10.53% of the population studied had been working for less than 15 years, and 89.47% for 15 years or over.

Workers' perception on physiological workload and the work-health relationship

Data analysis showed that as for the perception of exposure to physiological workload, 8 (42.11%) participants were exposed to dealing with too much weight in the activities they developed in the unit; 19 (100.00%) stated they were exposed to working standing for too long, and 15 (79.95%) said they worked in inadequate and/or uncomfortable positions.

Assessing the category of nursing assistants, it was demonstrated that 4 (44.44%) presented one to two signs, symptoms and/or diseases; two nursing assistants (22.22%) presented three to four signs, symptoms and/or diseases; and three nursing assistants (33.33%) presented five or more signs, symptoms and/or diseases.

In the category nursing technicians, one worker (50% of the category) referred that she presented three to four symptoms and/or diseases and one worker (50% of the category) mentioned she presented five or more signs, symptoms and/or diseases.

In the category of nurses, one (12.50%) referred she had no signs, symptoms and/or diseases; three (37.50%) said they presented one or two signs, symptoms and/or diseases; two (25.00%) referred they presented three to four signs, symptoms and/or diseases, and two (25.00%) referred they presented five or more signs, symptoms and/or diseases.

Burnout processes referred by nursing workers in Outpatient Clinics

Burnout processes referred by workers regarding exposure to physiological workload were, overall, the

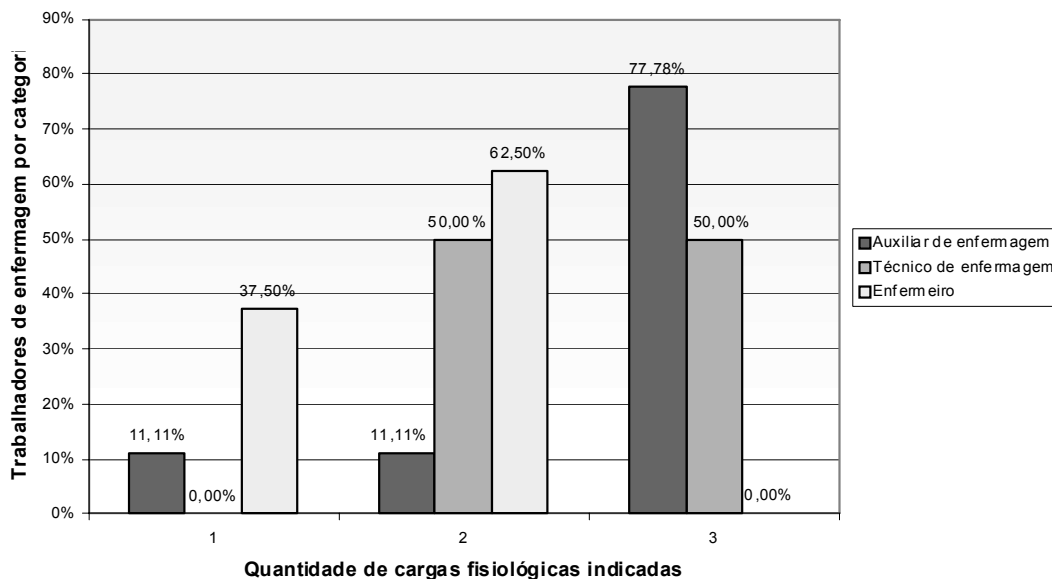


Chart 1 – Nursing outpatient workers, according to categories and amount of physiological workloads they consider themselves exposed to. São Paulo, 2007.

Table 2 – Distribution of Outpatient nursing workers, according to professional category and work perception. São Paulo, 2007.

Perception on work	Nursing assistants		Nursing technicians		Nurses	
	n	%	n	%	n	%
Strengthens the work force	2	22.22	0	0	2	25
Leads to work force burnout	7	77.77	1	50	4	50
Strengthens and leads to workforce burnout	0	0	1	50	2	25
Total	9	100	2	100	8	100

following “pain”: pain in the legs, onset of varicose veins, micro vessels; foot pain and callus; pain in hands, arms, shoulders and joints; back pain, herniated disks, knee problems, arm and shoulder tendonitis, and fatigue.

DISCUSSION

Culturally, the nursing team is formed, most times, by women. Considering the current socioeconomic context, we may assume that many of these workers are bound to experience conflicts because of the professional and personal demands since they work two or three shifts⁽¹³⁾. This greater exposure favors burnout of the workforce since these workers have to work at their jobs, at their home, and have to take care of their children.

Considering most workers were over 40, there is an increase in the age group of nursing workers, which used to be between 30-35 years old in the 80's and 90's. This data follows the ageing of the country's population and shows that these older workers come to this unit after

being exposed to several different workloads in other units.

In the studied population, 21.05% of the workers referred a weekly workload ranging from 41 to 76 hours. This data demonstrates that the effective weekly workload is another trigger of burnout processes because it overuses the workforce.

High BMI is added to the exposure to physiological workloads, favoring the onset of musculoskeletal problems. This data indicates that increase in BMI also increases vulnerability to WMSDs because when musculoskeletal body structures are overloaded, it may lead to knees and back pains. This data shows the importance of monitoring workers' health problems, to maintain BMI between 18.5 and 24.99⁽¹³⁾. The increase in this index is not only a particular problem since it has been observed that nursing workers present this index increased which is, therefore, associated with work. Thus, institutions should promote activities that foster keeping BMI normal, through exercise and nutritional orientation

programs, favoring a better health condition. This data also enables to consider that physical conditions of workers, together with physiological workloads worsen health problems resulting from them.

Table 1 shows a significant percentage of nurses and nursing technicians working in the unit studied, when compared to the job market where nursing assistants are still predominantly⁽¹⁴⁾.

Most professionals from the study worked in the profession for more than 15 years showing, on one hand, low turnover, and, on the other hand, the health problems resulting from the work, and the exposure to several different workloads with greater burnout. Studies on the Capacity for Work Index - ICT of nursing workers have demonstrated the decrease in this capacity and ageing in the work^(15,16). Time working in the profession and old age suggest that these workers have been exposed to physiological workloads for many years when compared to younger workers working for fewer years.

Chart 1 shows workers' exposure to one, two, or three workloads. This data is similar to those found in studies developed with workers in inpatient wards and other areas such as operating room, material center and emergency medical service⁽¹⁰⁾.

These data show that among technicians and nursing assistants, the presence of signs, symptoms and/or diseases is more frequent, which may be related to the type of activities more directly connected with care, different from nurses who manage care and the unit⁽¹⁰⁾.

Thus, the setting of these characteristics and the physiological workload contribute and expose these workers to different burnout processes.

Table 2 shows the perception of nursing workers regarding the correlation between work activities and quality of life and workforce burnout. All professional

categories feel the work they perform as consuming. However, nursing assistants and nurses, in a smaller proportion, also consider that work activities strengthen the workforce, resulting in an improvement in quality of life because of the opportunities they offer to personal and professional growth.

Quality of life of nursing workers is a consequence of the contradictions that are present between the health and protective aspects that this group enjoys and the destructive aspects they suffer according to their historical and specific insertion in health production⁽⁶⁾.

Thus, there is a dialectic and contradictory relationship between life and work and between empowerment of life through work, despite being consuming.

CONCLUSION

What is the conclusion on personal and work characteristics?

Physiological workloads are identified and perceived by nursing workers as elements present in the reality of work in the Hospital studied. Exposure to physiological workloads leads to burnout and this burnout may be seen in signs, symptoms and/or diseases, which interfere in the quality of life and in the quality of life in the workplace of nursing workers in the unit.

The present study also showed that nursing assistants and technicians are more exposed to physiological workloads than nurses, and this reality puts them into several burnout processes and affects their quality of life in the workplace. This reality allows stressing the importance of health monitoring programs for nursing workers, encompassing activities that foster and recover health, considering the set of loads these professionals are exposed to.

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