

## WORK AT A SPECIALIZED OUTPATIENT UNIT: OCCUPATIONAL HAZARDS AND HEALTH RISKS TO WORKERS

### RISCOS OCUPACIONAIS E AGRAVOS À SAÚDE DOS TRABALHADORES EM UMA UNIDADE AMBULATORIAL ESPECIALIZADA

### RIESGOS LABORALES Y PELIGROS PARA LA SALUD DE TRABAJADORES DE UN CENTRO DE SALUD ESPECIALIZADO

Norma Valéria Dantas de Oliveira Souza<sup>1</sup>  
Ariane da Silva Pires<sup>2</sup>  
Francisco Gleidson de Azevedo Gonçalves<sup>3</sup>  
Luana dos Santos Cunha<sup>4</sup>  
Liana Viana Ribeiro<sup>5</sup>  
Roseane da Silva Vieira<sup>6</sup>

<sup>1</sup> RN. PhD in Nursing. Associate Professor, Department of Medical-Surgical Nursing, School of Nursing, State University of Rio de Janeiro – UERJ. Pro-scientist, UERJ. Permanent Professor, Postgraduate Programme (Stricto Sensu), UERJ. Deputy Director, School of Nursing of the UERJ. Rio de Janeiro, RJ – Brazil.

<sup>2</sup> RN. MsC in Nursing. Substitute Professor, Department of Medical-Surgical Nursing of the UERJ. Rio de Janeiro, RJ – Brazil.

<sup>3</sup> RN. MsC in Nursing. Substitute Professor, Department of Medical-Surgical Nursing of the UERJ. Rio de Janeiro, RJ – Brazil.

<sup>4</sup> RN. MsC in Nursing. Postgraduate Programme, School of Nursing of the UERJ. Professor, Foundation for the Support of Technical Schools in the State of Rio de Janeiro. Rio de Janeiro, RJ – Brazil.

<sup>5</sup> RN. Master's student in Nursing, Postgraduate Programme, School of Nursing, of the UERJ. Rio de Janeiro, RJ – Brazil.

<sup>6</sup> RN. Nursing Resident, Community Health, Fluminense Federal University. Rio de Janeiro, RJ – Brazil.

Corresponding Author: Francisco Gleidson de Azevedo Gonçalves. E-mail: gleydy\_fran@yahoo.com.br  
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## ABSTRACT

This qualitative, descriptive, exploratory study investigated the occupational hazards that exist in the workplace of health professionals who work at a specialized outpatient unit and the impact of these occupational hazards on the workers' health-disease process. Objectives: to identify the occupational hazards that exist in a specialized outpatient unit, according to the perception of the health professionals who work there, and to analyze the impacts of occupational hazards on these workers' health-disease process. Data were collected from January through February 2011 through a semi-structured interview with 38 health professionals. The data were analyzed through thematic content analysis. The results showed that each professional category, due to the specificities of its work process, emphasized a certain type of risk. However, these professionals recognize that there are risks of different natures in their work environment, such as physical, chemical, biological, ergonomic, the risk of accident and, in particular, psychosocial risks.

**Keywords:** Health Personnel; Occupational Health; Occupational Risks.

## RESUMO

*Pesquisa qualitativa, descritiva e exploratória, que tratou dos riscos ocupacionais no trabalho desempenhado em uma unidade ambulatorial especializada e das repercussões desses riscos no processo saúde-doença dos trabalhadores da saúde. Objetivos: identificar os riscos ocupacionais que envolvem o trabalho em uma unidade ambulatorial especializada sob o ponto de vista dos profissionais de saúde e analisar os impactos dos riscos ocupacionais na saúde-doença desses trabalhadores. A coleta de dados, feita com 38 profissionais de saúde, ocorreu em janeiro e fevereiro de 2011, a partir de entrevista semiestruturada. Os dados foram interpretados à luz da análise temática de conteúdo. Os resultados evidenciaram que cada categoria profissional, devido às especificidades do seu processo laboral, enfatizava certo tipo de risco mais do que outros; os profissionais, porém, reconhecem que existem, no trabalho desempenhado, riscos de diferentes naturezas: físico, químico, biológico, de acidente, ergonômico e, em especial, os psicossociais.*

**Palavras-chave:** Pessoal de Saúde; Saúde do Trabalhador; Riscos Ocupacionais.

## RESUMEN

*Investigación cualitativa, exploratoria, descriptiva acerca de los riesgos laborales en un centro de salud especializado y su impacto sobre el proceso salud-enfermedad de los trabajadores. El objetivo fue identificar dichos riesgos desde el punto de vista de los profesionales. La recogida de datos, realizada con 38 profesionales de la salud, se llevó a cabo en enero y febrero de 2011, a través de la entrevista semi-estructurada. Los datos fueron interpretados a la luz del análisis de contenido temático. Los resultados mostraron que cada categoría profesional, debido a las características de la tarea desempeñada, hacía hincapié en un determinado tipo de riesgo. Sin embargo, los profesionales reconocieron que en el trabajo hay distintos tipos de riesgos: físicos, químicos, biológicos, accidentales, ergonómicos y, en particular, los psicosociales*

**Palabras clave:** Personal de Salud; Salud Laboral; Riesgos Laborales.

## INTRODUCTION

This study aims to investigate the occupational hazards that exist in the workplace of health professionals who work at a specialized outpatient unit and the impact of these occupational hazards on the workers' health-disease process. This research emerged from a previous study, which was completed in May 2010 in the same specialized outpatient unit where this research was conducted and investigated occupational hazards in nursing and possible correlations between the hazards identified and the health problems perceived by nursing professionals.<sup>1</sup>

The aforementioned study revealed that nursing professionals are exposed to numerous occupational hazards, which are characterized as: chemical, physical, biological, ergonomic and the risk of accident. The researchers found that these risks, according to the nursing staff, aggravate or cause the appearance of health problems. Thus, these workers have formulated several recommendations to improve their working conditions. One of these recommendations was the suggestion to conduct another study which tried to capture the perception of other professionals who worked at the outpatient unit about these occupational hazards. For the persons who made this suggestion, the aim of this study should be to plan actions to promote quality of life at work, according to the aspirations of health professionals of various disciplines.<sup>1</sup>

Occupational risk is characterized as "a condition or a set of circumstances that have the potential to cause adverse effects, which may be: death, injury, illness or damage to the workers' health, the property or the environment"<sup>2,3,4</sup> Health workers are subjected to a number of risks: physical (heat, cold, humidity, ionizing radiation), chemical (chemotherapy, glutaraldehyde, enzymatic cleaners, bleach), biological (bacteria, viruses, fungi, protozoa) and mechanical and/or ergonomic (linked to the biopsychosocial nature of the work environment).<sup>2</sup>

To establish the causal nexus between the relationship occupational health and occupational disease, it is essential to understand the occupational risks at the workplace of health professionals. From this understanding, solution proposals may be formulated to control and/or eliminate the risks to which these professionals are exposed to.

In this respect, it is worth noting that information on the specific health situation of workers in Brazil is still lacking. This makes it difficult to properly define priorities for the formulation and implementation of public policies in this field. Thus, to ensure the recognition of work-related diseases, in 2001 the Ministry of Health adopted the use of *Schilling's classification*. According to this method, occupational diseases can be divided into three groups. In the first group, the work appears as a necessary cause and all legally recognized diseases are comprised in this group. In group II, the work is a contributing but not necessary factor. And in group III, the work is considered to trigger a latent disorder or aggravate an already established disease.<sup>3</sup>

The tools used for notification are: Work Accident Communication (CAT) and the Technical Epidemiological Nexus (NTEP), especially for workers who have formal employment contracts and are covered by Workers' Compensation Insurance. However, the fact that there is underreporting of occupational accidents, occupational diseases and diseases related to work among workers with formal employment contracts, makes us reflect about the situation of informal workers.<sup>3</sup>

Therefore, the objective of this study is: to identify the occupational hazards that exist in a specialized outpatient unit, according to the perception of the health professionals who work there, and to analyze the impacts of occupational hazards on these workers' health-disease process.

This study is relevant as it not only gives visibility to the impact of occupational hazards on the health of workers, but also deepens the knowledge on this topic, in order to support the planning and implementation of measures to prevent damage to the health of these professionals.

We emphasize that this study aims to contribute to the knowledge on occupational health, as it not only provides information on the working context of these professionals but also on the actual situation of their health-disease process. In addition, we seek to provide information to the Department of Safety and Occupational Health team, to which these participating professionals are linked. This information might support the implementation of actions to prevent risks and health problems, as well as support the development of measures to mitigate and/or neutralize the negative impacts on workers' health.

## METHODS

This qualitative, descriptive, exploratory study was conducted at a specialized outpatient unit, having a total physical area of 18,500 m<sup>2</sup>, and a usable floor area of 15,000 m<sup>2</sup>. This unit is also linked to a University located in Rio de Janeiro. Thus, it is a practical field for students, medical interns, and Nursing, Medical, Nutrition, Social Work, Psychology, Dentistry, Speech Therapy residents, among other health professions.

Data collection took place in the following sections of the outpatient clinic: Ambulatory Surgery Unit (UCAMB); Department of Clinical Medicine; Psychology Clinic; Nutrition Clinic; Vascular Clinic; Social Services Sector; Family Health Strategy Clinic; Speech and Physical Therapy Clinic, and Dental Clinic.

The study sample consisted of 38 professionals from the multidisciplinary health team, including physicians, dentists, nutritionists, social workers, nursing professionals (nursing technicians and nurses), physical therapists, speech therapists and psychologists.

Note that the amount of participants from each of the specialties mentioned above was proportional to the number

of professionals working in the outpatient unit. Thus, two professional categories had a smaller number of participants: Psychology and Speech Therapy, because there is a smaller number of professionals from these two categories working in the institution, when compared to the other categories.

Inclusion criteria were: to be working normally, i.e., not being on leave or on vacation at the time of the study; all participants should have been working in the clinic for at least one year, which meant that they were familiar with the process and adapted to the workplace environment.

Data were collected from January through February 2011 through a semi-structured interview, containing three questions. Participants were asked the following questions:

- talk about your everyday work in the outpatient unit;
- describe aspects of your work or work environment, which may have negative effects on your health;
- talk about how your health or disease gets affected due to work-related issues.

The data collection process occurred after three contacts. The first contact was made with the director of the institution where this study was conducted. The director was informed about the objectives, the relevance and the contributions of the study. Next, we contacted those professionals who were responsible for the professionals who composed the multidisciplinary team and could be willing to participate in the study. Finally, we contacted the health professionals at their workplace, and scheduled a time and location for data collection. All contacted professionals were willing to participate in the study.

The data were analyzed through thematic content analysis,<sup>4</sup> which consists of three chronological steps: pre-analysis; exploration of the material; processing of results, inference and interpretation.

Using this technique to analyze the content of the interviews, 100 recording units (RU) we identified. These RU were characterized as groups of words that were for meaningful for the apprehension of the object. The RUs were grouped into five different groups/themes, which were then associated in order to generate two analytical categories: the dialectic of the occupational hazards that exist in the workplace of health professionals and the impact of occupational hazards on the workers' health-disease process.

The study project was submitted for evaluation and subsequent approval by the Ethics Committee of the University to which the clinic is linked (Protocol number 2528).

In accordance with Resolution 466/2012<sup>5</sup>, which was in force during the data collection period, all participants and researchers signed an informed consent form, in duplicate. A copy of the form was handed to each of the parties involved. Participants' anonymity was preserved by the use of a coding

system. Each participant was identified by the letter 'E' (for interview, in Portuguese), followed by a cardinal number according to the sequence in which the interview took place. Thus, the first interviewee was named 'E1', the second 'E2' and so forth. In addition, to enable the correlation between the selected speeches and the professional who experienced a determined situation related to the object of study, we chose to place the professional category to which the participant belonged at the end of the code (e.g.: E1 – DENTIST).

## RESULTS AND DISCUSSION

The categories presented and discussed below show a correlation with two thematic areas studied: risk perception by workers and the impact of occupational hazards on the workers' health.

### 1<sup>ST</sup> CATEGORY: THE DIALECTIC OF THE OCCUPATIONAL HAZARDS THAT EXIST IN THE WORKPLACE OF HEALTH PROFESSIONALS

This category was built by grouping the following themes: recognition of occupational hazards by health professionals and lack of workers' perception of occupational hazards. Participants' perceptions were manifested in a contradictory way, in the sense that, although the risks are clearly identified, they are sometimes minimized or even not perceived as such by the worker.

It is noteworthy that 36 subjects reported recognizing the existence of occupational hazards at their workplace. Two of these participants emphasized the perception of different types of occupational hazards in the same work environment. Paradoxically, two of the 38 participants reported not perceiving any occupational hazards at their workplace.

In addition to this, it is noteworthy that, in five different recording units, eight of the 38 participants tried to understate the actual occupational risks or showed a mistaken view about this topic. We found that this is due to a few misbeliefs surrounding the topic, such as: the belief that low immunity is so prevalent that it predisposes workers to risks; the belief that occupational risks are eliminated through the use of personal protective equipments; and the idea that occupational hazards at an outpatient setting are minimal when compared to the hazards that exist in a hospital.

*[...] If the person has some disease, like tuberculosis, for example, or if the person is not properly vaccinated, something may happen, otherwise [...] Because this is not a hospital, this is an outpatient setting, so I do not think this issue is so problematic. However, a flu, for example, at the time of the swine flu outbreak, if your immunity is low you may contract it [...]* (E10 – NURSING TECHNICIAN).

*If I know that there are risks to my health, I take the necessary measures and precautions, and use personal protective equipment. So I am not at risk and the environment is safe (E18 – DENTIST).*

In this case, we see that there are professionals who are not aware of the occupational hazards that exist in the work environment or who try to understate them. This is because they ignore the dangers they are exposed to, as well as the actual function of personal protective equipment, demonstrating a mistaken and/or distorted view of the subject.

A personal protective equipment is a device designed to protect (the body of) the employee from possible occupational hazards in the work environment. Thus, it is understood that the use of such equipment is not intended to eliminate the risks to which workers are exposed at their workplace, but rather to provide protection against such risks.<sup>6</sup>

Furthermore, it is important to mention that the occupational risks may be: hidden – out of ignorance, lack of knowledge or lack of information; latent – because they only arise or cause damage in emergency situations or stress conditions; real – known to all, but without possibility of control, because of the lack of solutions, high costs or lack of political will.<sup>7</sup>

Dialectically, we found that most participants identified the existence of occupational hazards in their work environments. The risks that were most often identified by participants were the risks of exposure to biological agents, especially due to accidents with contaminated sharp materials.

Not only the nursing staff, but also all the other health care team members who have to handle biological materials are at risk of accidental exposure to these biological agents. From the set of risks to which health workers are exposed to, we highlight the accidents with sharp materials, which are the most common accidents among health workers.<sup>7,8</sup>

*[...] An accident, because we use sharp materials, you know? That's why now we always wear shoes, no sandals. And the contamination part, i.e., the blood. We step on it and may get contaminated [...]. (E24 – DENTIST)*

*[...] Because the people here take blood glucose tests, we work with biological material (E19 – NURSING TECHNICIAN).*

*One of the highest risks is when you deal with wounds, especially when the task involves ulcers, which have Pseudomonas, MRSA (E24 – NURSING TECHNICIAN).*

We observed that the perception of psychosocial risks emerged strongly in the workers' speeches. Thus, all recording

units related to stress were identified as an occupational risk factor. The onset of stress-related disorders is associated with the mental overload caused, on the one hand, by the need to share the suffering of patients and, on the other hand, by the precarious labor conditions that are becoming common in the public health system. This is because these conditions, in many ways, limit the worker's possibilities of reaching the final goal of their work, as well as the provision of quality care.

Because psychosocial risks are subjective risks, they are very difficult to identify. Moreover, the establishment of a causal nexus between these risks and an individual's work activities is not easy. Therefore, there is great possibility of undervaluing or disregarding the dangers caused by psychosocial risks, as well as their impact on workers' health.<sup>9</sup>

The excerpts below characterize this analysis:

*[...] So you end up getting too much involved in, you find out/learn a lot here. You end up finding out about family problems, that a patient gets beaten up or has HIV, and so on. And you end up getting emotionally overwhelmed [...]. (E34 – NUTRITIONIST).*

*Oh, every health professional is at risk of contracting diseases, now the worst of all is that the presence of mental health risk. We work with other people's problems. It is very difficult sometimes to come across problems that are out of your scope, but you have to solve them, and you see how the other person is in pain, so I think that's the worst part. And sometimes, you don't have the appropriate working conditions to solve the problem (E15 – PHYSICAL THERAPIST).*

With regard to the existence of ever more precarious working conditions and labor relations, we found that there have serious repercussions in the workplace, such as difficulties to carry out one's professional activities due to the qualitative or quantitative lack of material and/or human resources. Moreover, we are experiencing the development of a macro-structural context in which health professionals are hired with different types of working contracts: the statutory – when the candidate passes a public test -, and the temporary – when a professional is hired because of suggestions from other professionals and/or after passing a simplified selection process. Among the differences between both types of contract there is the fact that temporary workers are not entitled to many rights to which statutory professionals are entitled, such as employment stability. In addition, there is a large wage gap between these two groups. Temporary workers earn much less, which creates certain uncertainty in the pursuit of personal desires such as financial or material wishes or investment in professional development.

In the health sector, especially as regards the recruitment of professionals, labor relations are becoming ever more precarious, and this aspect is linked to modern movements of late capitalism. In general, the economic characteristics of this type of development force employees to accept these precarious contractual relationships, because the other option would be unemployment, which is socially more exclusionary than the first option.<sup>10</sup>

Many participants mentioned the fear of unemployment in their statements. This fear becomes a stressor factor at work, and constitutes a psychosocial risk.

*[...] The main risk here are the psychological risk factors, because we signed a contract and, if anything happens you may get fired. Sometimes you end up doing things that are yours tasks, because you are afraid that your contract will be terminated [...]* (E23 – NURSE).

The fear expressed by these workers is directly related to the managers' pressure for productivity and reduced absenteeism. Thus, workers try to increase their work pace and perform activities that are not part of their tasks in order to demonstrate excellence, minimize the risk of being discharged/dismitted and ensure their material subsistence, even if it prejudicial for their physical and mental health.

This situation has worsened increasingly, as health workers are easily replaced by other professionals in health institutions, because there is currently large supply of manpower in the health sector. Other workers are also afraid of losing their formal job, to which many rights and social benefits are tied; for this reason, they subject themselves to often degrading conditions. Thus, this evidences a difficult situation with great potential for making workers ill.<sup>11</sup>

Participants also mentioned the existence of chemical risks, in addition to ergonomic and physical risks. These risks were justified by the existence of inadequate physical conditions in the outpatient unit, given that it is an old building, with many obsolete equipment and poor maintenance. Thus, the following statements illustrate numerous structural deficiencies in the unit, which are sometimes detrimental to the performance of health professionals and to their health:

*[...] There's also the ergonomic risk and we have to take some precautions. Even when we do take them, sometimes there are repercussions, because we don't have an appropriate environment to perform our working activities in a precise way [...]* (E22- SOCIAL SERVICES).

*There are also physical risks, because I deal with X-rays and also am in environments where a lot of air conditioning is used. Thus, the filters should be always*

*cleaned, otherwise the air becomes very contaminated* (E2- DENTIST).

*There is the risk that comes from the mold issue, there is a lot of mold here. Both for us and for the children, all this mold in here is dangerous. Many people are presenting rhinitis. I arrive here and there's a very strong smell of mold and this triggers a strong allergic reaction in me* (E36- NUTRITION).

It is noteworthy that, the Brazilian legislation has been gradually covering a set of devices that go beyond the mere concern with the prevention and treatment of occupational injuries and diseases, and include broader aspects, such as promoting and protecting the health of workers. However, there is a need for better supervision and reorganization of the various areas of health institutions, such as the quantitative and qualitative analysis of human and material resources, as well as new proposals for the reconfiguration of the organization and of the work in health care.<sup>11</sup>

## 2<sup>ND</sup> CATEGORY: THE IMPACT OF OCCUPATIONAL HAZARDS ON THE WORKERS' HEALTH-DISEASE PROCESS

Two themes are grouped in this category: workers' perception about the negative impact of occupational hazards on their health, causing various diseases and/or possible injuries, and aggravation of existing conditions; and the lack of perception and/or diseases and/or health problems. Each one of these themes covered 32 and one recording unit, respectively.

Among the participants who perceived negative impacts on health caused by the exposure to occupational risks, many stated the appearance of work-related musculoskeletal and postural changes. In this sense, it can be inferred that the effects of ergonomic risks on the workers' body may be justified by the performance of activities that are inherent to their professions, which are considered to be physically and mentally wearing. In addition, there is the possibility that these effects are aggravated by inadequate physical conditions (obsolete physical structure and machinery).

*[...] I work a lot in the same position in order to evaluate the patients' teeth, so I already have some problems in my column, due to my posture, my spinal column is already damaged. However, it is aggravated by the use of old, obsolete equipments [...]* (E2 – DENTIST).

*I had a knee surgery about a year ago. And because the escalator is out of work and I need to go up and down*

*the stairs all the time, I have knee pains that hinder my daily work (E9 – SOCIAL SERVICES).*

Reduced physical spaces, poor ergonomic conditions, improvisations of equipment – often making it inadequate for its originally designed purpose –, lead to the adoption of incorrect physical positions and postures, and contribute to the occurrence of fatigue and a high incidence of diffuse pain in several body parts of the health worker.<sup>12</sup>

Changes in the respiratory system and the occurrence of allergic diseases were also mentioned: “[...] *Not to mention the allergy, because I am an allergic person. The environment in which we live is totally unhealthy, being here only worsens my allergy symptoms, it precipitates an allergic crisis and worsens everything [...]*” (E31 – MEDICINE).

The issue of excessive humidity in the work environment, which is correlated with the triggering of respiratory problems, was also cited. It must be emphasized that, besides the fact that the building of this outpatient unit is old and deteriorated by long years of use, there is a natural stream near the left side wall of the building, which sometimes floods and invades some sectors of the outpatient unit, leaving mud banks and high humidity behind. The location of the ophthalmological clinic makes this sector the most affected by humidity.

Stress was also mentioned by participants as one of the main effects of occupational hazards on health. It was correlated with the low capacity of solving the problems of patients, who unable to make appointments; with the need for constant attention in the performance of their activities; and with the work overload.

As for the forms of stress manifestation among workers, participants mentioned mood changes, headache, generalized pain, insomnia, and fatigue.

*[...] I notice that it's a very stressful day of work, with many questions. When I leave here, I'm very stressed out, very tired, feel pain, most often headache [...]* (E8 – SOCIAL SERVICES).

*In relation to health, the most affected part is the psychological part, due to the poor working conditions that we have. Having to see a patient and not being able to help him/her. This causes psychological stress (E29- MEDICINE).*

*[...] I notice that there are mood changes, even in relation to nutrition and quality of life, due to the working hours, working time, overload, stress [...]* (E30 – MEDICINE).

The mental suffering of health workers may cause the development of many morbidities. This situation is determined

by structural problems, given the fact that health institutions experience a shortage of human and material resources, which result in work overload and stress due to the low efficiency of services. In addition, there are the characteristic aspects of work in health care, which involve dealing on a daily basis with pain, economic need and disease, situations that emotionally affect health professionals.<sup>11</sup>

Changes in the sense organs were also reported by subjects as being the effects of long-term exposure to occupational risks. Thus, auditory and visual difficulties, as well as changes in the vocal cords have been reported as conditions perceived by the participants.

*[...] It causes many back problems and also eye problems, because we have to force our eyes to see. And there is also the problem of deafness, I have to hear that motor noise all day and it has been proven that most professional lose at least 30% of their hearing [...]* (E5 – DENTIST).

*I work a lot with my vision, so I have to force my eyes to check the teeth and the bottom of cavities. And because I am always forcing my eyes, I already have some eye problems (E2 – DENTIST).*

*[...] The only change I notice is related to the vocal cords. At the end of the day we are a little tired, because we repeat the same thing over and over again. We usually see nine patients a day here, during the morning. Then, at the end of the day, our throat is a little tired, dry [...]* (E35 – NUTRITIONIST).

The dental office environment has several sound agents that are prejudicial to the sense of hearing, such as the noise of high-speed dental borers, micromotors, compressors, water/air sucking machines, air conditioners, and other external noises. Studies conducted with dentists who work with high-speed dental borers have shown moderate hearing loss. It is a gradual, progressive and painless aggression, and that is the reason why it is not perceived in the early stages of the disorder.<sup>13</sup>

13 participants reported that they did not notice any changes in their health arising from exposure to occupational hazards. These statements were more often made by social workers and nursing technicians: “[...] *No, thank God I do not have anything that can be correlated with my work. Not at all. I see nothing that could be associated with my work [...]*” (E4 – SOCIAL SERVICES).

In addition, one of the participants contradicted himself about not seeing any negative effects of his work on his health, by reporting that he already had developed infections due to

the contact with body fluids. He also understates this impact on his health, by considering it to be of low gravity.

*[...] I do not see changes in my health because my work is peaceful. [...] well, it has already happened once that a patient's saliva entered into my view, in my cornea and I had an infection. But this was not a big problem. Now, this kind of thing, the falling of a material, has already happened a few times [...]* (E25 – DENTIST).

One of the nursing technicians, who said that he had never experienced any effects of occupational hazards on his health, shifts the focus to the patient, showing that any concerns with his health come second, and the patient's health comes first.

*[...] The only thing related to health that you notice is the concern that you have about the patient's condition, because sometimes the patient is well, and then he suddenly gets worse. This really brings concern. I do not worry too much about my health because I'm well immunologically protected [...]* (E24 – NURSING TECHNICIAN).

Nursing professionals are dedicated to the well-being of people in vulnerable conditions (or not). However, not infrequently, these professionals neglect the care of their own health. This situation leads the workers to ignore themselves and their needs, and create a reduced and mistaken view of their working conditions. However, it is known that self-care is essential to the workers' physical, mental and spiritual balance, and is also a factor that may qualify the care provided to others.<sup>14</sup>

## CONCLUSION

Regarding the perception of health workers about occupational hazards to which they are exposed, the results showed that a large proportion of the subjects critically analyzes the work process in which they are inserted, and recognizes that their work carries a high occupational risk. This study also evidenced that each professional category, due to the specificities of its work process, emphasized a certain type of occupational risk. However, these professionals recognize that there are risks of different natures in their work environment, such as physical, chemical, biological, ergonomic, the risk of accident and, in particular, psychosocial risks.

Noteworthy is also that workers strikingly reported the existence of psychosocial risks arising from their precarious working conditions, from unstable employment contracts, from patients' life and health problems, among others, which result in stress and negative effects on health.

Thus, we found that the effects of exposure to occupational risks manifest themselves in the form of a variety of problems, such as tiredness, fatigue, stress, recurrent headache, mood changes, inadequate nutrition and sleep disorders. The workers are also affected by musculoskeletal and postural changes, circulatory system disorders (especially varicose veins), and hearing problems (such as hypoacusia).

Based on these results, we recommend the following actions: improve the physical structure of the outpatient unit and buy functional and ergonomic furniture; conduct periodic maintenance of equipment and machinery; provide adequate lighting and ventilation of the sectors; implement a workplace exercise and healthy eating program; increase the number of professionals in order to reduce the work pace and the workload; pay higher wages; and hire ergonomists to better adapt the workplace to the workers' characteristics.

All recommendations suggest two major aspects: the restructuring of the work process in general and the compliance with ergonomic standards. These measures should be taken in order to achieve positive changes and hence improvements in the labor dynamics and in the quality of life of these workers, who maintain, through their labor activity, the daily provision of care to users of health services.

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