

ACCIDENTS AT WORK AND THEIR REPERCUSSIONS AMONG NURSING PROFESSIONALS**ACIDENTES DE TRABALHO E SUAS REPERCUSSÕES ENTRE PROFISSIONAIS DE ENFERMAGEM****ACCIDENTES DE TRABAJO Y SUS REPERCUSIONES EN LOS PROFESIONALES DE ENFERMERÍA**

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How to cite this article: Accidents at work and their repercussions among nursing professionals. Rev Enferm Atenção Saúde [Internet]. 2025 [access:_____]; 14(1): e202559. DOI: <https://doi.org/10.18554/reas.v14i1.7929>

ABSTRACT

Objective: To understand the impacts of work accidents among nursing professionals.

Methods: Descriptive, exploratory and quantitative study, carried out in September 2022, in a municipal hospital, located in Pinheiro-MA. Sample composed of 54 nursing professionals. For collection, a semi-structured and adapted questionnaire, Work Accidents among Nursing Professionals, was used. **Results:** The risk factor frequently involved in TAs was biological in nature, 77.2%, with the occurrence of at least one accident per professional per year, 63.6%. It was observed that the biggest risk factor mentioned, 36.36%, was those caused by sharps, and psychological disorders were the main sequelae among professionals, 9%. **Conclusion:** Among the occupational damages that most impacted the health of nursing workers, mental illness was the most mentioned. In identifying injuries, those of a biological nature due to the handling of sharp materials were the most representative.

Descriptors: Accidents, Occupational; Nursing; Occupational risks; Occupational Health Nursing

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RESUMO

Objetivo: Conhecer os impactos dos acidentes de trabalho entre os profissionais de enfermagem. **Métodos:** Estudo descritivo, exploratório e quantitativo, realizado em setembro de 2022, em um hospital municipal, localizado em Pinheiro-MA. Amostra composta por 54 profissionais de enfermagem. Para coleta utilizou-se questionário semiestruturado e adaptado, Acidentes de Trabalho entre Profissionais de Enfermagem. **Resultados:** O fator de risco frequentemente envolvido nos AT foi o de natureza biológica 77,2%, com a ocorrência de pelo menos um acidente por profissional ao ano 63,6%. Observou-se que o maior fator de risco apontado 36,36%, foram os causados por perfurocortantes, e o transtorno psicológico como a principal sequela entre os profissionais 9%. **Conclusão:** Dentre os danos ocupacionais que mais impactaram a saúde do trabalhador de enfermagem, o adoecimento mental foi o mais referido. Em identificação aos agravos, os de natureza biológica pelo manuseio de materiais perfurocortantes foram os mais representativos.

Descritores: Acidentes de trabalho; Enfermagem; Riscos ocupacionais; Enfermagem do trabalho

RESUMEN

Objetivo: Comprender los impactos de accidentes de trabajo entre profesionales de enfermería. **Métodos:** Estudio descriptivo, exploratorio y cuantitativo, realizado en septiembre de 2022, en un hospital municipal, ubicado en Pinheiro-MA. Muestra compuesta por 54 profesionales de enfermería. Para su recogida se utilizó el cuestionario semiestructurado y adaptado Accidentes de Trabajo entre Profesionales de Enfermería. **Resultados:** El factor de riesgo frecuentemente involucrado en las AT fue de carácter biológico, 77,2%, con la ocurrencia de al menos un accidente por profesional al año, 63,6%. Se observó que el mayor factor de riesgo mencionado, 36,36%, fueron los provocados por objetos cortopunzantes, y los trastornos psicológicos fueron las principales secuelas entre los profesionales, 9%. **Conclusión:** Entre los daños ocupacionales que más impactaron la salud de los trabajadores de enfermería, la enfermedad mental fue la más mencionada. En la identificación de lesiones, las más representativas fueron las de carácter biológico por manipulación de materiales cortantes.

Descriptores: Accidentes de trabajo; Enfermería; Riesgos laborales; enfermería del trabajo

INTRODUCTION

An occupational accident (OA) is an event related to work practices, due to the company or work of special insured persons, capable of causing bodily or functional damage and leading to death or reducing the ability to perform their activities. The risk of these incidents occurring during the performance of activities varies according to the occupation, its characteristics and the resources available.^{1,2}

Workers involved in health service provision activities perform functions directly with patients, as well as using potentially contaminating and unhealthy machinery and spaces. Among them, nursing professionals make up the largest percentage, corresponding to approximately 60% of all interventions related to the care process.^{4,5}

Due to the contingent, nursing professionals are part of the categories of workers in the health area most exposed to these risks and are therefore the most vulnerable to emotional/mental exhaustion, overwork and insufficient equipment. These defining conditions for the occurrence of accidents and occupational diseases.⁶

The increase in accidents at work may also be related to low adherence to institutional safety protocols and to employees' insufficient knowledge of these measures. Not wearing personal protective equipment (PPE), for example, makes people more vulnerable to risks and this is even more

serious in a hospital because of the potential exposure to infectious diseases.⁷

From this perspective, this research gains special relevance when discussing issues related to occupational risks and the impacts related to the occurrence of accidents at work for organizations and health professionals. The risk factors found become determinants that can help in the planning of permanent activities in order to mitigate such events, taking into account that this is the most representative group of workers in any hospital institution.

Therefore, the study aims to understand the main work-related accidents among nursing professionals.

METHODS

This is a descriptive and exploratory study, of a quantitative and field nature, carried out in a medium-complexity municipal hospital, located in the municipality of Pinheiro- MA, during the month of September 2022.

The sample, established by convenience, was composed of 54 nursing professionals (nurses and technicians) working in the Emergency, Medical/Surgical/Orthopedic Clinic and Intensive Care Unit of the Hospital. The study included nursing professionals who worked on a daily basis and those who had worked for at least 1 year in the aforementioned hospital. Professionals who

were on leave/vacation, who erased or did not answer the questionnaire in full, night shift workers and nursing professionals who were not working in care were excluded.

The adapted semi-structured questionnaire entitled “Underreporting of Occupational Accidents among Nurses in the Emergency Department” was used for data collection, produced by Vitor Manuel Quesado Arieiro (2015) in his master's thesis in medical-surgical nursing at the Polytechnic Institute of Viana do Castelo, containing 25 questions about Occupational Accidents among Nursing Professionals. After presentation of the terms of the research, nursing professionals who met the eligibility criteria and agreed to participate were invited to sign the Free and Informed Consent Form (FICF), and then instructed on how to complete the questionnaire, which they were free to do independently.

After collection, the data were tabulated and entered into spreadsheets in Microsoft Excel 2019, analyzed using the responses from the collection instrument. Distribution tables and graphs were created, emphasizing the results that demonstrated greater relevance and were fundamental for analysis.

The study complied with all established ethical principles and was submitted for evaluation by the Research Ethics Committee of the University Hospital of the Federal University of Maranhão

(HUUFMA) under CAAE: 57656022.00000.5086.

RESULTS

There was a predominance of females (92.6%), aged between 26 and 35 years (37.03%), where the majority (70.4%) were nursing technicians. The employment relationship was for an indefinite period of work in the institution (55.6%), with professional experience of 1 to 5 years (46.30%). The sector that stood out was the Emergency Department (27.8%). Regarding the working hours, 48 hours per week were identified (44.4%), with an average working day of 24 hours (83.3%) (Table 1).

Table 1- Distribution of sociodemographic data.

Variables	n(%)
Gender	
Feminine	50(92.6)
Masculine	4(7.4)
Age range	
20 to 25 years old	6(11,11)
26 to 35 years old	20(37.03)
36 to 45 years old	16(29.63)
46 to 55 years old	9(16.67)
56 to 66 years old	3(5.56)
Professional category	
Nurse	16(29.67)
Nursing technician	38(70.33)
Type of employment relationship with the institution	
Public Service Employment Contract	10(18.5)
Fixed Term Contract	1(1.8)
Indefinite Term Contract	30(55.6)
Individual Employment Contract	13(24.1)
Length of Professional Experience as Nurse or Nursing Technician:	
1 to 5 years	26(46,30)
6 to 10 years	14(25.92)
11 to 15 years old	7(12.96)
16 to 25 years old	6(11,12)
26 to 30 years old	1(1.85)
31 to 35 years old	1(1.85)
Work Sector in the Institution	
Emergency	15(27.8)
Surgical Clinic	9(16.7)
Medical Clinic	12(22.1)

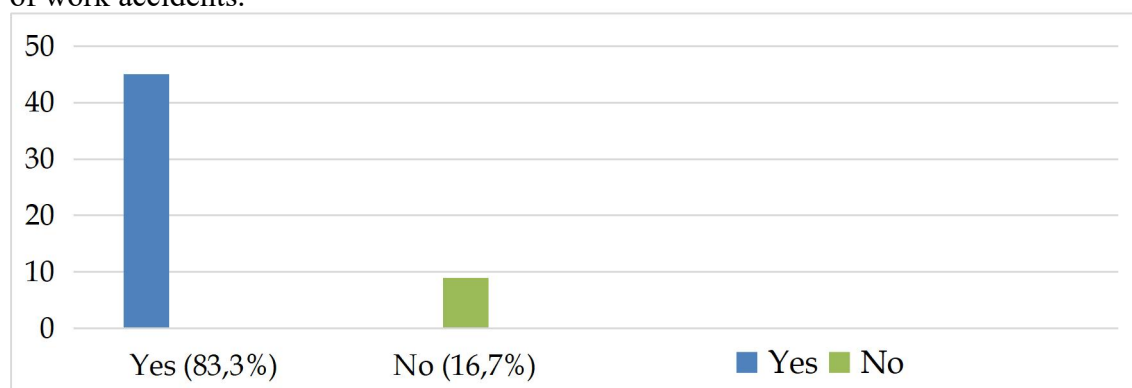
Orthopedic Clinic	9(16.7)
ICU	9(16.7)
Weekly Hours at the Institution	
36 hours	17(33.3)
40 hours	10(18.5)
42 hours	2(3.8)
48 hours	25(44.4)
Average Working Hours	
12 hours	9(16.7)
48 hours	45(83.3)
Total	54(100)

Source: Research data.

When analyzing Graph 1, it was found that professionals (83.3%) knew the steps adopted after an Occupational Accident (OA), established by the institution.

At the same time, 16.7% demonstrated that they did not have any level of knowledge about the procedures.

Graph 1- Proportion of professionals' knowledge about the procedures adopted in the event of work accidents.



Source: Research Data.

Table 2 shows the number of cases reported by professionals (68.2%). Since it is considered a standard procedure of the institution, 59.1% of employees reported this

as the main reason for reporting. In addition, the risk factor most frequently reported in the OA was “biological in nature” (77.27%). When investigating the number of nursing

professionals who suffered some type of accident, 68.1% reported having suffered at least one in the last year (63.6%).

The data showed that the shift with the highest incidence was in the morning

(50.9%), and there was no absence due to the incident (81.81%). When stratifying the origins of the accidents, it was observed that the greatest risk factor indicated was Sharp Object Containers (36.36%).

Table 2- Distribution of work accidents.

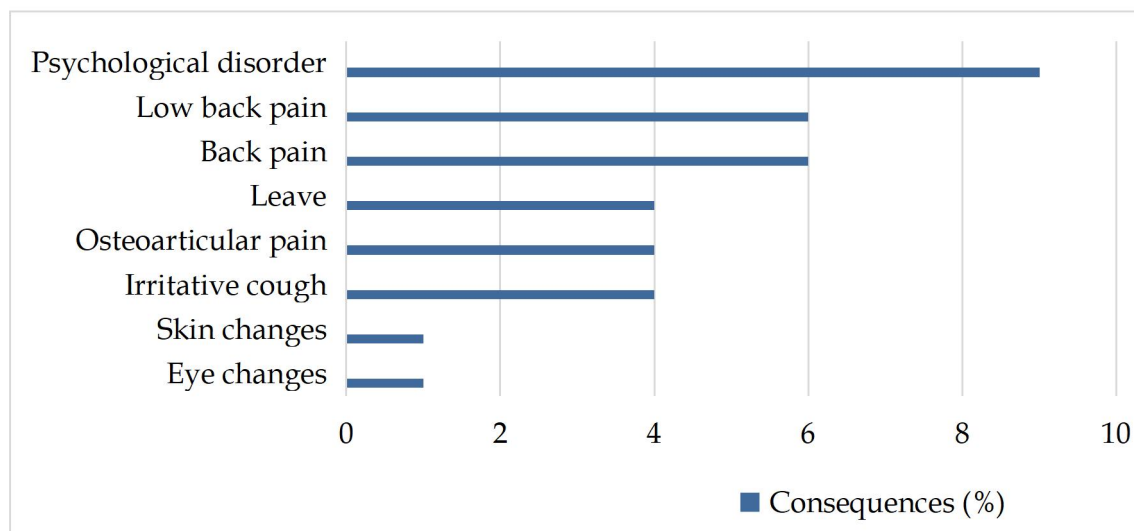
Work Accidents	n(%)
Have you reported all the accidents you have suffered?	
Yes	15(68.2)
No	7(31.8)
If you reported the work accidents you suffered in the last year, what were the reasons that led to them?	
this notification?	
It is a standard procedure of the institution	13(59.1)
Not notified	7(31.8)
I didn't need to notify	2(9,1)
Number of nursing professionals who suffered some type of work accident at last year	
Yes	15(68.1)
No	7(39.1)
How many work accidents have you suffered in the last year?	
Just one	14(63.6)
Only two	6(27.3)
Others	2(9,1)
Shift in which this accident occurred:	
Morning	13(50.09)
Afternoon	5(22.72)
Night	4(18,10)

Days of removal in consequence of the accidents	
No day	18(81,81)
Just one week	3(13.64)
From one to two months	1(4.55)
What were the risk factors involved in this? work accident?	
Biological Risk Factors	17(77.27)
Psychosocial Risk Factors	1(4.54)
Chemical Risk Factors	4(18,19)
Causes of reported work accidents	
Sharp Object Containers	8(36,36)
Improper Use of Sharp Material	5(22.72)
Improper Use of PPE	4(18,18)
Performing Multiple Tasks Simultaneously	2(9.09)
Physical Fatigue	1(4.55)
Working conditions	1(4.55)
Total	22(100)

Fonte: Dados da pesquisa.

Regarding the consequences of exposure to accidents, psychological disorders (9%) were found to be the main sequelae present among professionals, followed by low back pain and back pain (6%) (Graph 2).

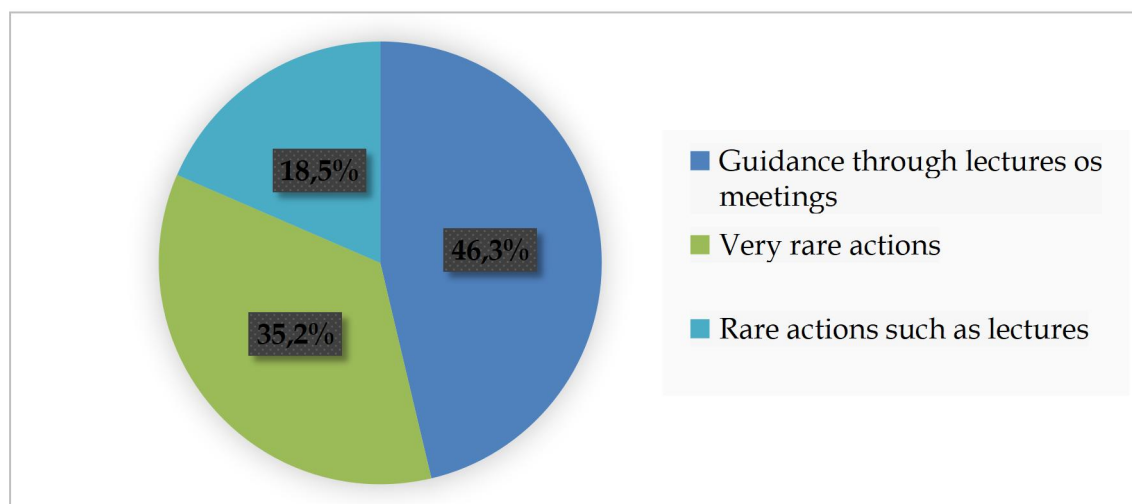
Graph 2- Consequences of reported work accidents.



Source: Research Data.

When checking the measures adopted by the institution to prevent or minimize these problems, the majority of interviewees (46.3%) indicated that guidance through lectures or meetings were the most used methodologies (Graph 3).

Graph 3- Distribution of the main prevention actions.



DISCUSSION

Healthcare facilities are complex environments that present different risks to workers and require careful adaptation in the execution of their activities through the creation and observance of safety protocols, in order to reduce the human, economic and social repercussions of possible workplace accidents.⁷

Category 1: Impacts of AT among nursing professionals

In the present study, the predominant professional category was that of nursing technician, with results similar to those of a study⁷, carried out in Maranhão, where the majority worked as nursing technicians, followed by nurses.⁸

The practices of the nursing team in hospitals are permeated by the performance

of several procedures of varying complexity. In this case, technicians mostly perform procedures, largely related to direct patient care, which means that they are also exposed to greater occupational risks and consequent accidents.^{10,9}

We found that most nursing professionals work in the emergency department and that, generally, the workload was 48 hours per week, and that most accidents occurred in the morning shift. These findings are particularly relevant because emergency services require maximum discretion and assertiveness in professional conduct, and this involves the need for a reasonable workload in order to guarantee the worker a balance between rest and activity periods. Regarding the morning shift being the most common period for accidents to occur, this is possibly related to the greater demand for patients during this period, compared to the afternoon and night

shifts, and the insufficient number of nursing professionals to provide care.

The activities of nursing teams in hospital institutions are characterized by the provision of permanent and uninterrupted care, allowing for the continuity of assistance and balance of efforts to be made during work. However, this may imply exhausting workdays, carrying out procedures that involve, among other things, the handling of sharp objects and biological material, contributing greatly to the occurrence of accidents.¹¹

Regarding the consequences of exposure to accidents, psychological disorders were the most impactful according to professionals. Situations involving long working hours, risk of contamination, little professional recognition, low pay, possible problems in interpersonal relationships with colleagues and/or management, accumulation of responsibilities and imbalance between personal/professional demands contribute to the development of mental illness among health workers, especially nursing professionals.¹²

In hospitals, nursing professionals perform medium/high complexity and dynamic procedures that cause fatigue and stress, posing a risk to their health and compromising the performance and delivery of teams. In addition to issues related to training and implementation of safety protocols, it is necessary to strengthen

strategies for identifying and rescuing these professionals who develop psychiatric and/or psychological damage. Organizations must create and manage indicators that can support actions that allow for the prevention and mitigation of such events.

The accidents that occur reveal the weakness of safety management, which implies the loss of learning opportunities, increasing the difficulties faced by professionals in developing work activities with sharp objects, weakening the preventive possibilities of intervening in certain measures aimed at checking the situations described and their results in terms of prevention, avoiding similar accidents as well as the introduction of new types of risks and accidents, which could be implemented.¹³

Category 2: Most prevalent occupational accidents (OA) among nursing professionals

In our study, we found that the most common work accidents were related to biological risk factors caused by sharp objects. These data corroborate the findings in the literature, which lists this type of accident as the most frequent and one of the most serious, with significant repercussions for workers. In addition to physical issues, such accidents can cause psychosocial problems and interfere with the social, family and work relationships of these

professionals.

During patient care, nursing workers are exposed to numerous risks arising from chemical, physical, ergonomic and biological agents present in the hospital environment.¹⁴ The risk of infection through contact with pathological agents is always present among workers in health units and prevention and control actions need to be permanently implemented.¹⁵

In this context, it is imperative to strengthen processes and routines among health organizations that can predict and address potential work-related injuries. Occupational accidents and unnecessary exposures will be promptly combated when the efforts of all stakeholders are geared toward implementing a culture of occupational safety, with a view to offering workers opportunities for training, ongoing assessment of implemented measures, investigation of accidents that occur, and a structured flow of care for professionals involved in accidents.¹⁶

Category 3: Main strategies for reducing workplace accidents

In our research, the main strategies to reduce occupational accidents were related to guidance on safe work through lectures or meetings on the subject. These findings are in line with those listed in the study by Carvalho⁹, which reported the constant need to encourage educational actions in the

workplace, especially considering that by mobilizing the workers themselves it is possible to improve their perception of the risks to which they are exposed and how they can and should be minimized. It also notes that nursing professionals should be motivated to participate in improvement courses, which allow them to have a better theoretical and practical basis in developing quality work, beyond technicalities, providing the team and users with a safer environment.¹⁰

It is the right of the health professional to know all the risks to which they are subjected, the protection methods and institutional biosafety protocols, just as it is the duty of the employer, the health establishment, to offer safe working conditions with clear, systematic and widely publicized criteria in the institution.¹⁷

In this sense, it is expected that this research can contribute to the improvement of nursing professionals in the face of occupational risks in the work environment, stimulating new discussions and strategies for preventing occupational illness, as well as strengthening continuing education among hospital workers, in order to expand actions for reporting occupational events and injuries, supporting the implementation of evaluation, information and monitoring committees for occupational risk.

CONCLUSION

The study found that among the occupational injuries that most impacted the health of nursing workers, mental illness was the most frequently reported. Regarding the injuries identified, those of a biological nature due to the handling of sharp materials were the most representative and the most adopted strategy to prevent or minimize injuries among nursing professionals was guidance through lectures or meetings.

In this scenario, it is necessary to strengthen the ongoing education process in order to raise awareness among workers and managers about the importance of preventing injuries and promoting occupational health. We also suggest implementing actions that clearly and precisely address issues related to occupational health with a view to ensuring the physical and psychological well-being of employees. We also point out that it is possible to provide systematized nursing care in occupational health, which will have a positive impact on the hospital, workers and healthcare team.

The study presented some limitations such as: resistance to complete the questionnaire by some participants due to its length, unplanned/uninformed shift changes, leading to difficulties in finding research subjects, some discomfort and/or fear of suffering reprisals when answering some

items in the questionnaire.

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RECEIVED: 09/02/24
APPROVED: 02/19/25
PUBLISHED: 03/2025