USE OF INDIVIDUAL PROTECTION EQUIPMENTS BY NURSING IN A HOSPITAL EMERGENCY UNIT

RESUMO


ABSTRACT

Objective: making evident about the use of Personal Protective Equipment for the nursing staff of a Unit of Urgency and Emergency. Method: a descriptive qualitative study with eight nursing professionals. The production of data were collected through participant observation and semi-structured interviews, recorded on audiotape. The interviews were interrupted when the information began to repeat. For analysis, we used the ordering, sorting, and final analysis of the same, resulting in an issue of analysis. The research project was approved by the Research Ethics Committee, Protocol 247/2008. Results: the data analysis resulted in a category: The use of Personal Protective Equipment in nursing view that acts on a Unit of Urgency and Emergency. Conclusion: for various subjects studied, the use of Personal Protective Equipment is related to knowledge of HIV status of the patient. Thus, the observance of safety measures is still incipient; important for the development of education permanent programs to minimizing risks in occupation. Descriptors: Nursing; Protection; Occupational Hazards; Occupational Health.

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RESUMEN

Objetivo: evidenciar como se da a utilización de Equipamientos de Protección Individual por el equipo de Enfermería de una Unidad de Urgencia e Emergencia. Método: estudio descriptivo cualitativo, con ocho profesionales de enfermería. La producción de datos se produjo a través de participante observación y entrevista semi-estructurada, grabada en cinta de audio. Las entrevistas fueron interrompidas cuando la información comenzó a repetirse. Para el análisis, utilizamos el ordenamiento, clasificación y análisis final de la misma, resultando en un tema de análisis. El proyecto de investigación ha obtenido la aprobación por el Comité de Ética de la Investigación, Protocolo 247/2008. Resultados: el análisis de los datos como resultado de una categoría: El uso de Equipamientos de Protección Individual en la óptica del equipo de enfermería que actúa en una Unidad de Urgencia y Emergencia. Conclusión: para varios sujetos estudiados, el uso de Equipamiento de Protección Individual está relacionado al conocimiento de status sorológico del paciente. Asimismo, la observancia de medidas de seguridad aún es incipiente. Importante para el desarrollo de programas permanentes para minimizar riesgos en la actividad profesional. Descritores: Enfermería; Protección; Riesgos Ocupacionales; Salud del Trabajador.
INTRODUCTION

The work in the hospital environment is dynamic, stimulating and heterogeneous, but demands professional extensive knowledge about health situations, mastery of the work process and the risks arising from this. In this context, the practice of nursing professional who works in the emergency care industry, is full of situations potentially interfere with the maintenance of their health and physical integrity, which derive from the particularities of the activity, as well as the industry. This stems from the frequent counted nursing worker with patients with infectious diseases, equipment and/or contaminated materials, products and toxic substances with the potential to trigger diseases and accidents at work.

The nursing professional, is at increased risk of exposure to communicable diseases, mainly involving blood and/or other bodily fluids. This risk increases before the frequent need for invasive procedures, in addition to the wide range of disorders that the patient has hence the need to observe standard precautions by the Ministry of Health, aiming to minimize it. It is recommended that the use of Personal Protective Equipment (PPE) is adopted by all health professionals involved in the care for patients in health care settings, regardless of the condition initially suspected or diagnosed.

All patients treated in a hospital service, particularly in an emergency, although there was no specific symptoms need to be considered potential carriers of diseases and therefore the health professional should make use of precautionary measures to avoid being infected or serve as a vector for disease transmission to other patients or even their families.

One understands how special PPE clothing, gloves, goggles, masks and their use should be incorporated into the routine and daily professional life. Such protective devices constitute basic, necessary and indispensable to prevent the spread of infection in the hospital environment materials, as well as to maintain and protect their physical integrity since, in this environment, there is greater possibility and ease of contracting diseases, by peculiarity of location and function/activity exerted.

According to the Ministry of Labor and Employment, the Regulatory Standard 6 (NR 6), of the Ordinance 3.214/78, is considered Personal Protective Equipment every device or product, used for individual use by the employee, for the protection of risks likely to threaten safety and health at work.

It is a pressing concern for the health of health workers for their constant exposure to occupational hazards, especially with the nursing staff, as this routinely exposed numerous agents with the potential to cause them health problems in their working practices. Still, to be nursing the most exposed category, due to their direct and continuous contact with patients in the disease process. Thus, care for your safety and the use of security measures are in priority.

Given the above, the study aims to:

- Highlighting how does the use of Personal Protective Equipment for the nursing staff of an Urgency and Emergency Unit.

METHOD

This is a descriptive qualitative study conducted with the nursing staff engaged in a Unit of Urgency and Emergency of a hospital sized IV in the Northwest region of Rio Grande do Sul Inclusion criteria were: being part of the nursing staff of the respective unit, be 18 years old, be acting in place for at least six months to be effective and functional framework of the institution.

The study included eight professionals, and the average time working in nursing these and these are not part of the universe of the research subjects, which enabled further verify the ability of the interviewer.

For data analysis we used the sorting, grading and final analysis of the same, resulting in a topic of analysis: The use of Personal Protective Equipment in the view of nursing that acts on a Unit of Urgency and Emergency.

The ethical aspects were observed, as envisaged in the Resolution 196/96 of the National Health Council, which regulates research involving human beings. The research project was reviewed by the Ethics Committee in Research of Regional Northwest University of Rio Grande do Sul, being approved by Opinion Embodied N. 247/2008.

To maintain the anonymity of the subjects, it was decided to name them with the letter "E"
followed by the sequential order of the interviews.

**RESULTS**

Every safely action requires legal, technical and administrative measures to prevent accidents and occupational diseases. This occurs through educational activities, removal of unsafe conditions in the workplace and use of safety devices, the worker, i.e., the implementation of actions in occupational hygiene.

It is considered that the employer, by security staff and worker health, must inform, regulate and institute safer working environments, implement standards and procedures for health and safety as well as quality of life in the workplace. Regarding the implementation of actions at work, must occur in order to protect the physical and psychological integrity of the worker to avoid consequences of acute character, such as injuries from sharps, these situations with the potential to generate occupational diseases including, HIV and hepatitis viral infections. It is up to the employee to make proper use of this equipment in every situation, regardless of knowing the HIV status of the patient.

Such conduct is identified from the reports of the subjects, who claim to make use of PPE in all work situations, because the same equipment is available in the workplace, as follows:

- I seek using PPE in all situations. (E1)
- I always use PPE; we have PPEs available for use. (E2)

Nursing professionals face situations of accidents at work, every day, especially those working in emergency care units, the characteristics of the same. This is gateway of patients with various diseases and often undiagnosed in this sector, which implies the need for professionals who work in that unit does not trivialize the use of the protective clothing.

During the observation made in the emergency department, the research site, it became clear that the nursing staff did not use all PPE required for the development of actions safely, thereby exposing themselves to various agents and risk situations. This fact is also explained by E3 and E4, sequentially.

- I only use gloves and only in some situations. (E3)
- Personal protective gloves and goggles I always use when I deem necessary. (E4)

By the characteristics of nursing work in the emergency room, where it has the potential to generate numerous risks to those who work there, it is necessary the constant use of PPE by all employees. The fact that workers sometimes do not use the safety devices can be an enhancer of exposure and trigger accidents and/or injuries. Still, one of the problems of health care in this, sometimes the workers to use nascent security measures in order to minimize the chances of infection. Biological agents are not liable, solely, occupational, but the conditions or circumstances on which work is performed are favoring the contact, contagion and/or transmission. Thus, the work is a contributory risk factor.

It can be seen in the speeches of the participants, that even available in the workplace means of prevention are not used, as expressed by E5 and E6.

- We have available, but we did not always use. (E5)
- PPEs are available in usable conditions, but it is not always used. (E6)

The legislation on occupational safety exists to protect the worker, but he needs to incorporate measures of self-care. Workers protect themselves only when there are obvious risks, ie visible, because their identification leads to insecurity and fear of being contaminated, which causes the increase in the use of protection occurs.

It is evident that some subjects those participated in the survey do not use PPE as a routine in their daily work, only in cases who knows the patient's diagnosis before or suspected infectious disease evidenced in the fragments of speeches that follow suit.

- […] I got used to mask use in TB cases and glasses in emergencies, accidents. (E1)
- […] In the management of patients on contact with precautions and venous punctures in cases where the patient is HIV positive. (E3)
- [...] Puncture in use only if the patient has hepatitis C, AIDS [...] masks use only when the patient has a diagnosis of TB. (E4)

Most of the time the user accesses the health service, the emergency may not have a known diagnosis, thus linking the provision of safety devices by the knowledge of sero-status is misconduct, in that it generates real exposure and unnecessary worker. This fact is often prompted by several vehicles, including the media. The Social Security emphasizes the increased rates of accidents with the healthcare team in recent years, while the use of safety devices integrates the standard security measures, regardless of the workplace. Likewise, the Ministry of Health warns about exposures and risks of contamination with biological material,
workers of health services, especially those working in the emergency services.

During the period in which was performed the simple observation, it was found that the vast majority of members of the nursing team prioritizes the use of PPE, when he knows or when the patient is cognizant of his diagnosis. This occurs even though available in sufficient quantity, the safety devices.

To some extent, it shows strength of the nursing staff to use them since, in many situations; invasive procedures were performed without the recommended protection. This can be evidenced in the report of E4 when it says not to use gloves for procedures confidence in their technical skills, supporting up on years of experience, perhaps this fact decreases the likelihood of an accident at work. Also, some workers have become used to perform techniques without the use of gloves and claim to have security in his skill, improper posture before inherent risks to such exposure.

 [...] Got used to not wear gloves and punches have security without gloves punching [...]. (E4)

It should be emphasized that the mister protection measure most commonly used by nursing staff at the research site is the coat, but this does not meet the standards of biosecurity, which are: long sleeves, length up to knee height and turtleneck. Another protection used with restraint, are gloves procedures. Already, other equipment recommended by Norm No. 6, based on PPRA-Environmental Risk Prevention Program, which identifies the risks present in the workplace, they are used in any form.

This situation has the potential to generate accidents that could be avoided through preventive programs of hygiene and safety, ie, compliance and implementation of regulatory standards of the Ministry of Labor.

Among the accidents involving subjects who participated in the study, the highest incidence was exposure to sharps, major cause of workplace accidents as speeches following:

After washing a catheter for short barrel to reupholster poked me. (E1)

Poked me with cut and puncture wounds (needle) to make glucose testing. (E2)

Accident with sharp equipment (needle) to conduct a HGT; I was recapping the needle and poked me. (E6)

Of the subjects who suffered an accident at work, when asked if they were making use of PPE, said they did not.

 [...] I was not using gloves. (E1)

The use of gloves is required in every situation when there is contact with patients, as well as preventing exposure to risk, reduces the possibility of cross-infection. The gloves do not prevent sharps accident, but minimize the amount of blood introduced are therefore a mechanical barrier against the likelihood of contamination. The risk control is the reduction or elimination of potential exposure, recognized and valued in the workplace. In this sense, it is necessary to adopt control measures, where possible, noting the proposed standards for basic principles of control technology.

Among the preventive measures in the workplace information, training and continuing education stand out, since, from the knowledge of the exposures to the institution implements measures to limit the possibility of contamination, together with standardization and awareness of workers on the use of appropriate environmental risk protection measures.

From the data obtained from this research can understand the importance of using personal protective equipment by the nursing staff in the workplace. It appears that the results of this study do not differ from other, ie, that the nursing staff did not give enough importance to measures of individual security, uses only when they know the HIV status of the patient, or when they identify a situation of risk evident and after an accident at work and not be making use of individual protection. Also, little value the educational activities developed by the institution.

DISCUSSION

The Personal Protective Equipment is determined by the Ministry of Labor and Employment, to be used whenever the worker in the workplace environmental hazards exist in the collective protection measures, alone, are ineffective. Such a choice is made from the implementation of the Program of Prevention of Environmental Risks - PPRA, ie, through actions of health and safety at work. So, it is necessary to identify, quantify and monitor risks in the workplace and, after we define the most effective protection measures of the risks generated by their working process worker.3

The worker in his workplace can suffer accidents at work and when it does, it is quickly and abruptly, in many cases determines important changes in their life. The working process of emergency nursing requires efficiency and speed 6. This follows

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from the fact that this was a desktop environment unpredictability and uncertainty, which requires knowledge, quick thinking and preparedness in development decision-making process. This implies the constant exposure to various occupational hazards and different, so there is the need to incorporate security measures into their daily work. However, these professionals have proven resilient as the use of protective barriers, underestimating the real presence of risk and the possibility of becoming infected. In this sense, health care workers often experience situations of inappropriate considering how the work is not dangerous, even though scientific evidence reveals the presence of several agents of occupational hazards in the workplace.

In the hospital environment the presence of biological agents is a constant, but the complications arising from exposure can be avoided by means of standard protection measures. However, the authors infer that the biological risk, due to the appearance of the consequences of exposure are not immediate or visible to the naked eye, can foster a dangerous self-neglect, endangering health. For this, safety devices must be in the workplace, with easy access to the employee at the time that this need without quantity control.

Although health professionals have awareness of the existence of risks in the workplace, biosafety standards have not permeate the daily and daily practice with the same intensity, which may be related to the feeling of invulnerability workers. In this context, the proper and correct use of PPE is directly related to the degree of responsibility/awareness of the worker and is a result of the actions that the health team develops with the group. Thus, it is for the same workers emphasize the understanding that any person who accesses the service can potentially be infected.

Security measures at work involve three major aspects: Legal establishing compliance with labor legislation through the implementation of the laws and safety standards; Educational regard to continuous exploitation of workers in industrial and technical spaces, with application knowledge engineering and human behavior for favorable health and safety. However, when the risk is not visible and even quantifiable, such as biological risk, workers sometimes find it difficult to use the means of protection in any procedures.

Another factor related to incipient use of PPE refers to the intense pace of work, linked to the oblivion of the use of protective measures during the performance of the techniques. A study on the frequency of use of PPE contacted in relation to adherence to the use of coat was 93.9% of nursing mask 66.5%, 50.7% and goggles cap of 35.7% industry professionals. In order to reduce the exposure of the nursing worker, this should incorporate the need for use of universal precautionary measures, but their use is closely related to the perception that professionals have about the risks they are exposed, as well as susceptibility to these risks.

Hospitals have many risks related to the various working conditions. Thus, professionals need to adopt a pro-active attitude to risk, as these have the potential to cause health problems for themselves. The limited view of risk may be related to the fact coexist daily with risks, which leads them to trivialize them, show high confidence in their do attitude that hinders the adoption of protective barriers. In contemporary accidents still occur due to factors and/or causes that could be avoided in adopting adequate measures to protect against accidents with biological hazards.

It is evident that the use of protective equipment is generally linked to the symptoms of the patient, or when it is aware that he is a carrier of an infectious disease, so safety measures are not followed as recommended by the Ministry of Labor and employment. In this sense, rules of standard precautions which recommend the use of compulsory measures of barriers in the possibility of contact with blood, secretions and/or body fluids are published, regardless of knowledge of HIV status.

It is noteworthy that the predisposing factors for accidents with the nursing team include inadequate practice of disposal of materials and recapping of needles. Among the different professionals within the healthcare team, the auxiliary/nursing technicians are the most affected by direct contact, most of the time ally representing larger workforce category.

Contact with pathogens from accidents originated by manipulating cut and puncture wounds materials often occurs during the execution of the nursing work and the process of nursing work constitutes the greater risk. Thus, there is the need for workers to be adequately informed about the situation that risks in the development of their work activities, likewise, the procedures to be adopted in cases of emergency.
Actions of continuing education to workers and health professionals should be understood as a joint opportunity, growth and transformation of an important for the preservation of health worker known reality. Thus, the development of educational activities with a view to equip and train information workers becomes essential in view of maintaining the health of the worker as, the worker needs to prioritize the maintenance of their health. In this sense, the success of continuing education is directly linked to institutional support, as well as the participation, involvement and recognition by workers of the risks arising from its praxis.

**FINAL REMARKS**

The implementation of security measures and the use of PPE are in paths to be desired when you want to preserve the health of the nursing worker. To do so, highlight the development of educational programs for the qualification.

It is pertinent to emphasize the importance of information/guidance on the risks inherent to the process of nursing work, in order to reduce occupational exposures. Since it was found that most of the study subjects are aware of the risks, in particular biological, are a constant in the work environment, but that perception and knowledge does not ensure the use of safety devices by nursing staff since they show that use sometimes occurs from the knowledge of serological status of the patient.

The higher incidence of accidents was with sharps as a result of recapping of needles. It was found through participant observation that many professionals surveyed at the time of the accident did not make use of PPE. Likewise, it was observed that the time of practice, coupled with experience in the exhibition contributes to situations of risk to your health.

It is considered important the development of continuing education programs with specific issues of worker health, which may contribute to behavior change, to the extent that the employee is led to reflect on their practice.

**REFERENCES**

Use of individual protection equipments by...


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