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REFLECTIVE ANALYSIS ARTICLE

OCCUPATIONAL RISK MANAGEMENT IN HOSPITAL SERVICES: A REFLECTIVE ANALYSIS

GESTÃO DOS RISCOS OCUPACIONAIS NOS SERVIÇOS HOSPITALARES: UMA ANÁLISE REFLEXIVA

GESTIÓN DE LOS RIESGOS OCUPACIONALES EN LOS SERVICIOS HOSPITALARIOS: UN ANÁLISIS REFLEXIVA

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ABSTRACT

Objective: to reflect on the occupational risks applied to safety management in the hospital environment. ***Method:*** descriptive study, type reflexive analysis, from literature review, accessing the LILACS and MEDLINE databases, Scielo virtual library, *homepages* of the Ministry of Labor and Employment and of the National Sanitary Surveillance Agency, with extended reading on the issue two units. ***Results:*** after the organization of the data, the units found were: "Occupational risk agents in health and mitigation actions", and "Norms relating to health and safety in the hospital environment". After the analysis, the presence of physical, chemical, biological, ergonomic and accident risks was identified. ***Conclusion:*** risks persist and could be mitigated or avoided, through managerial and professional health actions, ensuring the safety of workers, patients and visitors. ***Descriptors***: Safety Management; Occupational Risks; Hospital Services; Nursing.

RESUMO

Objetivo*:** refletir sobre os riscos ocupacionais aplicados à gestão de segurança no ambiente hospitalar. ***Método: estudo descritivo, tipo análise reflexiva, a partir de revisão de literatura, acessando as bases de dados LILACS e MEDLINE, biblioteca virtual Scielo, *homepages* do Ministério do Trabalho e Emprego e da Agência Nacional de Vigilância Sanitária, com leitura ampliada sobre a temática, originando duas unidades. ***Resultados:*** depois da organização dos dados, as unidades encontradas foram <<Os agentes de riscos ocupacionais em saúde e as ações mitigadoras>> e <<As normatizações referentes à segurança e saúde no ambiente hospitalar>>. Após a análise, identificou-se a permanência da ocorrência dos riscos físicos, químicos, biológicos, ergonômicos e de acidentes. ***Conclusão:*** os riscos persistem e poderiam ser mitigados ou evitados, por meio de ações gerenciais e profissionais da saúde, garantindo a segurança dos trabalhadores, pacientes e visitantes. ***Descritores:*** Gestão da Segurança; Riscos Ocupacionais; Serviços Hospitalares; Enfermagem.

RESUMEN

Objetivo: reflexionar sobre los riesgos ocupacionales aplicados a la gestión de seguridad en el ambiente hospitalario. ***Método:*** estudio descriptivo, tipo un análisis reflexivo, a partir de revisión de literatura, accediendo a las bases de datos LILACS y MEDLINE, biblioteca virtual Scielo, páginas web del Ministerio del Trabajo y Enpleo y de la Agencia Nacional de Vigilancia Sanitaria, con lectura ampliada sobre la temática, dando lugar a dos unidades. ***Resultados:*** después de la organización de los datos las unidades encontradas fueron << Los agentes de riesgos ocupacionales en salud y las acciones mitigadoras >> y << Las normalizaciones referentes a la seguridad y salud en el ambiente hospitalario >>. Después del análisis se identificó la permanencia de la ocurrencia de los riesgos físicos, químicos, biológicos, ergonómicos y de accidentes. ***Conclusión:*** los riesgos persisten y podrían ser mitigados o evitados por medio de acciones gerenciales y profesionales de la salud, garantizando la seguridad de los trabajadores, pacientes y visitantes. ***Descriptores***: Gestión de la Seguridad; Riesgos Laborales; Servicios Hospitalarios; Enfermería.

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INTRODUCTION

Accidents at work in hospital institutions, in the day-to-day care practice, represent a frequent problem due to the risks related to the physical integrity of the workers in relation to the lack of safety and the lack of quality. These health professionals are susceptible to significant injuries and occupational diseases which, are directly related to the activities developed in their work environment, which also involves patients, visitors, equipment and facilities, where many of these accidents cause various health damages and/or injuries.[1]

Safety and quality issues are not unique to professionals who provide direct care, and the patient is also involved in prevention and care during routine procedures and attitudes. Risk management in hospital settings can be defined as a set of actions that, although not guaranteeing any adverse events, try to minimize the possibility of occurrences through possible investments.[1]

By introducing a risk management strategy, guided with the perspective of a safe work environment, it should be focused on risk control and daily learning through effectiveness in quality services in health care.

From the incorporation of new technologies and the scientific advance, the hospital managers faced with the denominated occupational risks and the agents of risk in the work environments, and to new situations, which also are producers of dangers and risks[2]. Thus, there are potential risks to which health professionals, especially the Nursing team, may be exposed, depending on the specific activity they develop in their daily lives, among them the biological, physical, chemical and accident risk, the workloads, the psychic condition, the existing wear, among other adverse situations.[3]

Returning to history, the first Brazilian hospital, to date, was founded in 1543 in Santos, with the initiative of Brás Cubas, used as a retreat for indigent patients, but became the space of practice and teaching of Medicine before Creation of the country's first Medical school. It took the name of Santa Casa de Misericórdia where the colonists, natives and slaves, the nobility and the bosses, workers, employees and unemployed were attended.[2]

From this perspective, it was initially up to the Jesuits, to take care of the sick, working as doctors, pharmacists and nurses. All other hospitals at that time, especially in Europe, they were subordinate to the Catholic Church, and it was not until the eighteenth century, especially in Paris, London and Rome, that civil authorities began to build and administer hospitals, charitable societies maintained by the predominant classes.[2]

Due to new conceptual and organizational changes, this new hospital is no longer just a place of shelter or asylum and is now considered the place where patients can be followed, treated and healed. In the nineteenth and twentieth centuries, with the great development of research in the biological sciences, paradigms that explain health and disease are modified, producing important changes in these institutions, with the introduction of medicalization, assistance, antisepsis, teaching and Nursing renewal, which acquires a status of profession.[4]

Already under the effects of capitalism, the hospital becomes an establishment where the service provided should generate profit and, therefore, needed to be a dynamic, productive space, where the domain of science and technology was developed. At this time, it is known that infectious diseases have cause, agent and treatment, and can be combated outside the hospital environment in order to reduce costs. Advances in Pharmacology and technologies, with diagnostic equipment, innovative surgical techniques and differentiated therapeutic procedures, ratify the progress of modern science, but without any manifestation as to the health of the worker and the potentiality of occurrence of risks in the hospital environment. [5]

In this regard, with the elaboration of decrees, ordinances and norms referring to the worker's health and safety in Brazilian legislation, there is a clear concern about working environments and working conditions in health services, in order to generate healthier work processes , Cooperating to improve the quality of life, personal and social fulfillment of Nursing workers.[6]

Since then, attention has focused on biological risks, when norms related to the issue of safety in the work environment have been established, and, in 1990, the

Organic Health Law (8.080 / 90) was in force, which provides for the field of action of the Unified Health System (UHS) and which highlights the various activities carried out by health professionals, emphasizing that, through epidemiological and health surveillance actions, the health of workers should be promoted and protected, as well as recover and rehabilitate those who are subjected to the risks and adverse effects of working conditions.[7]

Nowadays, with the use of more sophisticated and more complex resources introduced in hospitals, that involve safety, multiprofessional treatment is required for both technical and administrative, economic and operational decision making, with the special participation of managers And directors, in order to assess the problem in the workplace.[2]

Based on the experience of providing advice in hospital units, questions about occupational risk exposure became a moment of reflection and anxiety for solutions, arising in this context, the questioning regarding the perception of Nursing workers in relation to occupational risks to which they are exposed in a habitual and permanent way.

By creating an appendix, the worker's health object can be defined as the health process vs. the sickness of the worker groups in relation to the work they perform, conceiving the commitment and conception of this process, how and why it occurs, and the magnification of the alternatives that lead to the transformation towards the absorption of knowledge by the workers, giving a human dimension in the work, in perspective of reaching its objectives.[8]

Regarding the responsibility of managers, they should pay special attention to legal obligations under labor legislation, through appropriate training and retraining programs, the use of Personal Protective Equipment (PPE), the existence of a suitable group For dealing with claims such as fire, lack of electricity, flooding, how to act in the emergency plan, and whether patients and visitors receive some sort of safety guidance during their visits.[2]

Faced with this reality, we know the relevance of studies with emphasis on occupational exposure to occupational hazards, since these can be controlled and even preventable in work environments, through safety management tools and techniques that favor accident prevention, which, it is recommended to be discussed in a collective forum, covering the various subjects involved in assistance and care for injured professionals.[9-10]

In this way, this article proposes to reflect on the occupational hazards applied to the safety management in the hospital environment and on the mitigating measures related to health professionals, with special attention to the Nursing team, due to the long stay in caregiving With patients, keeping in mind these professionals who are often, exposed to work overload, due to the reduced number of professionals that are not compatible with the percentage of patients or with the complexity of health care provided.

OBJECTIVE

- To reflect on the occurrence of occupational hazards applied to safety management in the hospital environment and mitigating measures related to health professionals, with special attention to the Nursing team.

MÉTHOD

This was a descriptive study, which was based on a review of the literature, in books and scientific articles available in Portuguese, English and Spanish, in the databases, LILACS and MEDLINE, Scielo virtual library, in addition to the Brazilian legislation of the Ministry of Labor and Employment (MTE) and National Agency of Sanitary Surveillance (ANVISA).

After the selection of the material, the data were grouped from the analysis, giving rise to two thematic units.<< **The agents of occupational risks in health and mitigating actions** >> and << **Norms concerning safety and health in the hospital environment** >>.

RESULTS AND DISCUSSION

♦ The agents of occupational risks in health and mitigating actions

After analyzing the relevant legislation, it was possible to verify that, in the various hospital services, there are five occupational risk classes, with the presence of physical, chemical, biological, ergonomic and accident agents, [3] inherent to the activities developed by Nursing professionals enrolled in patient care.[10]

Regarding the physical risk, the concern regarding the treatment with radiotherapy during the use of ionizing radiation X, beta

and gamma was observed, since they generate cellular alterations, with hereditary and somatic effects11. *Laser* non-ionizing radiation produces heat in human tissues, causing burns to the skin and eyes, during the use of electro-surgic equipment for cutting and coagulation, when improperly used.[2]

The control of these risk agents can be accomplished through mitigating actions such as physical barriers, radiative source distance, exposure time, environmental and personnel monitoring equipment, specific PPE, grounding of electrical equipment, preventive maintenance, training of all Professionals involved directly or indirectly in these activities[2]. Another way to implement an efficient security management for incidents or accidents caused by these risk agents is to apply the framework in the Regulatory Norms (RN) of the Ministry of Labor and Employment (MLE).[10]

The risks inherent to ionizing radiation in the hospital environment are related to radiodiagnostic and radiotherapy areas. They are present in other areas where the Nursing team is continuously operating, such as surgical centers and intensive care units, since many patients require real-time imaging and diagnosis.[2]

The chemical risk is directly linked to the products and chemical substances, reaching the organism through various absorption pathways, besides the manipulation of chemotherapeutic drugs without the proper individual protection, and can cause diverse effects.[11]

Because of the risk they pose to Nursing professionals, special attention should be paid to the safety of using certain chemical substances, such as: ammonium quaternaries, polymer biguanide, glucoprotamine, peracetic acid, glutaraldehyde and formaldehyde, among others. Cleaning, disinfection and sterilization of surgical equipment and materials such as scalpels, tweezers, retractors, glass ampoules, catheters, among others. Likewise, attention is focused on the use of medicinal gases such as oxygen, nitrogen, ethylene oxide and dilute mixtures. Also included are drug solutions such as chemotherapy drugs, psychotropic drugs, anesthetic medicine gases, and others.[2]

Mitigating actions and the fundamental control for the treatment of chemical risk refer to the use of the appropriate EPI[12] for each chemical, the identification, through the labeling, as well as being able to receive, store, handle, fractionate, transport and discard these substances properly in the appropriate environment, maintain them in a ventilated environment, enable direct and indirect involvement of emergency procedures and their physical and chemical properties. It is fundamental that there are behavioral changes aimed at the prevention of accidents with chemical agents and investments in hospital management systems, as recommended by NR-32, of the MLE in its item 32.3.[11]

Biological risks comprise one of the most significant classes in a hospital environment, which are inherent to Nursing activities, mainly due to the contamination of patients and health workers due to direct contact in intensive care assistance, frequency of procedures performed manually or through use of notably hazardous inputs. The most evidenced were the procedures of aspiration of orotracheal tube, handling of excreta / secretions, preparation of medication, collection of arterial blood in contact with the skin, mucosa and injuries by piercing-cutting materials.[1,2;11,12]

Accident control and prevention actions can be considered as the prior qualification of all professionals on the knowledge of the factors associated with biological risk agents and their exposure within the hospital environment in order to establish safe strategies during the work activities, giving continuity to the act of caring without being affected by infectious diseases, as well as by other diseases. Another mitigating aspect is the use of the necessary and appropriate PPE for each activity with respect to the risks, remembering that they can only be used in the work environments and for the purpose for which they are intended.[13-14,15]

Regarding the ergonomic risks, the most evidenced also reach the Nursing team and are related to the maintenance of inadequate posture and/or forced for a prolonged period for the development of procedures, frequency in the repetition of desynchronized movements, stress, physical exertion with loads associated with the intensity, and may contribute to the occurrence of Repetitive Strain Injuries (RSI) and Work-Related Osteomuscular Disorders (WROD) .[13]

It is possible to orient, as safety recommendations, the implantation of the work gymnastics, through the scheduling and the distribution of the professionals that are in the work place, the adaptation of the work environments, according to the anthropometry of the Brazilian worker, trying, in this way, to mitigate the possible injuries and future disturbances .

When dealing with stress, fatigue and psychic suffering in the development of activities for double or triple working hours, sleep deprivation and disturbances, fatigue, overload of activities, accumulation of functions and responsibilities, coupled with the frenetic work rhythm of Nursing, such facts contribute significantly to psychological wear and tear in the hospital environment. The consequences are irritability, anxiety, sadness, insomnia, depression, frustration, suffering, use of anxiolytics and other drugs, which can lead to Burnout Syndrome.[16-8]

Physical attacks such as hypertension, tachycardia and changes in menstrual flow also occur. The inadequacy of conditions in the work environment, the scarcity of human and material resources, as well as the accumulation of negative events from patients, negatively influence the health of these workers.[13-6]

As regards the psychosocial aspects, actions are recommended with the greater participation of managers in the process of caring for patients and workers, greater investment in infrastructure, humanization and valorization of professionals' work[18,19]. Reducing work hours, increasing staff numbers, better remuneration and job security minimize the negative effects on professionals and, when necessary, individualized or group psychological monitoring is essential. [16]

The risks of accidents are diverse and the main risk agent is related to sharps such as needles and scalpels and also those related to the handling of secretion vials, test tubes, catheters and probes, and dialyzer membrane rupture[8,9]. Other accidents are mentioned such as slipping or falling of the worker due to the wet floor or in the displacement of the patient for the use of the toilets and during the bath, or due to the agitation in the bed. Transporting on stretchers can lead to some kind of accident when traveling out of the center of gravity due to improper sizing. [20]

Another accident factor is the non-use or even incorrect use of PPE in the risk areas or activities in the hospital environment, causing the workers to perform their tasks without adequate protection, which most of the time, these equipments are not available or lack of awareness of the health team about the importance of its use.

Biosafety actions in Nursing work are essential and include the use of PPE, since they contribute to the prevention and control of infections, thus ensuring worker health and safety, thus, minimizing exposure to occupational diseases .

MLE's NR-6 considers PPE any device or product, for individual use used by the worker, to protect risks that may threaten safety and health at work[14]. Nursing should be aware of the need to use protective devices such as gloves, surgical masks, respiratory protection, apron and cap, shoes and goggles according to the complexity of the care or procedure to be performed, since they certain parts of the body against micro-organisms.

It is necessary that the NR-32 be complied with by the hospital administration, with the participation and support of the workers, especially in relation to the requirement of the institutions to make the specific PPE available for each agent of risk, in order to be used by the professionals , advising on the appropriate and safe way of its use, having as a premise to act in a preventive way and to mitigate the possible injuries and / or their injuries.

There are other additional risk factors that interfere with the health of the worker in the workplace, such as improper air conditioning in the work environment, which requires the adaptation of the thermal regulation of the human body, and it is necessary that the body work folded to suit body temperature To the physiological ideal, exposure to sound pressure levels for a prolonged period of time, which may lead to sleep disorders, possible irreversible hearing loss, which are often not immediately perceived, impairing communication and interfering with relationships and mental rest.

After analyzing the literature and presenting the results on the subject, it is observed that, in the opinion of some authors, there is little perception of the risks by health professionals and other workers to the various risk-generating

agents and sources. In addition, the culture of the managers Hospital care is limited on biosafety in health care processes, together with the presence of deficit facilities and the lack of use of the means of individual protection by the employees, making inadequate safety practices systematized. It is the understanding of the authors that there is still much to be learned about biosafety principles, but that everyone has an awareness in mind about the concept of risk in these activities.[9]

Other important aspects are related to investments in the areas of acquisition and use of new technologies, with the need for specific training of professionals, evaluation of outsourced providers if they are able to provide maintenance services in hospital equipment and facilities in accordance with current safety standards, and whether meetings with the health community are held periodically, at least monthly, to discuss safety issues in your unit.[2]

♦ Norms concerning safety and health in the hospital environment.

Occupational safety and health are determined by regulations of the Ministry of Labor and Employment, through the guidelines of the Regulatory Norms, which provide for the duties and rights of the employer and employees to ensure safe and healthy work, preventing the occurrence of diseases and Occupational accidents, since non-compliance with legal and regulatory provisions will result in both penalties provided by law. [10] Therefore, it must be established that all managers are obliged to act in articulation with the provisions of the NRs pertinent to the implementation Occupational Health Control Program (OHCP), as set forth in NR-7, in order to preserve the health and integrity of professionals, through anticipation, recognition, evaluation and control of possible occurrences of diseases related to environmental risks, involving class of workers.[22]

NR-5 addresses the establishment of the Internal Accident Prevention Commission (IAPC) in establishments and should be composed of professional representatives of the employer and employees. Its objective is to prevent accidents and diseases arising from work, making it compatible with the preservation of life and prevention of worker health.[23]

We can define what is an PPE through the NR-6, being any mechanism or product of individual use used by the worker, which is intended for protection against risks capable of threatening safety and health at work, to be selected and Used in accordance with the peculiarities of each activity in relation to its risks.[14]

According to NR-6, it is the responsibility of the employer to provide all employees, with the appropriate PPE for free, in perfect condition and operation, to require proper use, to guide and train the worker on the guard and maintenance, to replace immediately when damaged or lost, Responsible for hygiene and periodic maintenance, registering the individual receipt and receiving the same, and it is the responsibility of the employee to use it for what is intended, being responsible for its custody and conservation, immediately notifying the employer any changes that make it inappropriate for Compliance with the employer's deliberations on appropriate use.[14]

The Specialized Service in Safety Engineering and Occupational Medicine (SSSEOM) is related to the NR-4, and has the attributions of applying safety engineering and occupational health knowledge to all its workers and when all Means of eliminating the risk and / or continuing to determine the use of PPE by employees. Other responsibilities of SSSEOM are to collaborate in the projects and implementation of new physical and technological facilities of the company, being technically responsible for guiding and complying with the norms applicable to activities performed related to risks.[24]

SSSEOM should maintain a permanent relationship and provide technical support to CIPA through awareness-raising, education and orientation of workers to prevent accidents at work and occupational diseases, as well as assist them in the preparation of the Environmental Risk Map, Elucidating and making employers aware of generating investments in preventive actions to combat occupational accidents and diseases.

NR-9 establishes the Environmental Risk Prevention Program (ERPP), which is an integral part of a company's broader initiatives in the field of preservation of the health and physical integrity of workers, and should be articulated to the IAPC through anticipation , recognition, assessment and exposure to risks, monitoring, and implementation of

measures to control existing or potential environmental risks in the work environment, taking into account, the protection of the environment and natural resources.[25]

The ergonomic risks mentioned in NR-17 should be recognized and recorded in the ergonomic analysis, which establishes parameters to adapt working conditions to the psychophysiological characteristics of workers, providing maximum comfort, safety and efficient performance. Working conditions include activities related to the lifting, transport and unloading of weight, the type of furniture, the equipment used, the environmental conditions of the workplace and the organization of work itself.[26]

The NR-24 deals with Sanitary Conditions and Comfort in Workplaces and, although it does not refer to the health environment, they address in general aspects those related to sanitary installations, levels of lighting, flooring and floors, ventilation, changing rooms, Hygiene and comfort during meals, among others.[27]

The standard covering Occupational Safety and Health in Health Services is NR-32, which determines the guidelines for the implementation of measures to protect the health and safety of workers engaged in health promotion and health care activities in general. It establishes the risk classification of biological agents and indicates the guidelines for the preparation of the Plan for the Prevention of Risks of Accidents with Sharpening Materials, made up of a multidisciplinary management committee.[11]

It also gives legal support to health workers, Portaria n. 2616, of May 12, 1998, which deals with the standards for the implementation of the Hospital Infection Control Program (HICP), which is a set of actions developed, defined and systematized, aiming at the maximum acceptable reduction of the incidence and worsening of hospital infections.[28]

Consequently, as recommended in Ordinance no. 21016, the Hospital Infection Control Committee (HICC), is the advisory body to the maximum authority of the health institution that performs the hospital infection control actions, which allows for the prompt recognition of outbreaks of infection and determines preventive measures and infection control in any health setting affecting patients and professionals[28].

In hospitals, the main sources of infection are linked to the environment as a whole and to jobs, personnel, equipment, materials, means of transport, poor performance of working techniques and the indiscriminate use of antibiotics.

Aware of all normative regulations, managers are obliged to assume their responsibility for the worker's safety and well-being, to maintain a permanent education program to guarantee the quality and safe attendance of patients, the suppression of avoidable errors and the protection of professionals different services in the hospital environment. Professionals cannot be exempt from their responsibility, but they must receive training in order to recognize the forms of illness related to the work activities developed in health institutions, so that they can identify the causes and effects on their physical conditions and, especially, use the necessary preventive measures.

It is evidenced the difficult working conditions of the nurses in the hospitals, considered improper due to the specificities and the unhealthy environments and inherent to the activities performed, due to the fact of factors such as the high level of physical and emotional exhaustion, the low salaries, the desprestígio professional and environmental conditions of the nurse, and when associated directly impact the quality of patient care.

Thus, once all professionals and managers, are aware of their responsibilities, they must recognize and immediately implement existing prevention and control measures on risks, both aware that the damages that affect health professionals have a high institutional cost.

CONCLUSION

In spite of numerous efforts being made by the health team in the hospital, the persistence of the occurrence of risks and damages requires an expansion of studies in this reality, considering their severity. Inadequate working conditions disfavor the health of Nursing workers and patient care, making it imperative for employees and managers to discuss safe ergonomic conditions in the workplace in order to make the work process healthy.

It is necessary to humanize and value the work of the health professional, in order to

obtain positive results in the care of the patients, but, this requires special attention, on the part of the hospital managers. It is also essential to adopt permanent education strategies that orient and provide scientific and technological base to health professionals, making organic relationships between teaching and the actions developed in the hospital services.

Of course, managers, SSSEOM and HICC are part of this process, aiming at the welfare of workers, patients and visitors. It is hoped that emphasis will be placed on the peculiarity of this study through other scientific approaches, based on an interdisciplinary view, in which management, risk recognition and the application of preventive measures, focusing on worker safety and health, bring improvement in quality of work and life of nursing professionals.

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