180 - OCCUPATIONAL RISKS IN INTENSIVE CARE UNIT: LITERATURE REVIEW

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INTRODUCTION

The Regulatory Norm (NR) 9 of the Ministry of Labor and Employment (MTE) classifies the occupational hazards in physical, chemical, biological, ergonomic and of accidents. For physical agents defined as any form of energy to which workers may be exposed, for example, noise, temperature extremes such as heat, cold, humidity, vibration, ionizing radiation and non ionizing radiation and abnormal pressures. According to NR 9, the chemical agents are all substances or composite products, such as gas, vapor, fog, haze, smoke and dust that can penetrate the body through breathing, in contact with skin or if swallowed in case of accident (MORAES, 2008).

The workers the area of health is a professional category at high risk for accidents. These workers, concern about the occupational risks emerged mainly from of epidemic of HIV / AIDS in the 1980s, but the other occupational hazards are also frequent in patient care, especially those hospitalized in intensive care units (ICU) where they are performed invasive procedures in critically ill patients and with various pathologies(NISHIDE; BENATTI, 2004).

The ICU's are places where critically ill patients, that still have a favorable prognosis for living are hospitalized to, though need the technical and human resources expertise for recovery, an environment where they are used sophisticated techniques and procedures to treat diseases with risk potentially life (OLIVEIRA, 2002).

Within this context, it recognizes the complexity of the area of Occupational Health, bringing the need for research, commitment to training, studies in the area, especially actions by health policies that seek health care (MENDES; DIAS, 1999).

Of this problem and the need to know more about this, ask: What are the characteristics of scientific studies on occupational hazards in the ICU in the databases of the Virtual Health Library / Regional Library of Medicine (BVS / BIREME) and the Medical Journal (PUBMED), for the year, country, type and availability of publication, language, type of study and approach and subject category?

Seeking the answer to that question, emerged the following objective: to identify the characteristics of scientific studies on occupational hazards in the ICU in the databases of the Virtual Health Library / Regional Library of Medicine (BVS / BIREME) and the Medical Journal (PUBMED) for the year, country, type and availability of publication, language, type of study and approach and subject category.

METHODS

This is a search literature on the scientific production of occupational risks in professional Intensive Care Unit. For Marconi and Lakatos (2003), this type of research aims to put the researcher into direct contact with everything that was written or said about a certain subject. This makes it possible take a new approach or theme, reaching fresh conclusions.

The literature review concerns the retrospective data available in the Virtual Health Library (VHL), inserted in the Regional Library of Medicine (BIREME), specifically in the databases of the Latin American and Caribbean Health Sciences (LILACS), International Literature in Health Sciences (MEDLINE), Scientific Electronic Library Online (SciELO) and Base of Nursing (BDENF) and the Medical Publications (PUBMED). The descriptors used for data collection were "occupational hazards" and "intensive care unit," according to the classification of the descriptors in the Health Sciences (DECS).

The criteria for inclusion of work for this review were studies on the subject, in Portuguese, English and Spanish, available in full text or abstract. While the criteria for exclusion have focused for the studies that did not responded to questions or to be present in more than one database searched.

During the gathering of information held electronically, in August 2009, he met a total of 22 papers including 18 in LILACS, BDENF 2 in and 2 in PUBMED. In the other databases - MEDLINE and SCIELO - there are no studies that fit the criteria for inclusion.

To analyze the data we have used descriptive statistics and to analyze the data we have used descriptive statistics and presentation in tables.

RESULTS AND DISCUSSION

To better present the results found from systematize the findings using the following order: year, country, type and availability of publication, language, and study type approach, subject category and journals / institution linked to the studies.

The year 2004 stands out in the publications on occupational risks in the intensive care unit, with 18.1% and 13.6% in LILACS, 4.5% in PUBMED,then come the years 2000 to 2006, both with 13.6% in total. It is worth noting that until the month of August 2009, there was no research on the subject in the databases searched.

The studies published in Brazil were the majority (77.2%) and 63.6% in LILACS, BDENF at 9.1% and 4.5% in PUBMED. We also highlight the publications in other Latin countries like Chile and Argentina reached 4.5% and 13.6% respectively.

TABLE 01 - DISTRIBUTION OF THE RESEARCH ON OCCUPATIONAL RISKS IN ICU IN DATABASES OF LILACS, BDENF PUBMED AND BY TYPE OF PUBLICATION AND DISPONIBLE, LANGUAGE, DESIGN AND APPROACH. Natal, RN, 2009.

VARIABLES	LILACS		BDENF		PUBMED		TOTAL	
	N	%	N	%	N	%	N	%
Publication type								
Artigo cientifico	12	54,5	1	4,5	2	9,1	15	68,2
Dissertation	6	27,3	1	4,5	0	0,0	7	31,8
Publication Availability								
Summary	13	59,1	2	9,1	1	4,5	16	72,7
Full	5	22,7	0	0,0	1	4,5	6	27,3
Language								
Portuguese	14	63,6	2	9,1	1	4,5	17	77,3
Spanish	4	18,2	0	0,0	0	0,0	4	18,2
English	0	0,0	0	0,0	1	4,5	1	4,5
Type of study								
Descriptive study	14	63,6	2	9,1	2	9,1	18	81,8
Case Study	2	9,1	0	0,0	0	0,0	2	9,1
Theoretical review	1	4,5	0	0,0	0	0,0	1	4,5
Clinical	1	4,5	0	0,0	0	0,0	1	4,5
Approach								
Qualitative	13	59,1	2	9,1	1	4,5	16	72,7
Quantitative	5	22,7	0	0,0	1	4,5	6	27,3
Total	**18**	**81,8**	**2**	**9,1**	**2**	**9,1**	**22**	**100,0**

In Table 01, the predominant type of publication been scientific paper (68.2%), available in summary form (72.7%), in Portuguese (77.3%), using descriptive studies (81.8%) and qualitative approach (72.7%).

The type of study, Hart and Bervian (1996) report that a descriptive research is characterized by observing, record, analyze, and correlate events or phenomena (variables) without manipulating them, making accurate descriptions of the situation and finding the links between the elements of research.

Already the case studies are characterized by being an analysis of a subject considered individually. Sometimes we can study a small group of subjects as a whole. In any case observe the characteristics of an individual unit, such as a subject, a class, school or community. The goal is to study and thorough evaluation of the phenomena that constitute the life cycle of the unit in order to establish generalizations about the population to which it belongs (BISQUERA, 1989).

The qualitative and quantitative research are distinguished not only by the scheme relevant to them, but especially by way of approaching the problem. Some authors do not distinguish clearly qualitative and quantitative methods, because they understand that quantitative research is also to some extent, qualitative (RICHARDSON et al, 1999).

The qualitative approach is based on the existence of a dynamic relationship between the real world and the subject, a living interdependence between subject and object, an inseparable link between the objective world and the subjectivity of the subject (CHIZZOTTI, 1995).

TABLE 02 - DISTRIBUTION OF THE RESEARCH ON OCCUPATIONAL RISKS IN ICU IN DATABASES OF LILACS, BDENF PUBMED AND SECOND CATEGORY THEMES. Natal, RN, 2009.

Variables	LILACS		BDENF		PUBMED		TOTAL	
	N	%	N	%	N	%	N	%
Topic category								
Nursing staff	9	40,9	1	4,5	2	9,1	12	54,5
Types of occupational hazards	5	22,7	0	0,0	0	0,0	5	22,7
Health education	2	9,1	1	4,5	0	0,0	3	13,6
Working conditions	1	4,5	0	0,0	0	0,0	1	4,5
Accidents	1	4,5	0	0,0	0	0,0	1	4,5
Total	**18**	**81,8**	**2**	**9,1**	**2**	**9,1**	**22**	**100,0**

The themes most prevalent in the survey were occupational hazards related to the ICU nursing staff (54.5%), the types of risks (22.7%) and health education (13.6%).

With respect to occupational exposure to various types of risks, Farias, Zeitoune and Mauro (2005) refer to the attitude of nurses on risk is that these are inevitable, however, know what risks are preventable.

Farias, Zeitoune and Mauro (2005) also emphasizes that knowing the risks is critical to the development of mechanisms for control and protection, aiming to promote their own health and other workers.

Stressful situations and other consequences biopsicofisiológicas which professionals are subject to the ICU are triggered by factors such as work environment, work overload, interpersonal relations, night work, length of service (intrinsic) and personal circumstances and personality characteristics (extrinsic) , according to a study that took into account the problem among Brazilian nurses from 1982 to 2001(COUTRIN; FREUA; GUIMARÃES, 2003).

Outros mecanismos questão de ressaltar a organização do trabalho, especialmente em um ambiente com condições precárias de trabalho, o ruído ambiente, as relações conflitantes e as exigências do trabalho (SANTOS; OLIVEIRA; MOREIRA, 2006).

The importance of identifying these stress agents, particularly in an approach to health education and preventive is to prospects for a safe working environment, which can generate motivation and reduce the risks to which the group is exposed (GOMES, LUNARDI, ERDMANN, 2006).

CONCLUSIONS

From the literature review in this study it was concluded that the year 2004 stood out publications on occupational risks in the intensive care unit, followed by the years 2000 and 2006. Noting that until the month of August 2009, there was no research on the subject in the databases searched.

The studies published in Brazil were the majority, stands also publications in other Latin countries like Chile and Argentina. Regarding the type of publication was scientific article, available in summary form, in Portuguese, using descriptive studies and qualitative approach.

The themes most prevalent in the survey were the nursing staff, the types of risks and health education. And for of the journal / institution is linked to the State University of Rio de Janeiro, Latin American Journal of Nursing, the Journal of Nursing of UERJ and Intensive Care Medicine in Buenos Aires. Emphasizing that most journals or institutions that have published / research developed in Brazil and are located in major centers throughout the country, like Rio de Janeiro and Sao Paulo.

So, we focus on the importance of continuing education for staff regarding precautionary measures against biological agents, physical and chemical reformulation of policies for the prevention of occupational risks, ongoing assessment of health

workers, hospital and development of map risks are part of an intervention strategy for reducing occupational risks in the ICU.

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OCCUPATIONAL RISKS IN INTENSIVE CARE UNIT: LITERATURE REVIEW

In the ICU are primordial resources that provide safety for patients and staff under normal and emergency conditions, so studies with the objective knowledge of occupational hazards and use of personal protective equipment among these workers are present. Thus, the objective of this study is to identify the characteristics of scientific studies on occupational hazards in the ICU in the databases of VHL / Center and the Medical Journal (PUBMED), for the year, country, type and availability of publication, language, type study and approach, topic category. This is a literature review, held electronically, in August/2009 That way, he met a total of 22 papers including 18 in LILACS, BDENF 2 in and 2 in PUBMED. Of these, the majority of studies published in 2004 (18.1%),in Brazil (77.2%), a scientific article (68.2%), available in summary form (72.7%), Portuguese (77 , 3%), using descriptive studies (81.8%) and qualitative (72.7%). In the themes highlighted in the nursing staff (54.5%), the types of risks (22.7%) and health education (13.6%). In study we focus on the importance of continuing education for staff regarding precautionary measures against biological agents, physical and chemical reformulation of policies for the prevention of occupational risks, ongoing assessment of health workers, hospital and development of risk map are part of an intervention strategy for reducing occupational risks in the ICU.

KEYWORDS: OCCUPATIONAL RISK, INTENSIVE CARE UNIT, NURSING, PUBLICATIONS.

RISQUES PROFESSIONNELS DANS L'UNITÉ DE SOINS INTENSIFS: REVUE DE LA LITTÉRATURE

À l'USI ressources sont critiques qui garantissent la sécurité des patients et du personnel au titre d'études des conditions normales et d'urgence, donc avec la connaissance objective des risques professionnels et l'utilisation des équipements de protection individuelle parmi ces travailleurs sont présents. Ainsi, l'objectif de cette étude est d'identifier les caractéristiques des études scientifiques sur les risques professionnels en soins intensifs dans les bases de VHL / Centre et le Médical Journal (PubMed), pour l'année, pays, type et la disponibilité de la publication, langue, type l'étude et l'approche, la catégorie du sujet. Il s'agit d'une revue de la littérature, qui s'est tenue sous forme électronique, August/2009 De cette façon, il a rencontré un total de 22 documents dont 18 en LILACS, BDENF 2 et 2 dans PubMed. Parmi ces derniers, la majorité des études publiées en 2004 (18,1%), Brésil (77,2%), un article scientifique (68,2%), disponible sous forme de résumé (72,7%), les Portugais (77 , 3%), en utilisant des études descriptives (81,8%) et qualitatives (72,7%). Dans les thèmes mis en évidence dans le personnel soignant (54,5%), les types de risques (22,7%) et éducation à la santé (13,6%). Avant cette étude, nous avons mis l'accent sur l'importance de l'éducation permanente pour le personnel concernant les mesures de précaution contre les agents biologiques, physiques et chimiques de la reformulation des politiques de prévention des risques professionnels, évaluation permanente des agents de santé, hôpital et le développement de carte des risques font partie d'une stratégie d'intervention pour réduire les risques professionnels dans l'USI.

MOTS-CLÉS: RISQUES PROFESSIONNELS; L'UNITÉ DE SOINS INTENSIFS; PUBLICATIONS, SOINS INFIRMIERS.

RIESGOS LABORALES EN LA UNIDAD DE CUIDADOS INTENSIVOS: REVISIÓN DE LA LITERATURA

En la UCI son los recursos críticos que ofrecen seguridad para los pacientes y el personal en los estudios normales y de emergencia, así que con el conocimiento objetivo de los riesgos laborales y uso de equipo de protección personal entre estos trabajadores están presentes. Así, el objetivo de este estudio es identificar las características de los estudios científicos sobre los riesgos profesionales en la UCI en las bases de datos de la BVS / BIREME y PUBMED, cuanto el año, país, tipo y disponibilidad de la publicación, idioma, tipo de de estudio y enfoque de la categoría tema. Esta es una revisión de la literatura, en soporte

informático, en agosto/2009, de esta manera, se encontró un total de 22 trabajos, siendo 18 en LILACS, 2 en BDENF y 2 en PUBMED. De estos, la mayoría de los estudios publicados en 2004 (18,1%), Brasil (77,2%), un artículo científico (68,2%), disponible en forma de resumen (72,7%), portugueses (77,3%), utilizando los estudios descriptivos (81,8%) y cualitativos (72,7%). En los temas destacados en el personal de enfermería (54,5%), los tipos de riesgos (22,7%) y educación para la salud (13,6%). Con este estudio nos hemos centrado en la importancia de la educación continua del personal respecto de las medidas cautelares contra los agentes biológicos, físicos y químicos de reformulación de las políticas para la prevención de riesgos laborales, evaluación continua de los trabajadores de salud, hospital y el desarrollo del Mapa de Riesgos son parte de una estrategia de intervención para la reducción de los riesgos profesionales en la UCI.

PALABRAS CLAVE: riesgos laborales, unidad de cuidados intensivos, enfermería, publicaciones.

RISCOS OCUPACIONAIS EM UNIDADE DE TERAPIA INTENSIVA: REVISÃO BIBLIOGRÁFICA

Nas UTI's são fundamentais os recursos que propiciem segurança aos pacientes e trabalhadores sob condições normais e de emergência, portanto estudos que tenham como objetivos o conhecimento dos riscos ocupacionais e o uso dos equipamentos de proteção individual entre os trabalhadores dessas unidades são atuais. Nesse sentido, o objetivo desse estudo é identificar as características dos estudos científicos sobre riscos ocupacionais em UTI nas bases de dados da BVS/BIREME e das Publicações Médicas (PUBMED), quanto ao ano, país, tipo e disponibilidade de publicação, idioma, tipo de estudo e abordagem, categoria temática. Trata-se de uma pesquisa bibliográfica, realizada eletronicamente, em agosto/2009, Para tanto, encontrou-se um total de 22 trabalhos, sendo 18 na LILACS, 2 na BDENF e 2 na PUBMED. Destes, predominaram os estudos publicados em 2004 (18,1%), no Brasil (77,2%), em artigo científico (68,2%), disponível na forma de resumo (72,7%), em português (77,3%), utilizando estudos descritivos (81,8%) e abordagem qualitativa (72,7%). Nas categorias temáticas destacaram-se a equipe de enfermagem (54,5%), aos tipos de riscos (22,7%) e a educação em saúde (13,6%). Diante desse estudo enfocamos a importância da educação permanente dos funcionários quanto as medidas de precaução diante de agentes biológicos, físicos e químicos, reformulação de políticas de prevenção de riscos ocupacionais, avaliação contínua da saúde dos trabalhadores, dos ambientes hospitalares e elaboração de mapa de riscos, fazem parte de uma estratégia de intervenção para redução de riscos ocupacionais em UTI.

PALAVRAS-CHAVE: RISCOS OCUPACIONAIS, UNIDADE DE TERAPIA INTENSIVA, ENFERMAGEM, PUBLICAÇÕES.

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