DOI: 10.4025/cienccuidsaude.v14i2.22583

ORIGINAL ARTICLE

KNOWLEDGE ABOUT WORK ACCIDENT BY THE NURSING IN SERVICE MOBILE EMERGENCY CARE[1]

Isabel Karolyne Fernandes Costa*
Isabelle Katherinne Fernandes Costa**
Amanda Jéssica Gomes de Souza***
Andréa Tayse de Lima Gomes****
Clélia Albino Simpson*****
Glaucea Maciel de Farias*****

ABSTRACT
Occupational Accidents (OA) are events that occur during labor activity at the company when on duty. It was aimed to identify the knowledge of nursing staff and characterize the occupational accidents occurred in a mobile emergency care service. Study exploratory and quantitative, conducted between November and December of 2010, in a mobile emergency care service of Natal/RN. To data collection, structured questionnaire was used. Of the 66 surveyed, 16.7% were nurses and 83.3% nursing technicians. Most of them did not know to conceptualize OA (51.5%), but 75.8% knew some standards and 27.4% of the professionals said that must occurred in the workplace. With respect to characteristics of the accident, the nurses (54.6%) have suffered more accidents than technicians (38.2%) and 74.1% of the professionals were performing patient transportation at the moment of the accident. Of the surveyed, 33.3% have suffered bruises caused by transport accidents (44.4%), reaching the upper and lower limbs and the pelvic waist (59.3%). Due to the great risk to suffer some type of OA, the education in service related to the thematic Biosecurity is important.

Keywords: Occupational Risks. Health Worker. Pre-Hospital Care.

INTRODUCTION

The Occupational Accidents (OA) are described as not planned events, fortuitous, consequential and fruits of a chance. In the language of common sense, an accident is understood as something nefarious, malevolent and random, causing damages to the victims. From this definition, it can be diagnosed the existence of empirical an impossibility to control and anticipate all amenable situations from causing accidents(1).

The Regulatory Standard 32 (RS-32) establishes the basic guidelines for the implementation of protective measures to the safety and health of workers in health services. In addition, the RS-32 discusses the situations of exposure to health risks of professional, as: biohazards, chemical hazards and ionizing radiation(2).

Biological risks are related to the probability of occupational exposure to microorganisms, cell cultures, parasites, toxins, and prions. With regard to chemical agents, the means of entry into the body are: digestive tract, respiratory, mucous membranes, parenteral and skin. As regards ionizing radiation, it is considered a physical risk, i.e. it is related to various forms of energy in which professionals can be exposed, such as noise, vibration, abnormal pressure, illumination, radiation and extreme temperature(2).

In addition, in 2010, 32,734 OA cases with biological material were notified in the information system of reportable diseases and,

[1]This work had no funding of any kind for its construction, was not discussed at scientific meetings and not published in national or international journal. This article is part of the master thesis in Nursing – Costa IKF. Occupational risks and accidents at work in a mobile urgency service of Rio Grande do Norte. 2011. [dissertation]. Natal (RN): Universidade Federal Rio Grande do Norte (UFRN); 2011.
*Nurse. Doctoral degree student by the Program of Graduate of the health sciences center of the UFRN. E-mail: isabelkarolyne@gmail.com
**Nurse. Assistant Professor I from the Courses of Graduation in Nursing at UFRN. E-mail: isabellekfc@yahoo.com.br
***Nurse. Doctoral degree student by the Program of Graduate in Nursing at UFRN. E-mail: amandajessicags@yahoo.com.br.
****Nurse. Master degree student by the Program of Graduate in Nursing at UFRN. E-mail: andrea.tlgomes@gmail.com
*****Nurse. Assistant Professor IV from the Courses of Graduation in Nursing of the Nursing Department at UFRN. E-mail: cleliasimpson@hotmail.com
******Nurse. Retired Professor from the Graduation Course and Graduation Program in Nursing Federal at UFRN. E-mail: glauceamaciel@gmail.com

once again, the nursing staff was the most victimized, being on average 49% of cases for accidents caused by cutting material[3].

In an urgent and emergency unit, situations related to the characteristics of the service are observed that can potentially promote the occurrence of the accident. In a research conducted in this unit in Belo Horizonte, accidents with cutting material in the nursing professionals of middle-level were 48.5%, noting the relevance of these accidents in emergency situation which are often motivated by the need for quick service and synchronized provided to patients at risk of death[4].

Facing this reality, it is understandable that the topic over OA is complex and involves a range of variables, being of fundamental importance that the worker knows what to do before an event like this, in addition to the rights that provided to him[5].

Given the above, it is stated that the knowledge of health professionals in relation to OA, especially the nursing staff, can provide subsidies for better scaling and understanding the impact of these events on public health. It also can contribute to the formulation of health promotion programs and, especially, prevention of diseases, since such events are one of the main factors triggering of absenteeism among these professionals due to crippling consequences generated by this type of accident.

Thus, there was the following question: what is the knowledge of nursing staff about occupational accidents and what are the occupational accidents that affect these professionals? To this end, the present study aimed to identify the knowledge of nursing staff and characterize the accidents at work occurred in a mobile service of urgency.

METHODOLOGY

This is a descriptive-exploratory study, prospective and quantitative approach. The research was conducted between the months of November and December 2010, during the three shifts-morning, afternoon and night, including weekends, in the Mobile Service of Urgency (MSU) of the metropolitan region of Natal/Rio Grande do Norte, located in the municipality of Macaíba.

The population was composed of 66 professionals from the nursing staff of MSU metropolitan, excluding a nurse, by being the researcher of this study. The data were obtained through the completion of the questionnaire by the professionals, by signing the informed consent by the participant.

The instrument used in data collection was a structured questionnaire, prepared by the researchers, which contained open and closed questions, divided into three parts: the first part dealt with the personal and professional characteristics, the second part was related to knowledge about standard precautions, safety standards and occupational hazards and the third part included characteristics of the accident.

On the instrument issue, which treats about suggestions from professionals to decrease OA, the person searched could show to three response alternatives.

It should be noted that this study is part of a broader research, whose instrument applied in data collection was composed of five parts, held at MSU metropolitan, constituted a dissertation. Its objectives were to identify the multi-professional team knowledge about the standards of standard precautions and worker safety; identify the occupational hazards peculiar to activities developed in this service; characterize the OA; and to know the procedures adopted after each OA.

The data was tabulated in a spreadsheet in Microsoft Excel software XP 2007 and analyzed through descriptive statistics using the statistical program Statistica 6.0. The results were presented with their respective relative and absolute frequencies in the form of tables.

The study followed ethical and legal aspects related to research involving human beings, as envisaged by Resolution 196/96 and by the current Resolution 466/2012 of the National Health Council. The research project has obtained a favorable opinion from the Committee of Ethics in Research at the Universidade Federal do Rio Grande do Norte (CER/UFRN), whose record is 147/2010.

RESULTS AND DISCUSSION

This study consisted of a sample of 66 nursing professionals, where 11 (16.7%) were

nurses and 55 (83.3%) were nursing technicians. Most searched were in the age range between 41 to 50 years old (n=27; 40.9%), with an average age of 39.5 years old (±7.7), as shown in Table 1 below.

Table 1. Demographic and professional characteristics of the nursing staff according to the professional category.

DEMOGRAPHIC AND PROFESSIONAL CHARACTERISTICS	NURSES		NURSING TECHNICIANS		TOTAL	
	n	%	n	%	n	%
Gender						
Female	7	63.6	27	49.1	34	51.5
Male	4	36.4	28	50.9	32	48.5
Age group						
21 to 30 years old	7	63.6	3	5.5	10	15.2
31 to 40 years old	1	9.1	24	43.6	25	37.9
41 to 50 years old	3	27.3	24	43.6	27	40.9
51 to 60 years old	0	0.0	4	7.3	4	6.1
Origin						
Natal	5	45.5	36	65.5	41	62.1
Grande Natal	2	18.2	5	9.1	7	10.6
Interior of the Sate	2	18.2	10	18.2	12	18.2
Other States	2	18.2	4	7.3	6	9.1
Training time						
Between 1 and 10 years	7	63.6	6	10.9	13	19.7
Between 11 and 20 years	3	27.3	43	78.2	46	69.7
> 20 years	1	9.1	6	10.9	7	10.6
Complementary Training						
Post-graduation	8	72.7	0	0.0	8	12.1
Updating Course	2	18.2	24	43.6	26	39.4
None	1	9.1	31	56.4	32	48.5
TOTAL	**11**	**100.0**	**55**	**100.0**	**66**	**100.0**

A publication made in 2011, whose sample was composed of 24 nurses from an intensive care unit of Rio de Janeiro reported that 87.5% of the participants of the survey were women. The same authors have stated that the female predominance among the nursing workers in health services reflects the composition of the profession[6].

Corroborating with this research, a study involving 66 nursing professionals who work on MSU in Campinas/SP showed that the average age of the professionals was 39.1 years old[7].

A research, conducted in MSU from Minas Gerais State, has shown that, for professional work in the field of urgent and emergency, it is essential that he has experience and technical skill, in addition to agility and objectivity in the evaluation of patients[8].

As for the origin, Table 1 shows that most professionals, 41 (62.1%) resides in Natal (RN). The data from the last Census, published in 2010, disagreed with this study, when revealed that, in Brazil, 10,146,721 million people working or studying in different municipalities than those where they resided, and the

motivation for the displacement of the professionals and/or students to other cities is the search for better conditions of health, employment and education[9,10].

A study with 24 nurses Cardio-Intensive Unit of a large federal hospital of Rio de Janeiro disagrees with the present research showing that when compared to the duration of the training of professionals, 16.6% of nurses have from 11 to 15 years graduated. In this perspective, it is presumed that the greater the time professional training and continuing study courses the greater potential of experience. In this way, the education process is required to ensure the quality of the assistance provided, especially in the high complexity actions[6,11].

In this study, it should be noted that, especially in the category of nursing technicians, there is a considerable amount (56.4%) of professionals without any additional training, while 72.7% of nurses had any post-graduation school. In this context, these results are similar to a research on occupational violence in a referral hospital in trauma in Natal (RN), in which the researcher has determined that, among the assistants/technicians, 79.7% had just completed high school, while 69.2% nurses had post-graduations[12].

In a similar study, authors[7] found in a research conducted in 2011, in MSU of the interior of São Paulo that the service was composed of 50 middle-level professionals (technicians and nursing assistants) and 16 nurses, being the ratio of one nurse to three technicians.

Working daily with unsatisfactory conditions is a contributing factor in the acceleration of the process of the mismatch between the human and the inhuman. Brazil is facing a crisis in affordability and efficaciousness in the health system. In this scenario, the work environment of nurses has become inhumane and of difficult immediate solution. Without beds and insufficient amount of workers to meet the demand, not always the needs of users and workers are met. Such factors interfere negatively on worker´s health[13].

The table 2, below, will demonstrate the knowledge of nursing professionals over OA distributed by category.

Table 2. Knowledge of nursing staff about OA according to the professional category.

KNOWLEDGE ABOUT OCCUPATIONAL ACCIDENTS	NURSE		NURSING TECHNICIANS		TOTAL	
	n	%	n	%	N	%
Knowledge about AO concept						
Right answer	6	54.6	26	47.3	32	48.5
Wrong answer	5	45.4	29	52.7	34	51.5
Knowledge about safety rules						
Right answer	8	72.7	42	76.4	50	75.8
Wrong answer	3	27.3	13	23.6	16	24.2
TOTAL	**11**	**100.0**	**55**	**100.0**	**66**	**100.0**

In the present study, it was found that all professionals (n=66; 100.0%) were claimed to know what is an accident. However, authors[14] state that knowledge does not ensure the adoption of safe practices in the workplace. In addition, it is necessary to evaluate the kind of knowledge that the trainings in service have emphasized. The inclusion of aspects related to changes in behavior, as well as stimulate the self-promotion of health, can contribute to modify the panorama of occupational accidents among healthcare workers.

Similar to the present study, an article published in 2011 reported that nursing staff has knowledge and sufficient material resources to protect themselves. However, many of them overlook the use of such resources, justifying the confidence they have acquired throughout their professional experience. This action

contributes substantially to the occurrence of the OA[15].

Authors found that most professionals have the knowledge and adopted the standard precautions against OA. However, the fact that the professionals have knowledge about the risks in the workplace, does not always ensure adherence to the use of protective measures. The Biosafety service training is a factor of utmost importance in an attempt to induce the professional to adopt precautionary measures as standard require new learning and, especially, changes in habits with which many professionals have difficulty of dealing [5,16].

About the way in which professionals have acquired knowledge on safety standards, 27 (40.9%) reported having learned in lectures, 16 (24.2%) in courses and seven (10.6%) on graduation. According to the professional category, it was noted that, in relation to nurses, four (50.0%) said they learned about the topic in the graduation, two (25.0%) in lectures and two (25.0%) in courses. As for nursing technicians, most knowledge acquired in lectures (n=25; 59.5%), followed by 14 (33.3%) that they learned in courses and three (7.1%) on graduation. It should be noted that the three nursing technicians who responded have learned at graduation already have the top level full, but still act as nursing technicians.

Table 3 highlights the results related to suggestions of professionals, by category, to the attempt to reduce the OA.

Table 3. Distribution of professionals by category with regard to suggestions to decrease OA.

SUGGESTIONS TO REDUCE OCCUPATIONAL ACCIDENTS	NURSES		NURSING TECHNICIANS		TOTAL	
	n	%	n	%	n	%
Inclusion in training courses	8	25.8	37	25.0	45	25.1
Guidance in the workplace	10	32.3	39	26.4	49	27.4
Continuing studies courses	7	22.6	36	24.3	43	24.0
Vaccination against hepatitis B type	1	3.2	6	4.1	7	3.9
Vaccination against tetanus	2	6.5	8	5.4	10	5.6
Others	3	9.7	22	14.9	25	14.0
TOTAL	**31**	**100.0**	**148**	**100.0**	**179**	**100.0**

The permanent education in introductory training and service are presented as a means to strengthen pedagogical practices that are important in the search for the best professional development in order to provide learning on the job, through exchange of experiences and the getting real health needs. Therefore, it is extremely important that the educational process is implemented in several urgent and emergency services, considering the importance of providing a fast and qualified service, targeting the reduction of morbidity and mortality of the victims assisted by the service[17].

Table 4 below will demonstrate the relative and absolute frequencies of only those professionals who have suffered some kind of OA (n=27), which corresponds to six nurses and 21 nursing technicians.

The nurse´s work is connected to potential occupational hazards in several periods of service of MSU as the scene of the occurrence, the transportation to the hospital and even the arrival of the victim in the hospital institution. Thus, the professional is vulnerable to various types of undesirable events and this comes to provide a stressful working environment and conducive to occupational hazards and illness[18].

In one study[19] about biological accidents with the multidisciplinary team of Pre-Hospital Care from Belo Horizonte, the authors identified that nurses (24.0%) were more affected than nursing technicians (17.7%).

Table 4. Characterization of OA suffered by nursing staff according to the professional category.

CHARACTERIZATION OF THE OCCUPATINAL ACCIDENT	NURSES		NURSING TECHINICIANS		TOTAL	
	n	%	n	%	n	%
Type of activity exercised at the time of the occupatinal accident						
Patient´s transportation	2	33.3	18	85.6	20	74.1
Preparation and material handling	0	0.0	0	0.0	0	0.0
Route to go and come back to work	0	0.0	1	4.8	1	3.7
Patient´s care	3	50.0	1	4.8	4	14.8
Equipment handling	1	16.7	1	4.8	2	7.4
Types of injuries						
Contusion	2	33.3	7	33.3	9	33.3
Sprain	1	16.7	1	4.8	2	7.4
Fracture	0	0.0	4	19.0	4	14.8
Perfurations	1	16.7	1	4.8	2	7.4
Excoriation	1	16.7	4	19.0	5	18.5
Dislocation	0	0.0	2	9.5	2	7.4
Others	1	16.7	2	9.5	3	11.1
Injured body area						
Head and neck	0	0.0	2	9.5	2	7.4
Face	1	16.7	1	4.8	2	7.4
Chest	1	16.7	2	9.5	3	11.1
Upper limbs, lower limbs and pelvic waist	4	66.7	12	57.1	16	59.3
External surface	0	0.0	4	19.0	4	14.8
Causative agent of the lesions						
Transportation accident	2	33.3	10	47.6	12	44.4
Cutting material	1	16.7	1	4.8	2	7.4
Falls on the same level	0	0.0	2	9.5	2	7.4
Fall of equipment on the professionals	0	0.0	4	19.0	4	14.8
Biting or stroke of patients	0	0.0	2	9.5	2	7.4
Excessive exercise	2	33.3	1	4.8	3	11.1
Contact with secretions	1	16.7	0	0.0	1	3.7
Foreign body penetration	0	0.0	1	4.8	1	3.7
TOTAL	**6**	**100.0**	**21**	**100.0**	**27**	**100.0**

It was found that 33.3% of workers suffered some sort of injury (n=9) and the most injured body region was the upper, lower limbs and the pelvic waist (n = 16; 59.3%). Finally, as the causative agent of the lesions (n=12; 44.4%) most of them replied that the accident was caused in transport, such as for example: sudden braking, collisions and overturns.

A research[18], with the objective of investigate through literature the illness risks faced by nursing staff of MSU, observed that the nurse and nursing staff are exposed to multiple factors that predispose to the risk of illness. Among them, there are the physical risks (noise and extreme temperatures like cold or heat), chemicals (contact with chemicals), workload, biological hazards (bacteria, viruses and fungi), psychological (stress and moral aggression) and mechanical (car accidents and skin injuries).

In the Pre-Hospital Care, the technique used in the removal of victims with planks is an action that requires a very intense body mechanics of the worker. When using incorrect techniques or postures, the professional can acquire muscle, spinal column, spine, shoulder or even lumbar injury[20].

Furthermore, the body impacts against the inside of the ambulance can cause skin and muscle injury as abrasions, bruises and contusions caused by big changes of direction or acceleration. In addition, during the transport of patients from the accident place to the interior of the ambulance or during the movement of the ambulance, the professionals who are not attached to the seat belt may be thrown against objects and/or patients[20].

CONCLUSION

It is concluded that, as regards the socio-demographic and professional characteristics of the participants, there was a slight predominance of females, aged between 41 and 50 years old, resident in the State capital (Natal) and most professionals were between 15 and 20 years old of graduation and no additional training.

Most of the respondents did not know the concept of the OA, but knew some safety standards. There was emphasis on the acquisition of this knowledge among the nurses, at graduation, and among the technicians, in lectures. The great part of the nursing staff agree that the best suggestion to minimize the OA is the guidance of this topic in their own workplace.

In relation to the characteristics of the OA, the nurses suffered more OA than nursing technicians; most were transporting patients at the time of the occurrence. Most of the injuries were bruises, caused by transportation accidents, hitting mainly the upper, lower limbs and the pelvic waist.

In fact, there is still a lot to exploration, because this approach in Pre-Hospital Care is incipient and it is believed that each service should rethink about the occupational health of its workers and establish a plan of action aimed at the maintenance of professional safety through training and introductory service permanent. That is, when the professional enters the service with an emphasis on the promotion of workers´ health and prevention of accidents and diseases/illnesses.

CONHECIMENTO SOBRE ACIDENTE DE TRABALHO PELA ENFERMAGEM NO SERVIÇO DE ATENDIMENTO MÓVEL DE URGÊNCIA

RESUMO

Acidentes de Trabalho (AT) são eventos que ocorrem durante a atividade laboral a serviço da empresa. Objetivou-se identificar o conhecimento da equipe de enfermagem e caracterizar os acidentes de trabalho ocorridos em um serviço de atendimento móvel de urgência. Estudo exploratório e quantitativo, realizado entre novembro e dezembro de 2010, no Serviço de Atendimento Móvel de Urgência de Natal/RN. Para a coleta de dados, utilizou-se um questionário estruturado. Dos 66 pesquisados, 16,7% eram enfermeiros e 83,3% técnicos de enfermagem. A maioria não sabia conceituar AT (51,5%), mas 75,8% conheciam algumas normas e 27,4% dos profissionais afirmaram que deve ser feita no próprio local de trabalho. Em relação às características do acidente, os enfermeiros (54,6%) sofreram mais acidentes do que os técnicos (38,2%) e 74,1% dos profissionais estavam realizando transporte de pacientes no momento do acidente. Dos pesquisados, 33,3% sofreram contusões provocadas por acidentes de transporte (44,4%), atingindo os membros superiores, inferiores e a cintura pélvica (59,3%). Devido ao grande risco de sofrer algum tipo de AT, é importante a educação em serviço no tocante a temática Biossegurança.

Palavras-chave: Riscos Ocupacionais. Saúde do Trabalhador. Assistência Pré-Hospitalar.

CONOCIMIENTO DE ACCIDENTE DE TRABAJO POR LA ENFERMERÍA EN EL SERVICIO DE ATENCIÓN DE EMERGENCIA MÓVIL

RESUMEN
Accidentes de Trabajo (AT) son eventos que ocurren durante la actividad laboral a servicio de la empresa. El objetivo fue identificar el conocimiento del equipo de enfermería y caracterizar los accidentes de trabajo que se produjeron en un servicio de atención de emergencia móvil. Estudio exploratorio y cuantitativo, realizado entre noviembre y diciembre de 2010, en un Servicio de Atención de Emergencia Móvil de Natal/RN. Para la recolección de los datos, se utilizó un cuestionario estructurado. De los 66 encuestados, el 16,7% era enfermero y 83,3% técnicos de enfermería. La mayoría no sabía conceptualizar AT (51,5%), pero el 75,8% sabía algunas normas y el 27,4% de los profesionales afirmó que debe ser hecha en el propio lugar de trabajo. Con respecto a las características del accidente, los enfermeros (54,6%) han sufrido más accidentes que los técnicos (38,2%) y el 74,1% de los profesionales estaba realizando el transporte del paciente en el momento del accidente. De los encuestados, el 33,3% ha sufrido contusiones causadas por los accidentes de transporte (44,4%), alcanzando los miembros superiores, inferiores y la cintura pélvica (59,3%). Debido al gran riesgo de sufrir algún tipo de AT, es importante la educación en servicio en relación al tema de Bioseguridad.

Palabras clave: Riesgos Laborales; Salud del Trabajador; Atención Pre-Hospitalaria.

REFERENCES

1. Aerosa J, Dwyer T. Acidentes de trabalho: uma abordagem sociológica. Configurações [on-line]. 2010 [acesso em: 6 set. 2014]; 7: 107-28. Disponível em: http://configuracoes.revues.org/213

2. São Paulo. Conselho Regional de Enfermagem. Norma Regulamentadora nº 32. [acesso em: 6 set. 2013]; Disponível em: http://portal.coren-sp.gov.br/sites/default/files/livreto_nr32_0.pdf

3. Rio Grande do Norte. Secretaria de Estado da Saúde do Rio Grande do Norte. Sistema de Informação de Agravos de Notificação. Estatística dos agravos relacionados ao trabalho. Acidente com exposição a material biológico; 2011 [acesso em: 8 jun 2013]; Disponível em: http://www.cerest.rn.gov.br/contentproducao/aplicacao/sesap_cerest/cerest/agravos_cerest_rn/estatistic_sinan%20rn%20acbio-ok.pdf

4. Oliveira AC, Diaz MEP, Toledo AD. Acidentes de trabalho com materiais perfurocortantes entre a equipe multiprofissional de uma unidade de emergência. Cienc Cuid Saude. [on-line]. 2010 [acesso em: 17 abr. 2013]; abr/jun;9(2):341-349]. Disponível em: http://periodicos.uem.br/ojs/index.php/CiencCuidSaude/article/view/8537/6085

5. Brasil. Ministério da Previdência Social. Saúde e segurança ocupacional. Distrito Federal; 2009 [acesso em: 8 jun. 2013]; Disponível em: http://www.mpas.gov.br/conteudoDinamico.php?id=39.

6. Silva RC, Ferreira MA. Características dos enfermeiros de uma unidade tecnológica: implicações para o cuidado de enfermagem. Rev Bras Enferm. 2012 [acesso em: 14 maio 2013]; 64(1): 98-105. Disponível em: http://www.scielo.br/pdf/reben/v64n1/v64n1a15.pdf.

7. Vegian CFL, Monteiro MI. Condições de vida e trabalho de profissionais de um Serviço de Atendimento Móvel de Urgência. Rev Latinoam Enferm. 2011 [acesso em: 14 maio 2013]; 19 (4): [7 telas]. Disponível em: http://www.scielo.br/pdf/rlae/v19n4/pt_22.pdf.

8. Avelar VLLM, Paiva KCM. Configuração identitária de enfermeiros de um serviço de atendimento móvel de urgência. Rev Bras Enferm. 2010 [acesso em: 6 set. 2014]; 6(6): 1010-8. Disponível em: http://www.scielo.br/pdf/reben/v63n6/22.pdf.

9. IBGE. Censo demográfico de 2010. Brasília, DF; 2010.

10. Brito GS, Ribeiro AEM. Migrações rurais e fluxos de conhecimento agroecológico: o caso de montes claros MG. Qualit@s Revista Eletrônica [on-line]. 2010 [acesso em: 14 maio 2013]; 9 (2): 83-98]. Disponível em: http://revista.uepb.edu.br/index.php/qualitas/article/viewFile/689/493.

11. Lazzari DD, Schmidt N, Jung W. Educação continuada em unidade de terapia intensiva na percepção de enfermeiras. Rev Enferm UFSM. [on-line]. 2012 [acesso em: 8 jun. 2013]; 2(1): 88-96. Disponível em: http://cascavel.cpd.ufsm.br/revistas/ojs-2.2.2/index.php/reufsm/article/view/4592/3130.

12. Morais Filho LA. Violência ocupacional contra profissionais de saúde em um hospital de urgência. 2009. [dissertação]. Natal (RN): Universidade Federal do Rio Grande do Norte; 2009 [acesso em: 15 maio 2014];Disponível em: http://bdtd.ufrn.br/tde_arquivos/5/TDE-2010-09-23T103834Z-2910/Publico/LuisAMF_DISSERT.pdf.

13. Fontana RT. Humanização no processo de trabalho em enfermagem: uma reflexão. Rev Rene. [on-line]. 2010 [acesso em: 6 set. 2014]; jan/mar; 11(1): 200-7. Disponível em: file:///C:/Users/Sala12/Desktop/364-1497-1-PB.pdf

14. Bonini AM, Zeviani CP, Facchin LT, Gir E, Canini SRMS. Exposição ocupacional dos profissionais de enfermagem de uma unidade de terapia intensiva a material biológico. Rev Eletrônica Enferm [on-line]. 2009 [acesso em: 6 set. 2014]; 11(3): 658-64. Disponível em: http://www.fen.ufg.br/revista/v11/n3/v11n3a25.htm.

15. Magagnini MAM, Rocha SA, Ayres JA. O significado do acidente de trabalho com material biológico para os profissionais de enfermagem. Rev Gaúch Enferm. 2011 [acesso em: 6 set. 2014];jun; 32(2): 302-8. Disponível em: http://www.scielo.br/pdf/rgenf/v32n2/a13v32n2.pdf

16. Souza MCMR, Freitas MIF. Representações de profissionais da atenção primária sobre risco ocupacional de infecção pelo HIV. Rev Latinoam Enferm. 2010 [acesso em: 10 set. 2014]; 18(4): [08 telas]. Disponível em: http://www.scielo.br/pdf/rlae/v18n4/pt_13.pdf.

17. Owen JA, Madeline HS. Integrating Interprofessional Education into Continuing Education: A Planning Process

for Continuing Interprofessional Education Programs. J Cont Educ Health Profes. 2013; 33(2):109–17.

18. Silva OM, Ascari RA, Schiavinato D, Ribeiro MC. Riscos de adoecimento enfrentados pela equipe de enfermagem do SAMU: uma revisão integrativa. Rev Saúde Pública. [on-line]. 2014 [acesso em: 2014 set 10];jan/abr; 7(1):107-21. Disponível em: http://esp.saude.sc.gov.br/sistemas/revista/index.php/inicio/article/view/172/249.

19. Oliveira AC, Lopes ACS, Paiva MHRS. Acidentes ocupacionais por exposição a material biológico entre a equipe multiprofissional do atendimento pré-hospitalar. Rev Esc Enferm USP. 2009 [acesso em: 16 abr. 2013]; 43(3): 677-83. Disponível em: http://www.scielo.br/scielo.php?pid=S0080-62342009000300025&script=sci_arttext

20. Soerensen AA, Moriya TM, Soerensen R, Robazzi MLC. Atendimento pré hospitalar móvel: fatores de riscos ocupacionais. Rev Enferm UERJ. 2008 [acesso em: 15 abr. 2013]; 16(2): 187-92. Disponível em: http://www.facenf.uerj.br/v16n2/v16n2a08.pdf.

Corresponding author: Isabel Karolyne Fernandes Costa. 39, do Motor St., Praia do Meio, CEP: 59010-090. Natal/RN, Brazil. E-mail: isabelkarolyne@gmail.com.

Submitted: 22/01/14
Accepted: 24/11/14