

11 - OCCUPATIONAL ACCIDENT EYE OF WORKERS NURSING ADMINISTRATION OF ANTINEOPLASTIC CHEMOTHERAPY: A REVIEW LITERATURE

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INTRODUCTION

This paper deals with a literature review of the occurrences of accidents oculares. O accident at work is characterized by a direct interaction, sudden and involuntary between the person and the offending agent in a short period of time (Richardson et al., 2004). Considering its importance as a public health problem for workers in the health sector, particularly for the nursing workers as it is the most representative of personnel within the hospital and its primary activity is characterized by health promotion to a large number of people (Almeida et al., 2009).

With this in mind, based on Picaluga (1983), we can say that the health-worker's illness is a complex and dynamic interaction of the general living conditions, labor relations, work process and control it themselves workers put in action to interfere laugh in their own living and work (Haag et al., 2001). Cancer is responsible for about 13% of all causes of death in the world: more than 7 million people die annually of the disease (Cancer-International Union UICC).

In 2004 Brazil, recorded 141 thousand deaths from cancer. The main causes of cancer death in men were lung, prostate and stomach, while among females were breast, lung and intestine.

The explanation of such a high percentage of cancer deaths are directly related to greater exposure of individuals to carcinogenic risk factors. The current living standards adopted in relation to work, nutrition and consumption in general exposes individuals to more aggressive environmental factors related to chemical, physical and biological result of a process of industrialization increasingly evolved.

This distribution of the industrialization process varies in intensity according to social inequalities. These models of life have important effects on the epidemiological profile.

The reduction in mortality and birth indicates the extension of life expectancy and the aging population, leading to increased incidence of chronic degenerative diseases, particularly cardiovascular disease and cancer. With the recent aging population, which projects the exponential growth of the elderly, it is possible to identify an increase in the prevalence of cancer, which requires, the managers of the Unified Health System (SUS), an immense effort for the provision of adequate attention to patients.

Cancer is therefore a public health problem for the developed world and also for developing nations. In Brazil, the distribution of different types of cancer suggests an epidemiological transition in progress.

In Brazil, the estimate for the year 2008, crude rates of incidence by 1 million and the number of new cases of cancer among men and women, by region and by macro-region analysis shows that the Southeast region ranks first, responsible for 242,060 new cases. The South is in second place with 99,580 new cases, the Northeast has the third place, with 78,960 new cases, the Midwest Region has fourth, with 28,510 new cases, and the Northern Region is the fifth place, with 17,620 new cases.

Chemotherapy is the method that uses chemicals, called chemotherapy, the treatment of diseases caused by biological agents. When applied to cancer, chemotherapy is called antineoplastic chemotherapy or chemotherapy antitumoral.

The first anti-cancer chemotherapy was developed from mustard gas, used in both World Wars as a chemical weapon. After the exposure of soldiers to this agent, it was observed that they developed marrow hypoplasia and lymphoid tissues, which led to its use in the treatment of malignant lymphomas. Since the publication in 1946 of the clinical trials with mustard gas and the observations on the effects of folic acid in children with leukemia, there was growing progress of cancer chemotherapy. Currently, chemotherapy more active and less toxic are available for use in clinical practice. The gains obtained in recent decades, the field of cancer chemotherapy, have facilitated the application of other types of cancer treatment and allowed more healing (Brazil, 1993).

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Therefore, we will describe in what level of movement of these products (local, national and international) and the analysis of the goals proposed by these results from the adjustment into categories according to the theoretical content analysis (Bardin, 2000).

OBJECTIVES

- To identify the literature on eye-related injuries in nursing personnel in the administration of cancer chemotherapy.
- Collaborate in the process of reflective practice in nursing administration of chemotherapy antitumoral.

BACKGROUND

Given the assumption that accidents in the workplace cause damage in most cases damage to the team involved, we seek to explore alternatives for prevention and improvement of quality of life in the working environment by minimizing the exposure of nursing workers to perform those activities, however, set up routines, high weekly workload and procedures performed with small cadre of professionals to fulfill these functions (Almeida et al, 2009). Through the conception of the accident and its implications for occupational health and with regard to insertion in the work report at the changes occurring in the labor laws. Its implications and adjustments in order to maximize the health of the worker, before the Regulatory Norm (NR) 32.3.9 Of

Drugs and Drug Risk 32.3.9.1 For purposes of this NR are considered medicines and drugs to those who risk cause genotoxicity, carcinogenicity, teratogenicity and toxicity serious and selective about organs and systems, Security and Health at Work in Health Care (Brazil, 2005).

From the legal requirements are responsible for medical services companies have had to worry about the results of their occupational programs. With respect to chemotherapy, it is understood by accident, NR 32.3.9.4.9.1: a) Environmental: Environmental contamination due to the output of the product of filling in which it is packaged, or by shedding or by solid or liquid aerosols b) personal: Pollution caused by contact or inhalation of drugs in chemotherapy antineoplastic therapy at any stage of the process. Given the importance of providing the prevention of occupational accidents eye to our research and our practice, we deem necessary to conduct a study to make us reflect how we are developing our assistance. It should be emphasized that to develop a nursing science, operating procedures and theory aimed at a systematic assistance. Thus the workers involved should receive initial and continuing training that contains at least: a) the main routes of exposure, b) the therapeutic and adverse effects of these drugs and the possible health risk, both long and short term c) standards and standardized procedures for the handling, preparation, transportation, administration, distribution and disposal of antineoplastic drugs d) the rules and procedures to be adopted in case of accidents; NR 32.3.10 Empowerment (Brazil, 2005). For this we have the following questions: Risks eye on workers in nursing administration occur because of lack of knowledge about cancer chemotherapy? The eye-related injuries in nursing staff in the administration of anticancer chemotherapy occur by lack of training? Nursing workers are exposed to eye accidents in the administration of cancer chemotherapy by small cadre of professionals to fulfill this function?

METHODOLOGY

The methods used, this study follows in the footsteps of an integrative literature review (Roman et al., 1998) that aims to synthesize results of research on an issue clearly defined, and enhance the impact of research on practice professional.

This is a method that combines the results of primary research on the same subject in order to synthesize and analyze this data to develop a more comprehensive application of a specific phenomenon (Roman et al., 1998).

It is called integrative because it provides more comprehensive information about a particular event, from data taken from previous research without, necessarily, have a historic significance (Roman et al., 1998).

The integrative review of research must follow five consecutive stages, namely: problem formulation, data collection, data evaluation, analysis and interpretation of data collected and the public presentation (Roman et al., 1998).

A survey from the VHL database using the following keywords: nursing occupational accidents, occupational health, risks of chemotherapy, risk eye, eye health nursing, eye health worker, occupational eye hazards.

The literature used as a criterion for inclusion languages, Portuguese, English and Spanish in the study, published articles in that database between the years 2000 to 2009. Collecting this information took place from March 18 to May 16, 2009.

Regarding the criteria established to pursue the work that formed the study population were excluded from those productions that were in more than one page in the database VHL in this case was counted only once and productions that were indicated in the database, but found that when there was no title or abstract available, making it impossible so to do an analysis of information. After applied the criteria of inclusion and exclusion of 164 publications were eliminated a total of 38 appear repeatedly in more than one database. That is because some journals where these studies have been published are indexed in more basic, such as the Latin American Journal of Nursing who appears in both the Lilacs and Scielo in. Thus, our sample consisted of 126 publications.

During the evaluation of the data of integrative review we conducted a trial of the collected data critical to whether the reviewed publications were actually related to the object of interest to our way of production, the database on which they are focused area, years of publication, titration of the first author, journal it was published, objectives of the article and their descriptors.

After applying the inclusion criteria to the total population, we analyzed the 38 items that formed our sample being observed they were all in line with the objectives of our study.

After completion of data collection, we will describe these as the year of publication, titration of the author and circulation of the magazine where the article was published. In addition, we conducted a content analysis of the goals of these productions, which were established categories, the context units and recording units. Thus, it was possible to see the profile of the publications and those who publish on occupational accidents with eye care.

ANALYSIS AND DISCUSSION OF RESULTS

Using the keywords nursing occupational accidents, occupational health, risks of chemotherapy, risk eye, eye health worker and occupational eye hazards found a total of 164 articles in VHL, distributed as shown in Table I.

Table I - Distribution / journal or e-Portal and the number of articles found in VHL:

Magazine / Portal electronic	Numbers Articles
Adolesc	12
BBO	01
BDenf	15
Cochrane	01
Lilacs	44
Medline	80
Scielo	11

After applied the criteria of inclusion and exclusion, of 164 publications were eliminated a total of 38 appear repeatedly in more than one data base.

Thus, our sample comprised 126 publications which, when divided according to subject area, had the distribution shown in Table II.

Table II - Distribution of publications related to occupational risk ocular occurred in nursing according to subject area.

Thematic area	No. of publications found
Medical control of health	11
Elimination and control of risk conditions	18
Organizational measures	13
Prevention and protection	30
Prevention of environmental	15
Tracking, monitoring and surveillance	22
Epidemiological surveillance	17
Total	126

In the database VHL are no studies that dealt with occupational eye health nursing BYETTA antineoplastic drugs and occupational health from the year 2000, spread over years as shown in Table III.

Table III - Distribution of publications related to occupational risk ocular occurred in nursing personnel to administer anti-cancer chemotherapy second year of publication.

Year of publication	No. of publications found
2000	19
2001	10
2002	15
2003	18
2004	20
2005	30
2006	20
2007	20
2008	12
2009	00
Total	126

We found that production of the year 2009, possibly by the fact that some productions may have been carried out but are still in the process of submitting and approving the listing and therefore have not been found so far.

In reviewing the studies that reflect the health problem in nursing workers specifically, the eye damage occurs because of the presence of particles suspended in air, poor environmental conditions and improper handling of products harmful to the visual apparatus. These showed that the greatest risk for these accidents occur when exposure to biological material, the sharps and fluids (blood and fluid) human body. The highest frequency of occurrence of accidents was the performance of duties in the morning.

It is observed in recent years a growth not only in numbers but the quality of those articles, so we believe there is a tendency that such publication will continue or increase for the years 2009 and subsequent years.

Of the 164 publications, similar to articles in national and international journals and 31 were investigated in dissertations between master and doctorate.

FINAL

At the end of this study highlight the importance of performing this integrative review of the studies have provided knowledge that deal with occupational accidents with eye care.

We have seen that most studies of occupational accidents in nursing were conducted by nurses and doctors, followed by teachers and, to a lesser extent, for nurses who work in direct care, demonstrating a tendency of the publication of study developed by researchers who reflect about nursing practice in the light of a theory with greater frequency, if compared to nurses as one of the most qualified professionals to work on the subject, having strong knowledge of health education is vital to the development of the nursing team .

It is known for reaching a growing body of knowledge of professional nursing as a discipline is no need to integrate theory and practice for which there is a mutual assistance among those who research the theories and those who, because they are in care, may use them in their professional practice.

It is worth remembering that for this to be achieved there is need to search the literature, reflect the practice that we develop and ultimately contribute to the body of nursing knowledge and strengthening the profession by conducting research to examine its applicability to the care and the study of concepts and their dissemination among nurses.

In addition to a major joint routing and collective struggles of nursing, it is suggested that health administrators and managers of nursing services should examine, diagnose, and consider the problems existing occupational eye therefore perfect vision is ideal for all. But the nursing workers, in particular, need accurate view to the exercise of their professional activities. Furthermore, we are exposed to risks arising from ocular chemical, physical and biological. The hospital outpatient setting and pose many risks to eyes, especially for the nursing staff.

We also note that the practices adopted by nursing personnel during administration of antineoplastic chemotherapy expose us to greater risk of direct contact of drug contamination staff still favors the contamination of the workplace. It is suggested to develop programs of continuing education and support to health in these workers. An important step to prevent the recurrence of such accidents would be the prevention of human errors by the adoption of continuous professional training, use of goggles and preventive measures.

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OCCUPATIONAL ACCIDENT EYE OF WORKERS NURSING ADMINISTRATION OF ANTINEOPLASTIC CHEMOTHERAPY: A REVIEW LITERATURE ABSTRACT

This study is intended to describe the trends of publications about occupational eye accidents in nursing personnel in the administration of cancer chemotherapy, the level of circulation of such productions, besides the analysis of the goals proposed by these studies, following the footsteps of an integrative review of literature. Found 164 articles in the Virtual Health Library (VHL) using the keywords "nursing occupational accidents", "health worker", "risks of chemotherapy," "risk eye," eye health nursing, eye health worker "and "occupational hazards eye" in the databases of the health sciences in general and in specialized areas. After applying the inclusion criteria, we come to the sample of 126 publications. Data collection was conducted between April and June 2009. It was observed that most studies were conducted by doctors nurses, teachers and graduates. We conclude that contribute to the body of nursing knowledge and strengthening the profession by conducting research for these products in addition to the analysis of the goals proposed by these studies, in analyzing its applicability to the care and study of concepts.

DESCRIPTORS: Employees of nursing, occupational accidents eye, risks of chemotherapy, eye health nursing, eye health worker, the risk agent and Integrative review.

ACCIDENT DU TRAVAIL AVEC LES YEUX DES TRAVAILLEURS SOINS INFIRMIERS ADMINISTRATION DE LA CHIMIOTHÉRAPIE ANTICANCÉREUSE: UN EXAMEN LITTÉRATURE RÉSUMÉ

Cette étude vise à décrire les tendances des publications sur les accidents du travail dans l'œil personnel infirmier dans l'administration de la chimiothérapie contre le cancer, le niveau de circulation de ces productions, outre l'analyse des objectifs proposés par ces études, en suivant les traces d'un examen d'intégration de littérature. Trouvé 164 articles dans la bibliothèque virtuelle en santé (VHL) en utilisant les mots-clés «soins infirmiers accidents du travail», «travailleur de la santé», «risques de la chimiothérapie», «risque œil», de la santé oculaire de soins infirmiers, travailleurs de la santé oculaire "et "les risques professionnels œil" dans les bases de données des sciences de la santé en général et dans des domaines spécialisés. Après avoir appliqué les critères d'inclusion, nous en venons à l'échantillon de 126 publications. La collecte des données à l'échantillon de 126 publications. La collecte des données a été menée entre avril et Juin 2009. On a observé que la plupart des études ont été menées par les médecins les infirmières, les enseignants et les diplômés. Nous concluons que contribuer à l'ensemble des connaissances en soins infirmiers et le renforcement de la profession en effectuant des recherches pour ces produits en plus de l'analyse des objectifs proposés par ces études, en analysant son applicabilité aux soins et à l'étude des concepts.

DESCRIPTORS: Les employés des soins infirmiers, les accidents des yeux, les risques de la chimiothérapie, les soins infirmiers de la santé oculaire, d'un travailleur de la santé oculaire, l'agent de risque et l'examen d'intégration.

ACCIDENTE LABORAL CON LOS OJOS DE LOS TRABAJADORES ENFERMERÍA ADMINISTRACIÓN DE QUIMIOTERAPIA ANTINEOPLÁSICA: UNA REVISIÓN LITERATURA RESUMEN

Este estudio pretende describir las tendencias de las publicaciones sobre accidentes oculares del trabajo en el personal de enfermería en la administración de la quimioterapia del cáncer, el nivel de circulación de esas producciones, además del análisis de las metas propuestas por estos estudios, siguiendo los pasos de una revisión integradora de la literatura. 164 artículos encontrados en la Biblioteca Virtual en Salud (BVS) utilizando las palabras clave "los accidentes de trabajo de enfermería", "trabajador de la salud", "los riesgos de la quimioterapia", "ojo de riesgo", enfermería de salud de los ojos, trabajador de la salud ocular "y "Riesgos Laborales ojo" en las bases de datos de las ciencias de la salud en general y en áreas especializadas. Después de aplicar los criterios de inclusión, llegamos a la muestra de 126 publicaciones. La recopilación de datos se realizó entre abril y junio de 2009. Se observó que la mayoría de los estudios fueron realizados por médicos, las enfermeras, los profesores y graduados. Se concluye que contribuyen al cuerpo de conocimientos de enfermería y el fortalecimiento de la profesión mediante la realización de la investigación de estos productos además de los análisis de los objetivos propuestos por estos estudios, en el análisis de su aplicabilidad a la atención y el estudio de los conceptos.

DESCRIPTORES: Los empleados de enfermería, profesionales accidentes oculares, los riesgos de la quimioterapia, la enfermería de la salud ocular, trabajador de la salud ocular, el agente de riesgo y la revisión Integrativa

ACIDENTE OCUPACIONAL OCULAR DOS TRABALHADORES DE ENFERMAGEM NA ADMINISTRAÇÃO DE QUIMIOTERAPIA ANTINEOPLÁSICA: UMA REVISÃO BIBLIOGRÁFICA**RESUMO**

Esse estudo tem objetivo de descrever as tendências das publicações acerca dos acidentes oculares ocupacionais em trabalhadores de enfermagem na administração de quimioterapia antineoplásica, o nível de circulação dessas produções, além da análise dos objetivos propostos por estes estudos, seguindo os passos de uma revisão integrativa da literatura. Foram encontrados 164 artigos na Biblioteca Virtual de Saúde (BVS) utilizando os descritores "acidente ocupacional com enfermagem", "saúde do trabalhador", "riscos dos quimioterápicos", "riscos oculares", "saúde ocular de enfermagem", "saúde ocular do trabalhador" e "riscos oculares ocupacionais" nas bases de dados das ciências da saúde em geral e nas áreas especializadas. Depois de aplicados os critérios de inclusão, chegamos à amostra de 126 publicações. A coleta de dados foi realizada entre março, abril e junho de 2009. Observou-se que a maior parte dos estudos foi realizada por enfermeiros doutores, mestres e graduados. Concluímos que contribuimos com o corpo de conhecimento da enfermagem e fortalecimento da profissão através da realização de pesquisas dessas produções, além da análise dos objetivos propostos por estes estudos, seguindo que analisem sua aplicabilidade à assistência e ao estudo dos conceitos.

DESCRITORES: Trabalhadores de enfermagem, Acidentes oculares ocupacionais, riscos dos quimioterápicos, saúde ocular de enfermagem, saúde ocular do trabalhador, risco do antineoplásico e Revisão integrativa.

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