



OCCUPATIONAL NURSING AND INTERVENTIONS WORKER'S HEALTH ENFERMAGEM DO TRABALHO E INTERVENÇÕES NA SAÚDE DO TRABALHADOR ENFERMERÍA DEL TRABAJO E INTERVENCIÓNEN EN LA SALUD DE LOS TRABAJADORES

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ABSTRACT

Objective: to analyze the scientific evidence about the Nursing interventions in worker's health. Method: it is an integrative review, performed in the LILACS, PubMed, CINAHL, Scopus and Cochrane databases, in addition to the SCIELO virtual library, from the question << *What is the scientific evidence about the Nursing interventions in worker's health?* >> We have searched for electronically available scientific papers written in English, Portuguese or Spanish. The analysis has included the characterization of studies and the nursing interventions, which were grouped into educational, assistential and administrative, and addressed the steps of the nursing process. **Results:** 13 papers were included in the sample. Of these, nine showed educational interventions, three had administrative and all of them presented assistential shares. **Conclusion:** it is necessary having the development of researches related to this theme and that glimpse the steps of the nursing process, in order to scientifically support the care. **Descriptors:** Worker's Health; Occupational Nursing; Nursing Processes.

RESUMO

Objetivo: analisar as evidências científicas sobre as intervenções da Enfermagem na saúde do trabalhador. **Método:** revisão integrativa, realizada nas bases de dados LILACS, PubMed, CINAHL, Scopus, Cochrane e na biblioteca virtual SCIELO, a partir da questão << *Quais as evidências científicas sobre as intervenções da Enfermagem na saúde do trabalhador?* >> Foram pesquisados artigos científicos disponíveis eletronicamente e redigidos nos idiomas inglês, português ou espanhol. A análise contemplou a caracterização dos estudos e as intervenções de enfermagem, as quais foram agrupadas em educativas, assistenciais e administrativas, e versaram sobre as etapas do processo de enfermagem. **Resultados:** 13 artigos compuseram a amostra. Destes, nove apresentaram intervenções educativas, três administrativas e todos assistenciais. **Conclusão:** é necessário o desenvolvimento de pesquisas referentes à temática e que contemplem as etapas do processo de enfermagem, de modo a apoiar cientificamente a assistência. **Descritores:** Saúde do Trabalhador; Enfermagem do Trabalho; Processos de Enfermagem.

RESUMEN

Objetivo: analizar las evidencias científicas sobre las intervenciones de enfermería en la salud del trabajador. **Método:** revisión integrativa, realizada en las bases de datos LILACS, PubMed, CINAHL, Scopus, Cochrane y en la biblioteca virtual SCIELO, a partir de la pregunta << *¿Cuáles son las evidencias científicas sobre las intervenciones de enfermería en la salud del trabajador?* >> Fueron investigados artículos científicos, disponibles electrónicamente y en los idiomas inglés, portugués o español. El análisis contempló la caracterización de los estudios y las intervenciones de enfermería, que fueron agrupadas en: educativas, asistenciales y administrativas y examinaron sobre las etapas del proceso de enfermería. **Resultados:** 13 artículos compusieron la muestra. De estos, nueve presentaron intervenciones educativas, tres administrativas y todos asistenciales. **Conclusión:** es necesario el desarrollo de investigación referente a la temática que contemplen las etapas del proceso de enfermería, de modo a apoyar científicamente la asistencia. **Descritores:** Salud del Trabajador; Enfermería del Trabajo; Procesos de Enfermería.

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INTRODUCTION

Health is a citizen's right that should be approached in a comprehensive manner, including in the workplace and should be ensured by means of actions that meet the subjects and are not just restricted to the formal description in official documents.¹ Due to having an indispensable role in the composition of the multiprofessional team, Nursing assumes a relevant role in achieving the goals that are targeted to worker's health. As a specialty of Public Health Nursing, Occupational Nursing is characterized by a set of educational and assistential actions that aim at interfering in the work-health-illness process, based in a range of skills for reaching it.²

To elucidate the role of Nursing in worker's health and define the actions that are of their responsibility in this context are the first steps to consolidate the role of the nursing professional in this field of action. In order to establish itself, not only as working class, but as a science, Nursing has sought support in Evidence-Based Practices (EBP), with the development of a care grounded in research findings.³ When considering the importance of research to healthcare practices, one of the methods used in EBP is the integrative literature review, because this enables the gathering and synthesis of research findings related to a particular theme and its respective deepening with sights to direct and support the practice.⁴

This study aimed at analyzing the scientific evidence about the Nursing interventions in worker's health, with a view to contributing to the nursing professionals in decision making and interventions in caring of the occupational health.

METHOD

In order to achieve the proposed objective, the method of integrative literature review was selected for conducting this study. For this purpose, we have adopted the sequence of the following steps: 1) Selection of the

guiding question, regarding the theme of review; 2) Determination of criteria for inclusion and exclusion of papers and selection of studies for composing the sample, 3) Definition of information to be extracted from the selected studies, 4) Analysis of the studies included in the sample; 5) Interpretation of results and 6) Review report.⁴

The development of this integrative review was based on the following guiding question << ***What is the scientific evidence about the Nursing interventions in worker's health?*** >>

The inclusion criteria that guided the selection of the sample were: being papers available electronically in their full versions, which addressed at least one nursing intervention in worker's health and written in English, Portuguese or Spanish. The exclusion criteria were: book chapters, dissertations, theses, stories, news, editorials and papers inconsistent with the questioning of the study. It should be highlighted that there were no restrictions in relation to the publication period or level of evidence of papers.

The pursuit for the studies took place in March 2012, through online access to the following databases: LILACS (Latin American and Caribbean Health Sciences), PubMed (Public/Publish Medline), CINHALL (Cumulative Index to Nursing and Allied Health Literature), SciELO (Scientific Electronic Library Online) Scopus and Cochrane. The survey was started from the words used as descriptors in MeSH (Medical Subject Headings): Worker's Health, Occupational Nursing and Nursing Processes, in the English language. There was an attempt to perform the crossing with the descriptors in the Spanish language in the LILACS database, because it is a base of the Latin American scope, but the crossing in this language did not produce any results.

We have held online access to databases to search the studies that comprised the sample by the electronic address of the CAPES periodical portal, which followed the sequence summarized in the flowchart contained in Figure 1.

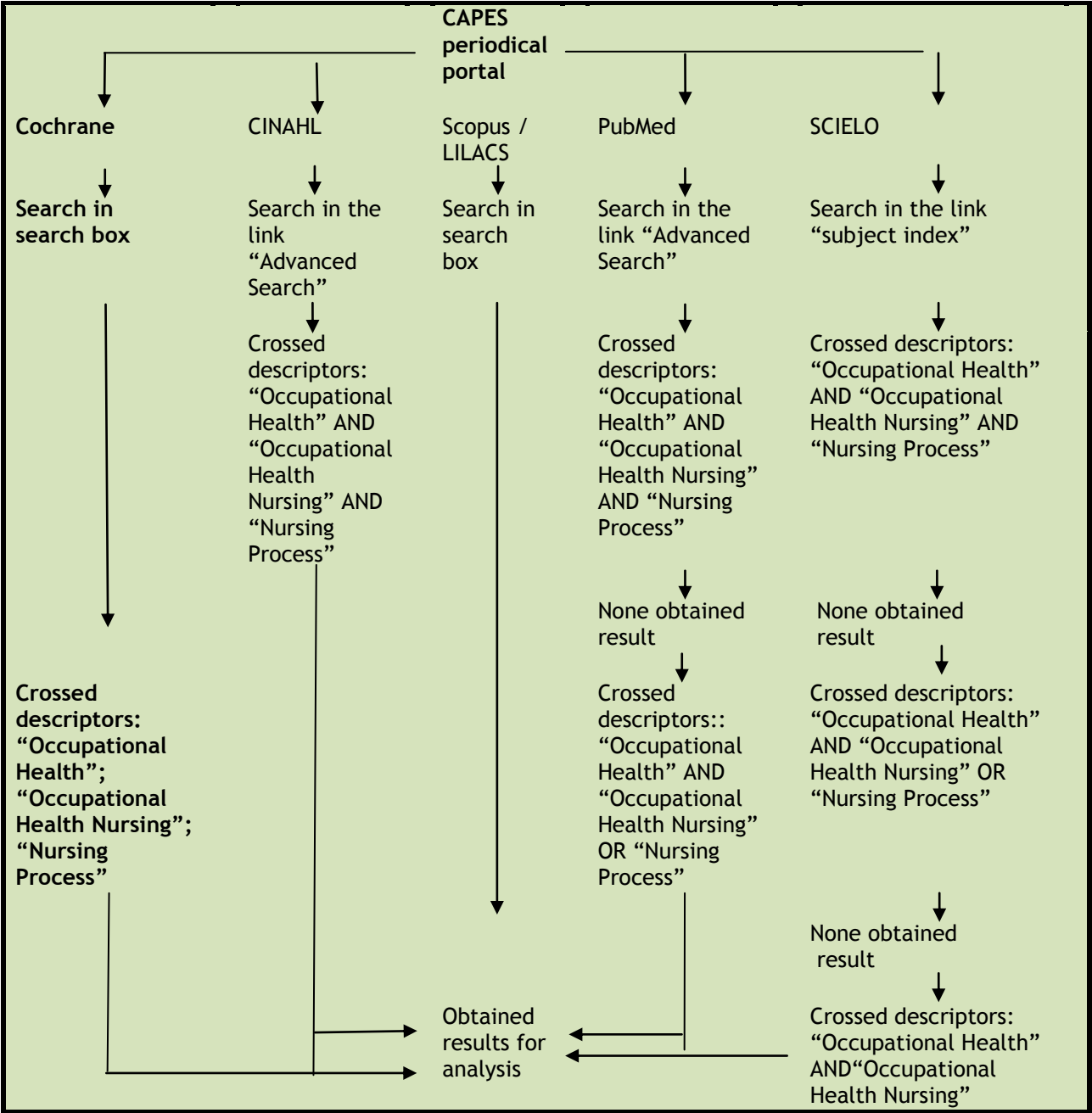


Figure 1. Flowchart of steps for collection of studies in databases.

The analysis of the obtained papers in each database took place through the use of an already validated instrument that has contemplated items relating to the identification of the paper, strictness methodological aspects of the study, as well as regarding its characterization.⁵ This instrument was used to analyze the papers and to assess their quality. The search in all

surveyed databases yielded a total of 699 papers, of which, after examination concerning the relevance of inclusion and exclusion criteria and reading their respective abstracts, 13 of them remained to compose the sample. The obtained results and the reason for exclusion of papers in each researched database are shown in Table 1.

Table 1. Selection of articles for conducting researches in databases according to inclusion and exclusion criteria.

Databases	Result	Unavailable full text	It does not address the theme	It does include nursing intervention	Repeated in other databases	Selected for the sample
CINAHL	28	17	02	02	–	07
Cochrane	286	275	11	–	–	00
Scopus	150	–	135	11	03	01
PubMed	215	02	187	18	07	01
LILACS	10	–	08	–	–	02
SCIELO	10	–	06	–	02	02
Total	699	294	349	33	12	13

Nursing interventions in worker’s health found in the selected papers were grouped into educational, assistential and administrative, in order to enable their approach and discussion.

RESULTS

Of the 13 papers that comprised the sample, four were written in Portuguese and nine in English. The publications of such

papers occurred in the period from 2001 to 2011.

As for the journals in which the studies were published, seven took place in Occupational Nursing journals, five in Nursing journals and one in a Collective Health journal. The occurred in unedited journals in Brazil totaled eight, of these, seven were published in the Journal of the American Association of Occupational Health Nurses (AAOHN Journal) and one in the Nursing Economic. The publications in Brazilian journals totaled five, of which, two were in the Latin American Journal of Nursing, one in the Collective Science & Health, one in the Gaúcha's Journal of Nursing and one in the Nursing Journal of the Anna Nery School.

As to the level of evidence of studies, three have level of evidence III; one has level of evidence IV and five have level of evidence V, being that such classification is not applied to the four remaining items. Regarding the type of study contained in the methodological approach of the papers that composed the sample, five papers were Experience Report, three were Quantitative, Exploratory and Descriptive Studies, three papers were

Updates, one was Reflective Analysis and one was a Case Study.

As to the research scenario, seven articles mentioned the study location and six papers did not apply this analysis criterion. The mentioned locations were: an office, a company, a rural area, a restaurant, a plant, a university and the field of civil construction.

The found studies showed Occupational Nursing interventions of educational nature in nine papers (69,23%), administrative in three (23,07%) and assistential in 11 (84,61%). It was possible to identify the steps of the Nursing Process in interventions in a such way that, of the 13 items that made up the sample of this review, 11 (84,61%) approached the data collection of Occupational Nursing in occupational health; only two (15,38%) papers addressed the nursing diagnosis in occupational health; six (46,15%) cited the planning of nursing care; all of them have contemplated the implementation stage and three (23,07%) showed assessment stage of the care of Occupational Nursing. To view the approach of such interventions, these will be summarized in Figure 2.

Intervention Type	Found interventions
Educational	Education towards the worker on: drug use; ⁶ correct behaviors for first aid actions; ⁷ relationship between cancer and labor activity and use of Personal Protective Equipment; ⁸ hearing impairment related to occupational activities; ⁹ immunization schedule update; ¹⁰ information necessary during the accomplishment of travels to work. ¹¹
Assistential	Supervision of nursing interventions; ⁶ investigation of workers' profile, accomplishment of mapping of the company related to occupational exposure to risk factors, medication administration and provision of emergency care; ⁸ immunizations update; ⁹ planning of interventions for workers performing travels to work; ¹⁰ investigation of current and past health status of workers; ¹¹ search for processes that cause and potentially contribute to diseases or accidents at work; ¹² identification of collective needs, assessment and record of the results of interventions; ¹³ inspection of conditions of use and operation of safety devices; ¹⁴ notification of diseases or work-related accidents and creation of protocols for routing workers to more complex healthcare services. ¹⁵
Administrative	Influence over the institutional culture for health; ⁶ acting as a manager in health; ¹⁴ motivation by means of arguments referring the decisions of local authorities for promoting health. ¹⁶

Figure 2. Educational, Assistential and Administrative interventions of the Occupational Nursing obtained from the papers that comprised the sample.

DISCUSSION

The average of publications of papers about Occupational Nursing interventions, found in this literature review, varies from one to a maximum of two a year, while the scientific production relation to worker's health shows a gradual increase over the years. ¹⁷ This disparity suggests that publications on nursing interventions in the work environment do not follow the growth of the field of worker's health in the scientific scope.

A plurality of locations where the studies took place, as pointed out by the methodology of the analyzed papers, confirms that the care provided by the occupational nursing worker is widely variable before the possibility of acting in various segments, companies, industries

and services.¹⁷ The broad spectrum of activity is directly proportional to the possibility and the necessity of obtaining scientific evidence in varied labor environments. With the limited access to studies relating to nursing interventions in worker's health, the amount of scientific evidence becomes insufficient to support the confirmation of the effectiveness and benefit of the offered assistential conducts or the accomplishment of any alteration therein, which brings prejudice to Evidence-Based Practices (EBP) in nursing care in occupational health.

Of the 13 papers totaling the sample, five were published in Brazilian journals, being that it corresponds to 38,46% of the found papers and reflects the scientific contribution of the Brazilian Nursing in the global scenario.

♦ Educational Interventions

The role of the nursing professional educator enables the transformation of the health-disease process through educational actions by means of new forms of interpretation of reality offered by learning.¹⁸ Of the nine papers that showed educational interventions of Occupational Nursing found in this study, four (44,44%) are of Brazilian origin. The existence of these items is an indicative that these actions are present in everyday of Occupational Nursing nationwide. This fact corroborates a study that compared the main activities of Occupational Nursing in Brazil and in American territory, which concluded that, despite the two countries having the assistential and administrative activities in common as the most performed, they differ because of the more developed third activity, given that, in Brazil, educational activities are in this position and, in the United States, coordinating activities rank third for the topic at stake.¹⁹

The papers that comprise the sample of this review addressed educational interventions in several circumstances, such as education towards the worker using drugs; guidelines and awareness about cancer and hearing impairment related to occupational activities; immunization schedule update and information necessary during the accomplishment of travels to work; in addition to health education regarding the correct behaviors for first aid actions in case of situations of urgency and emergency in the workplace.

According to the Brazilian Ministry of Health, education is a strategic tool for preventing drug abuse and reducing risk factors, as well as individual and collective vulnerability.²⁰ The worker who is a drug user has affected its productivity; hence, health education provided by occupational nurses makes the workplace as a part of therapeutic strategies. The abandonment of drugs does not antedate the insertion of the individual in the labor market. Accordingly, this space should be used for actions aimed at strengthening the cognitive capacity and collective coping strategies to increase the autonomy and the productive potential of workers.⁶

Estimates indicate that, in 2012, in Brazil, there will be twenty thousand new cancer cases related to labor activities and at least 19 types of malignant tumors, including skin ones, might be associated to the occupation and the work environment.²¹ The educational intervention, on the part of occupational nurses, with approach about risk factors,

prevention forms and early diagnosis of skin cancer are needed in everyday of workers, in order to reflect on the best quality of life and prevention of future health complications.⁷

The exposure of workers to high sound pressure levels might provoke complications of hearing nature. A study showed the effectiveness of educational actions targeted to workers exposed to occupational noise.²² Thus, the educator role of occupational nurses for such professionals should include awareness of the real need for use of Personal Protective Equipment (PPE), besides the training to correctly use it.⁸

In promoting the health of workers who participate in travels to work, Nursing intervenes by means of educational actions with approach about proper nutrition, medication use and identification of symptoms suggestive of injuries that offer risk to workers during the travels, in addition to stretching exercises, with a view to fostering the prevention of deep vein thrombosis and techniques for reducing stress on long flights.¹¹

♦ Assistential Interventions

The assistential interventions of Nursing should not be limited to the accomplishment of procedures in a random manner, but occur in interrelated steps that positively contribute for that the assistance occurs with the highest possible quality. The Nursing Process (NP) is consisted of five stages and should be conducted in a systematic and deliberate way in any environment, public or private, in which the nursing care takes place.²³

The first step of the Nursing Process, called data collection or investigation, is an organized and systematic process of data collection on several aspects of health and disease of the client and includes anamnesis, physical and diagnostic examinations. Although it is didactically regarded as the first phase of the Nursing Process, it continuously occurs and requires a holistic view of occupational nurses to identify the variables that affect the health and welfare of workers. With a global view, work environments should be explored in the pursuit for processes that cause and potentially contribute to diseases or work-related accidents. In order to better identify them, the observation of workers during the execution of their duties is a strategy to be added to the occupational anamnesis.¹²⁻¹⁵ It should be investigated the workers' profile, as well as mapping the companies related to occupational exposure to risk factors. Moreover, meetings with groups assist in identifying and prioritizing

collective needs. It is important to list anatomical and physiological abnormalities of workers that might be associated with some harm^{8-9,13}, as well as inspection of the conditions of use and operation of safety devices available in the sectors of the company.¹⁴

It is important to glimpse, during the worker's interview, the current and past health status, history of travels, used transport means, immunizations update, besides pre-existing factors that might be exacerbated by some adverse circumstance and suggest the referral of the employee to another component of the multiprofessional healthcare team. The use of statistical features to better interpret these data will contribute to the identification of needs of assistential intervention according to the hazards and to the health monitoring that becomes necessary in occupational health.¹¹

The working environment and the life experiences faced therein contribute to the suicide of workers.²⁴ The suicidal risk, whether it is diagnosed with a well done screening, might avoid its outcome. For that this recognition becomes possible, occupational nurses should assign a potential concern and identify, during the worker's interview, the risk factors associated to a given employee. In the occurrence of suicide of some employee, the nurse nursing professional should check its impact on the operation of the unit where the employee exercised his labor activity and seek information about the health and welfare of employees working in the referred sector and who are more likely to have been affected by such event.²⁵

The next step of the Nursing Process is the nursing diagnosis. This consists of a clinical judgment on the responses of the individual towards health problems and life processes, actual or potential. It provides the basis for the selection of nursing interventions and is necessary for the standardization of the registration of the worker's status.²⁶

Only two (15,38%) papers that formed the sample of this study addressed the nursing diagnosis in worker's health.^{6,8} Nonetheless, none diagnosis is mentioned or studied, since they are only reported as steps of the nursing process for that the assessment of nursing interventions successfully takes place. The existing gap regarding the nursing diagnosis characterizes a rupture of the steps of the Nursing Process, which leads to the breakdown of the bond that would continue the quality care and contributes to hamper

the scientific support of the care provided by means of Occupational Nursing's shares.

At the planning stage, nursing interventions are prescribed for each found nursing diagnosis and the goals to be achieved after the interventions. The approach of the aforementioned stage is mainly focused on reducing risks, since the disease or accident should primarily be prevented.^{9,14} It is important to consider the adherence by the target audience to the intervention that was planned¹⁰, because nursing care can contemplate from an individual until a collectivity.

For workers who perform travels to work, one should plan unique interventions for each situation. The creation of a schedule of immunizations needed for travels to each country, according to the endemic area, to give support in case of the onset of a urgent travel, allows that a strategy that a strategy of health intervention is quickly programmed and with less probability of mistakes.¹⁰

In the implementation stage, the previously planned interventions are put into practice by the nursing professional itself or might be delegated to nursing technicians or any person able to execute them. Their reliable execution to what was stipulated is essential for that the adjustments, when necessary, can be made with a view to reaching the established targets.²³

Before the knowledge conquered through its training, the nursing professional can suggest changes in the work environment and provide guidelines on the reasons for such changes, with clarifications that result in minimal effort and maximum coverage. Thus, it will contribute to a safe workplace, a healthy workforce, increased job satisfaction of employees and reducing absenteeism costs thereof.¹³

The development of preventive interventions, such as immunization, should take place in a tailor-made way to a given audience, with a view to respecting the uniqueness of each worker.⁹ Therefore, the dissemination of such actions also integrates Occupational Nursing's interventions. In order to enable nursing care actions, the prior notification of diseases or work-related accidents and the creation of protocols for routing workers to more complex healthcare services should happen with the aim of enhancing the recovery time and minimize lost days and, proportionally, the cost of removal of a labor.¹⁵

The supply of medications and emergency care shares should occur whenever necessary and it is up to the nursing professional to collaborate with the requirement of the correct use of appropriate personal protective equipment.⁸ Furthermore, occupational nurses can intervene in the prohibition of any travel to work, whether the employee shows some factor that puts him at risk during his removal.¹¹

During the assessment stage of nursing care, the partial or total achievement of goals is analyzed and the necessary adjustments are defined. This stage should guide the changes that are necessary and is vital for improving the quality of life and detection of trends in worker's health.¹¹ The occupational nurse is the only professional qualified to oversee the activities of the Nursing itself, since this professional holds the knowledge necessary to make adjustments in search of the desired success.⁶ The record of assessment is essential for that the nursing professional might have information to provide to workers or to trigger in case of a need¹³; it offers support to justify any performed alteration and still makes it possible to obtain statistical data for conducting surveys.

◆ Administrative Interventions

Because of the evolution of health assistential systems and the bureaucratization inherent to the act of caring, nurses had their role changed through additional responsibilities and activities that were delegated to the Nursing.²⁷ The administrative role of occupational nurses in the workplace is to act as a manager in the local health scenario.¹⁴ Thus, in the execution of administrative activities, occupational nurses can develop interventions that influence over the institutional culture and reflect in the local diseases' profile.⁶

The unity of knowledge relating to injuries prevention, health promotion and leadership, which subsidize Occupational Nursing, might be used to motivate business people's decisions in favor of health and safety of workers, from the exposure of arguments and identification of partners who have a common viewpoint.¹⁶

CONCLUSION

The integrative review referring to Occupational Nursing interventions in worker's health became possible to show as constant, but limited, the number of publications over the years on the theme within the studied field. This amount does not follow the

progressive growth of occupational health in the scientific scope.

Through the literature, we have identified the educational, assistential and administrative nursing interventions in worker's health. Assistential interventions argued about the steps of the Nursing Process. The implementation stage of the assistance was emphasized in most papers, to the detriment of the nursing diagnosis stage, which was less addressed in the surveyed studies.

It becomes necessary to develop researches that involve nursing interventions in work environments and contemplate the steps of the Nursing Process in occupational health. Thus, there will be the strengthening of scientific evidence to support the assistential behaviors performed, in order to confirm Evidence-Based Practices (EBP) in this area.

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