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NIGHT WORK AND OCCUPATIONAL HEALTH NURSING: INTEGRATIVE REVIEW O TRABALHO NOTURNO E A SAÚDE DO TRABALHADOR DE ENFERMAGEM: REVISÃO INTEGRATIVA

TRABAJO NOCTURNO Y SALUD EN EL TRABAJO DE ENFERMERÍA: REVISIÓN INTEGRADORA

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ABSTRACT

Objective: to analyze the nursing researches related to night work in the period of 2002 to 2012 and reflect the effects of night work on the health of the nurses. **Method:** an integrative review and a descriptive and exploratory research held in the databases from the Latin-American and Caribbean Center on Health Sciences (LILACS) in April 2012. It was used for exclusion criteria: researches published before 2002 out of the topic of research interest, the abstracts and the researches repeated on databases; it was included in Portuguese researches in full text. The data were analyzed using content analysis. **Results:** through the findings emerged two categories: scientific researches of nursing in relation to night work and the effects of night work in occupational health nursing. **Conclusion:** the analysis allowed us to observe the increasing impact about the effects of night work in occupational health nursing at psychic and somatic level. **Descriptors:** Occupational Health; Occupational Health Nursing; Night Work.

RESUMO

Objetivo: analisar a produção científica de enfermagem relacionada ao trabalho noturno entre 2002 a 2012 e refletir as repercussões do trabalho noturno na saúde destes trabalhadores. **Método:** revisão integrativa de literatura de caráter descritivo e exploratório realizada nas bases de dados da Literatura Latino Americana e do Caribe em Ciências da Saúde (LILACS) em abril de 2012. Utilizou-se por critérios de exclusão: trabalhos publicados antes de 2002 que fugiam ao tema de interesse da pesquisa, os resumos e os repetidos; incluíram-se trabalhos em português na íntegra. Os dados foram analisados através da análise de conteúdo. **Resultados:** mediante aos achados emergiram duas categorias: a produção científica da enfermagem em relação ao trabalho noturno e as repercussões do trabalho noturno na saúde do trabalhador de enfermagem. **Conclusão:** a análise permitiu observar a crescente preocupação com as repercussões do trabalho noturno na saúde do trabalhador de enfermagem a nível psíquico e somático. **Descritores:** Saúde do Trabalhador; Enfermagem do Trabalho; Trabalho Noturno.

RESUMEN

Objetivo: analizar la investigación en enfermería en relación con el trabajo nocturno entre 2002 y 2012 y reflejan los efectos del trabajo nocturno en su salud. **Método:** revisión integradora de la literatura descriptiva y exploratoria realizada en las bases de datos de los países latinoamericanos y del Caribe en Ciencias de la Salud (LILACS) en abril de 2012. Fue utilizado para los criterios de exclusión: las obras publicadas antes de 2002 que huyeron al tema de interés para la investigación, y repitió los resúmenes, se incluyeron en los documentos portugueses en su totalidad. Los datos se analizaron mediante análisis de contenido. **Resultados:** a través de los hallazgos se produjo dos categorías: la producción científica de la enfermería en relación con el trabajo nocturno y los efectos del trabajo nocturno en la enfermería de salud ocupacional. **Conclusión:** el análisis nos permitió observar la creciente preocupación acerca de los efectos del trabajo nocturno en la enfermería de salud ocupacional en el psíquico y somático. **Descriptor:** Trabajadores de Salud; Trabajo Enfermería; Trabajo Nocturno.

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INTRODUCTION

The sleep is characterized by reduced response to stimuli of movement and posture of each species, being fundamental to the human body, by the direct impact on aspects of human physiology and behavior, and when the sleep deprivation can result in damage to people's health.¹ Therefore, it is a biological phenomenon that influence the physiology of the human body, and its deprivation interferes directly in the digestive, circulatory, gastrointestinal, nervous, musculoskeletal systems, causing fatigue, decreased alertness, irritability, stress, migraine, nausea, bad humor and depression.²

In Brazil there is a portion of the economically active population who also worked in excess of the workweek hours prescribed by law, and still does the work night³. This is responsible for triggering the body of workers feeling of uneasiness, fatigue, moodiness, decreased attention and concentration.⁴

Regarding the organization of work, the nursing in a hospital environment is responsible to provides continuous assistance, however the night work activities are essential. This activity is detrimental to the lives of these workers, since it is a risk factor for the development of the disease.² To nursing staff, 12-hour shift daily work, including the day and night work, configures as a traditional way of work organization in Brazil.⁵

However, the night service workers eventually suffer a psycho physiological distress greater than workers who work during the day. This implication is justified by the fact that these professionals develop their activities at the time the bodily functions are decreased.^{6,7} Thus, the imbalances organic from the change in sleep patterns related to night work, interferes on quality of life of nursing because of physical, psychological and social factors.⁷

The sleep deprivation in a persistent character has a cumulative effect, which might lead to decreased mental capacity and physical fatigue inevitable in nursing workers, contributes the same way with the isolation, difficulty participating in social events and festivities, since no coincides with the activities of most other workers.⁸

Thus, these reflections emerged the following questions: What is the nursing scientific production in the period of 2002 to 2012 about night work? What are the effects of night work on nurse's health?

To address these issues, with the object of study the night work and its effects on health of nursing workers, it establishes as aims: To analyze the nursing researches related to night work in the period of 2002 to 2012 and identify the effects of night work on the health of this health's professional.

METHOD

The research based on integrative review, descriptive and exploratory discussion. We choose the literature review because is a systematic and critical review of the most important specialized literature published about a specific topic.⁹

For this, we make a description on the subject, interpreting the ideas that have been proposed by other authors in the literature, presenting evidence and arguments. The method chosen also aims to produce a wealth of knowledge and references that may support other studies.

We examined the researches indexed in the databases of the Latin American and Caribbean Health Sciences (LILACS), in the Virtual Health Library (VHL).

The search in databases was held on two separate dates, April 23 and April 24, 2012. We used the descriptors included: night work and occupational health nursing and occupational health.

We began the data survey by the choice of subject - night work and nursing - which is a significant problem that deserves to be investigated scientifically and has conditions to be formulated and defined.

Virtual Health Library- Lilacs	
Descriptors	Total
Night work	201 texts
Night work and occupational health nursing	51 texts
Night work and occupational health	52 texts
Night work and occupational health nursing and occupational health	20 texts

Figure 1. Scientific researchers found in the VHL, in LILACS database

After this first survey was selected the texts published from January 2002 to April 2012, i.e. over a period of 10 years. From these studies, were excluded those published before 2002 and not relevant to the subject, i.e., considered out to this research topic, the abstracts and repeated texts on databases. It was included scientific research and publications in Portuguese, as well as full texts and who responded to the research aims.

Following the acquisition of bibliographic texts we held on reading to identify information and data contained in the survey and establish a relation between these information e data and the problem of research, then to analyze the consistency of the information and data presented by the authors.

At the end of the analysis the potential bibliography consists of six texts in Portuguese, in full, and the data collected were analyzed in the light of content analysis.

RESULTS

Through the findings emerged two categories, the scientific researches of nursing in relation to night work and the effects of night work in occupational health nursing that will be discussed below.

DISCUSSION

The scientific researches of nursing in relation to night work

The study adhered to the analysis of 6 texts, 5 full articles and 1 thesis that fit in our proposed study.

By the texts, we sought to demonstrate the distribution of studies according to the journals in which they were published. Being observed that the 5 articles are indexed in the following journals: Anna Nery Journal of Nursing School, Cogitare Nursing, Journal of Nursing at the State University of Rio de Janeiro (UERJ). Regarding thesis, according to the institution where it was cataloged: Faculty of Nursing / UERJ.

Table 1 contains the quantitative distribution of the articles according journals published.

Table 1. Distribution of articles according journals published

Publication	Number of articles
Anna Nery Journal of Nursing School	2
Cogitare Nursing	1
UERJ Journal of Nursing	2
Total	5

Note the predominance of studies indexed in Scientific Journals, whose publication is in the Southeast region of the country. This fact is justified by the presence of most Brazilian

universities are located in this region through its economic and political importance, it is also a region of developing technologies and scientific knowledge.

Methodological approach	Research subjects
Quantitative-deductive reasoning	Nursing students
Quantitative-descriptive exploratory research	Nursing staff (nurses, practical nurses and nursing assistants) of night shift
Quantitative non-probabilistic approach (non-random)	Nursing staff (nurses, practical nurses and nursing assistants)
Literature Review	Analysis of the database LILACS in VHL
Qualitative	Night shift nurses
Qualitative-descriptive (field investigation)	Night shift nurses

Figure 2. Distribution of the texts according to the methodological approach and types of subjects

There is an emphasis on researches with quantitative methodological approach, using deductive reasoning, as well as research-type exploratory and descriptive. It is also noteworthy that the studies used as an instrument for data collection,

questionnaires, interviews and field research. With regard to the study subjects, we found nursing workers in various professions, nurses, practical nurses and nursing assistants, it is important to emphasize that only one study had subjects nursing students.

In the above data there is a predominance of quantitative research, exploratory and descriptive type. Thus, the selection of nursing staff in their various categories as subjects of research as well as nursing students.

Regarding variables: title, authors, and aims of the studies, we can observe the distribution in the following Figure:

Title	Authors/year of publication	Aims
The night work and nursing practice: a perception of nursing students	Lisboa, et al (2006)	To identify the perception of nursing students about the influence of night shift in occupational health nursing.
The night work and morbidity of nursing workers	Maynardes,et al (2009)	To identify the main health problems of night work nurses, according to their reports.
Chronotype and sleep deprivation among nursing workers of night service hospital	Malhães (2009)	To study the influence of individual chronobiological aspects on tolerance of nursing in a night service hospital
The night work and its impact on occupational health nursing	Lisboa, et al (2010)	To identify the scientific production of nursing on night work and analyze the implications of this shift in health workers.
The influence of night shift work on the quality of life of nurses	Neves, et al (2010)	To investigate the effects of night work on quality of life of nurses, as well as their reports about quality of life.
The night work and its impact on the health of nurses	Silva, et al (2011)	To present and discuss the changes in health perceived by nurses in a University Hospital due to the completion of night work.

Figure 3. Distribution of the texts according title, authors and proposed aims.

In chronological context, the publications date from 2006, 2009, 2010 and 2011, especially in the years 2002 to 2005, in which there are no researches. The nursing productions involving the topics are subsequent to 2002, which shows the late attention, by professionals, about the relevance of studies on this research subject.¹⁰

It can be seen in productions the interest in addressing night work in its different interfaces, and the impact on the disease process of nursing.

♦ **Physical, psychological and social repercussions of night work for nursing staff**

The night work is essential for nursing, however leads to health implications of nursing being a distress factor, resulting in the onset of co morbidities and physical and psychological symptoms that directly affect the quality of life of these professionals and their social relationships.^{7,8,10-1}

The quality of life is multidimensional and is related to health, housing, family life, leisure, work, among others. In this sense, the influence of the quality of work life (QWL) of night work nursing professional goes to meet their basic needs. The not adaptation to night work may trigger physical and mental consequences to health workers, causing discouragement and disengagement with their ativities.⁷

In sleep deprivation, the human body undergoes changes that directly interfere with the digestive, circulatory, gastrointestinal, and nervous systems. Thus, it is possible to

observe fatigue, decreased alertness, irritability, stress, migraine, nausea, moodiness and depression.² Disturbances in circadian rhythms cause uneasiness, fatigue, drowsiness, insomnia, irritability, and loss of mental alertness and performance, leading to decrease in efficiency.¹²

The night work is exhausting in health and disease process, resulting in significant symptoms such as varicose veins, fatigue, irritability and low back pain, which characterizes the physical and psychological damage to workers' health nursing.¹¹

By developing their activities at the time that the body is prepared for rest, nursing workers have internal conflicts, for working at the time the body is prepared for the rest, and external conflicts related to social life and isolation.⁸ In this scenario, it is noteworthy that night work is connected to several needs, among them the imprint of financial adequacy with the other employments, which sets the economic character of the issue, thus interfering in family structure, such as socializing with the children and other relatives.⁷

The need to work at night is connected to others researches, the children and the issue of salaries, which involve commitments beyond job.¹¹ The need for more one job, attempting to combine studies and providing education for children, are factors that influence the choice of night work.¹⁴

It is noteworthy that in most researches there is a predominance of female professionals, married and have children, which reinforces this professional category is

eminently female.^{7,11-2} Added to this is the question on gender, to be largely a female profession, women accumulate domestic duties and care for children, featuring a double or triple shift working. These factors relating to the profile of the workforce, making them more vulnerable to the negative effects of night work.⁸

In relation to chronobiological individual aspects on tolerance of nursing service night in the hospital, it is important that the allocation occurs in shifts according to chronobiology, however this should be parallel to other actions, such as a break for rest.^{13 4}

The consequences of night work on workers' health should be a concern of managers, institutions, employers, universities, researches associations and nursing staff in order to develop strategies to ensure better working conditions for these workers. It is important highlight that health professionals, concerned the nursing, represent quantitatively significant on the care, which requires decent job.¹⁵

The studies⁵ indicate the perception of nursing students on the night work, showing that this perception is linked to daily life together with workers who work in this period. The discussions guide on the negative effects of night work, especially in the physiological aspect, which confirms the need to broaden the discussion on graduation in order to educate future nursing workers.

Therefore, it is observed in productions the interest to approach the night work in its different aspects as the influence of the quality of life of workers overnight, the process of morbidity expressed by these workers, the effects of night work on health, the perception as night work and its impact on health, as well as the influence of chronobiology for allocation of the workforce.

CONCLUSION

In reviewing the scientific literature on night work in nursing in the period of 2002 to 2012, it can be inferred that there is a predominance of texts published in the journals of the southeast region of the country, as well as a gradual increase of publications involving this theme in recent 3 years.

The texts show a increscent concern about the influence of night work in nursing professional category, and the need to study their perceptions about the impact of this work on the disease process.

Were highlighted important issues regarding the creation of strategies that

enable a better adaptation of work to professional, whether through the consideration about the chronotypes of the workers for allocation, as well as strategies to rest, promoting healthy environments or measures that are directly related to work organization.

Concerning the ills and impact of this work in the lives of nursing staff, there is a perceived need for managers get awareness about the effects of sleep deprivation on the health of this professional.

Although the night work nursing is required, institutions must create mechanisms and interventions to minimize the effects of this shift in health workers.

Future studies should be encouraged in an attempt to propose strategies to improve working conditions and quality of life of the worker who works at night.

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