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INTEGRATIVE REVIEW ARTICLE

SLEEP AND NURSING CARE IN ADULTS IN CORONARY UNITS: INTEGRATIVE REVIEW

SONO E CUIDADOS DE ENFERMAGEM EM ADULTOS INTERNADOS EM UNIDADES CORONARIANAS: REVISÃO INTEGRATIVA

SUEÑO Y CUIDADOS DE ENFERMERÍA EN ADULTOS INGRESADOS EN UNIDADES DE CUIDADO CORONARIO: EXAMEN INTEGRADOR

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ABSTRACT

Objective: to evaluate the scientific production on sleep and nursing care in adults hospitalized in Coronary Care Units. **Method:** integrative review performed in LILACS, CINAHL, MEDLINE and SCIELO virtual libraries, with the descriptors sleep, nursing care, coronary care units and acute coronary syndrome. First, 1017 articles were found, but six met the inclusion criteria. **Results:** of the results found, one article described the quality of sleep of the patients and the others sought to implement practices that contributed to the improvement of sleep quality of the patients. **Conclusion:** nurses' evaluation of sleep is extremely important for patients hospitalized in Coronary Care Units and the use of Nursing Diagnoses related to sleep disorders can be an ally in the prevention of sleep disorders and in the improvement of nursing care. **Descriptors:** Sleep; Nursing Care; Coronary Care Units and Acute Coronary Syndrome.

RESUMO

Objetivo: avaliar a produção científica sobre sono e cuidados de enfermagem em adultos internados em Unidades de Cuidados Coronarianos. **Método:** revisão integrativa realizada nas bases de dados LILACS, CINAHL, MEDLINE e biblioteca virtual SCIELO com os descritores *sono, cuidados de enfermagem, unidades de cuidados coronarianos e síndrome coronariana aguda*. Primeiramente, foram encontrados 1017 artigos, mas seis atenderam aos critérios de inclusão. **Resultados:** dos resultados encontrados, um artigo descrevia a qualidade do sono dos pacientes e os demais buscavam implementar práticas que contribuísem para a melhoria da qualidade do sono dos pacientes. **Conclusão:** a avaliação do sono pelo enfermeiro é de extrema importância para o paciente internado em Unidades de Cuidados Coronarianos e a utilização dos Diagnósticos de Enfermagem relacionados aos distúrbios do sono pode ser uma aliada na prevenção das alterações do sono e na melhora da assistência de enfermagem. **Descritores:** Sono; Cuidados de Enfermagem; Unidades de Cuidados Coronarianos e Síndrome Coronariana Aguda.

RESUMEN

Objetivo: evaluar la producción científica sobre sueño y cuidados de enfermería en adultos admitidos en unidades de cuidado coronario. **Método:** revisión Integrativa realizada en la biblioteca LILACS, CINAHL, MEDLINE, y biblioteca virtual SCIELO, con descriptors de sueño, cuidados de enfermería, unidades de atención coronaria y síndrome coronario agudo. Primero se encontraron 1017 artículos, pero seis cumplieron con los criterios de inclusión. **Resultados:** de los resultados encontrados, un artículo describía la calidad del sueño de los pacientes y otros implementar prácticas que contribuyan a la mejora de la calidad del sueño de los pacientes. **Conclusión:** la evaluación del sueño del enfermero es de extrema importancia para el paciente ingresado en unidades de cuidado coronario y para trastornos del sueño y puede ser un aliado en la prevención de cambios en el sueño y en la mejora de cuidados de enfermería relacionados con el uso de diagnósticos de enfermería. **Descritores:** Sueño; Cuidados de Enfermería; Unidades de Cuidados Coronarios y Síndrome Coronaria Aguda.

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INTRODUCTION

Sleep is a peculiar physiological state divided into phases that alternate and differentiate physiologically according to the characteristics of brain waves, eye movements or even other changes such as muscle tone, body movement, respiration and electrocardiogram. It has two patterns: rapid eye movements, also known as REM sleep and absence of rapid eye movements or NREM. The latter is subdivided into four stages - I, II, III and IV. Normally, an individual begins sleep through stage I (NREM), passes to II, III and IV and, after approximately 90 minutes, enters REM sleep, which is usually shorter in the early evening. This, completes the first NREM-REM cycle. In eight hours of sleep, the individual goes through five or six cycles similar to this.¹

In order for an adult to have an optimal state of wakefulness, seven to eight hours of sleep with a limit of up to 5% of night interruptions are necessary in 24 hours.²⁻³ Studies have shown that poor continuity and sleep deprivation can lead to both psychological, and biological adverse effects, such as immunological, hormonal and neuro-cognitive changes.⁴⁻⁶ Difficulties in concentration, sensitivity to increased pain, anxiety, tension, nervousness, inappetence, intensified pain, slow wound healing, among others were, physical and cognitive impairments that may be present in individuals who have poor sleep quality.⁷ Hospitalized individuals often suffer from the scarcity and changes in the sleep pattern. Particularly, in this study, in patients in the Intensive Care Unit (ICU).⁸

In ICU, more specifically in Coronary Care Units (CCU), sleep disturbance may be multifactorial, and may give patients with Acute Coronary Syndrome (ACS), acute states of sleep deprivation, which may negatively influence the underlying disease.⁹⁻¹⁰ In addition, another study showed that patients with ACS hospitalized in CCU have difficulties in initiating and maintaining sleep and related the quality and quantity of sleep with the quality of life of these patients in the short and long term.¹¹

Patients admitted to CCU, with care-related sleep disorders, disease severity, noise, pain, circadian rhythm disorders, and mechanical ventilation may undergo immune changes, stress, fatigue, decreased concentration, and delirium.^{9-10,12-5}

During hospitalization in Intensive Care Units (ICUs), several factors can contribute to the interruption of sleep of individuals, such

as the disease itself, therapeutic and diagnostic procedures, environmental factors such as noise and illumination, and even the procedures performed by the team to the patient.^{14,16-9}

Measures such as the reduction of sources of noise, the implementation of the policy of silence, which includes the moderate volume of conversations, the reduction of monitors volumes, infusion pumps, changes in medication schedules and other nursing care, besides, establishing an uninterrupted time for the patient to sleep, whenever the patient's conditions allow, they can minimize the factors that cause sleep interruption in inpatients.¹⁹ In order to identify, analyze and evaluate the factors of greater relevance and frequency in the daily practice of nurses can help in planning and obtaining the improvement of sleep quality during hospitalization.²⁰

OBJECTIVE

- To evaluate the scientific production on sleep and nursing care in adults hospitalized in Coronary Care Units.

METHOD

Integrative review guided by the question "What has been produced about nursing care addressing sleep in adults hospitalized in the Coronary Care Unit in the world scientific literature? >>. Four databases were accessed: International Literature in Health Sciences (MEDLINE); Latin American and Caribbean Literature in Health Sciences (LILACS); *Cumulative Index to Nursing and Allied Health Literature* (CINAHL) and the *Scientific Virtual Library Electronic Library Online* (SCIELO).

Data collection was performed from December 1st, 2014 to December 5th, 2014, using the cross-referencing of sleep health sciences, nursing care, coronary care units and acute coronary syndrome.

The inclusion criteria for the selected articles were full articles that approached sleep as the main focus; applied research on human beings, adults and the elderly, hospitalized in coronary care units; articles published in English, Portuguese and Spanish and articles published since 1980, when the diagnosis of "Impaired sleep pattern" was introduced in NANDA I21, therefore, within the temporal limits of the last 34 years (1980 to 2014).

Exclusion criteria were letters to the editor, studies related to sleep apnea, and studies addressing sleep in any units other than coronary care units.

To identify the articles of the integrative review, we used the validated instrument proposed by Pompeo.²²

In order to carry out the analysis and synthesis of the articles included in the integrative review, the following aspects were elaborated: year and reference; periodic; method; objective and main results.

RESULTS

After a detailed search in the databases chosen, using the previously mentioned descriptors, 1017 articles in the databases and virtual library were researched (Figure 1).

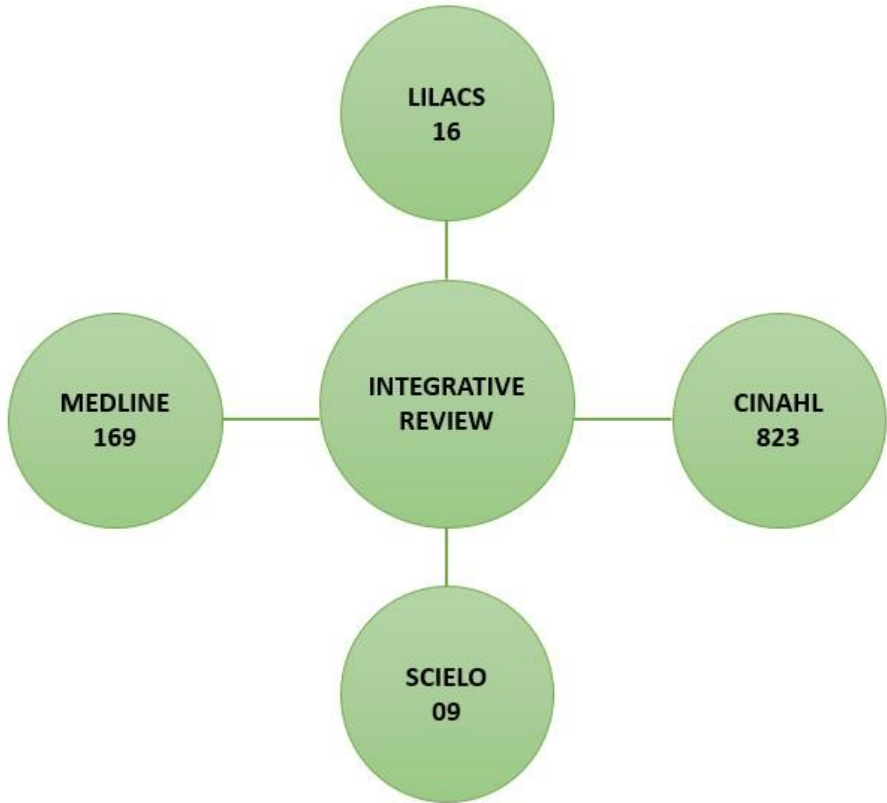


Figure 1. Distribution of the articles found and the databases and virtual library searched. Campinas (SP), Brazil, 2015.

Subsequently, using the inclusion and exclusion criteria detailed in the methodology of this review, six articles were selected for evaluation, which represented 0.58% of the total articles found, one of which was found in both the CINAHL database, and of MEDLINE.

Figure 2 presents the six (100%) articles selected according to year, period, method, objective and results obtained.

Year (Referência)	Journal	Method	Objective	Obtained Results
1992 ²³	Applied Nursing Research	Almost experimental study	To examine the influence of nitroglycerin administration on sleep and nocturnal angina in patients	- Administration of NTP every six hours resulted in a significant improvement in sleep quality when compared to administration every four hours. - No patient had nocturnal angina.
1998 ²⁴	American Journal of Critical Care	Experimental study	To determine the effect of two non-pharmacological treatments in sleep: the back massage and a relaxation session.	The group that received intervention of the back massage presented a sleep of better quality and quantity, when compared to the control group. The statistical comparison between the three groups did not present significant results.
2003 ²⁵	Dimensions of Critical Care Nursing	Experimental study	To verify the effects of relaxation and mentalization of sleep images of critical adult patients	There was no significant improvement in patients' sleep when compared to the experimental and control groups. However, within the experimental group there were significant differences in relation to the intervention, gender and time, with improvement of the patients' sleep.
2011 ²⁶	Journal of Clinical Nursing	Experimental study	To compare the effect of the device (ear plug) of sleep music on people with percutaneous transluminal coronary angiography in a cardiac care unit.	The participants in the experimental group had, significantly, a higher quality and quantity of sleep when compared to the participants in the control group.
2013 ²⁷	Enfermería Intensiva	Non-Experimental study	To describe the sleep quality of hospitalized patients in a CCU and the environmental factors that contribute to these disorders.	Most patients said they slept well and that the environmental factor that bothered them most was noise.
2014 ²⁸	Complementary Therapies in Clinical Practice	Experimental study	To investigate the effect of aromatherapy on the quality of sleep of patients hospitalized in CCU.	The mean scores of each domain of the applied questionnaire as well as the total mean in the experimental group were significantly lower than the means of the control group. Thus, Rose Damascene aromatherapy can provide significant sleep quality to patients admitted to CCU.

Figure 2. Distribution of articles according to year, period, method, objective and results obtained. Campinas (SP), Brazil, 2015.

Five (83.33%) articles were published in English and only one (16.67%) was published in Spanish. As to the design of the study, four (66.66%) were experimental, one (16.67%) was almost experimental and one (16.67%), was non-experimental. In relation to the periodicals, the articles were published in periodicals and different dates. The first identified article was published in 1992, with frequency from 2011.

DISCUSSION

An article (16.67%) aimed to describe the quality of sleep of the patients hospitalized in CCU in which the environmental factors that contributed to this disorder were. The results obtained were that among the 75 (100%) study participants, 66.7% reported having slept well and that the main disturbing factor of sleep was noise.²⁷ It is known that the high number

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of alarms and their level can put the safety of patients hospitalized in ICU at risk.²⁹

It is up to the nurse to stimulate the sleep of hospitalized individuals by recognizing the origin of the noise and the nursing practices that disturb sleep, taking measures to reduce these disturbing factors.¹⁹

The remaining articles (83.33%) sought to implement practices that contributed to the improvement of the sleep quality of the patients admitted to the CCU.

One of the articles evaluated the influence of nitroglycerin on sleep and nocturnal angina in patients with coronary artery disease (CAD). As a result, the administration of the medication, every six hours, allowed for a longer and better quality sleep. The results indicated that the administration of nitroglycerin every four hours interrupted the patients' sleep.²³ Thus, nurses should have a more sensitive look at the sleep of hospitalized individuals, interrupting their sleep only when it is really needed.⁷

Another experimental study, aimed to determine the actions of two non-pharmacological treatments in sleep: back massage and a relaxation session composed of an audio with background music, images and muscle relaxation. The results were that, the group that received intervention of the back massage presented a sleep of better quality and quantity, when compared to the control group. The statistical comparison between the three groups did not present significant results.²⁴

An experimental study also verified the effects of relaxation and imaging of sleep on critically ill patients. It was observed that when compared to the control group, the experimental group did not obtain significant differences in the improvement of sleep after being submitted to the interventions. However, it observed a significant difference in relation to the intervention, the genders and the time. The men responded more quickly to intervention than women did, but both achieved improved sleep scores.²⁵

In another experimental study that sought to relate the action of the ear plug that emitted music and its effect on sleep, the result was that there was a significant improvement of the sleep of the patients who were in the experimental group, when compared to the control group both in relation, to the quality of sleep.²⁶

The ear plugs used to decrease the volume of the environment and contribute to the improvement of patients' sleep can and should be offered to them by the Nursing team. However the plugs that emit music, besides

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making it possible to reduce the noise in the CCU, will also contribute to the patient's relaxation and sleep.²⁶

The effect of aromatherapy with damascene Rose, on sleep quality of patients admitted to CCU, was also investigated. The findings showed a significant improvement in the sleep quality of patients in the experimental group, in relation to the control group.²⁸

These and other alternative practices can contribute to the improvement of the sleep of patients hospitalized in CCU, thus, being able, to replace the use of medicines used for patients' insomnia and to avoid their adverse effects.²⁸

In addition, Intensive Therapy Unit staff must be aware of the need for sleep, its role in promoting sleep, and what factors interfere with sleep.¹⁸ Health professionals still do not have the attention they need for sleep disorders, especially the Nursing staff, who often, neglect this care. Adequate knowledge of the diagnosis, prevention, and treatment of complications that are associated with sleep disturbance may cause nurses to minimize sleep disturbing agents and thus, prevent the unwanted effects of poor sleep.

CONCLUSION

The correct evaluation of the sleep of the hospitalized patient in Coronary Care Units by the nurse is of extreme importance for the recovery of this individual. The recognition of the environment prone to sleep disorders, minimizing the occurrence of stressors, a systematic observation of the quality and quantity of sleep; the practice of non-pharmacological measures that promote relaxation; the reduction of anxiety and pain; the use of instruments that help to evaluate and implement measures for the improvement of the sleep of patients hospitalized in CCU should be performed by the nurse and the nursing team.

The realization of the Nursing Care Systematization stages can be a very important tool to promote the quality of sleep of patients hospitalized in CCU. The use of Nursing Diagnoses related to sleep disorders can contribute to an improvement in the practice of nursing care and be an ally in the prevention of sleep disorders.

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