

Promoting Interventions Of Sleep And Comfort In Intensive United Care Patients

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Abstract

Alterations in the normal sleep pattern are common in Intensive United Care patients and it can lead to psychological and physiological disfunctions which increase morbidity and hence mortality. Purpose: identify interventions to promote sleep and comfort in patients in a critical state. Methods: a study has been carried out which consists in systematic literature revision and has taken place where eleven items were selected. Results: the sleep deprivation is based on a multifactorial etiology where evidence shows that the main causes mainly focus on inherent aspects of the environment and health professionals' behavior. Conclusions: The interventions to be implemented aim at providing an environment that endures sleep and it recognizes its role in the patient's recuperation: stabilizing the nightly environment, reducing conversations between staff, reducing lights and the volume of the alarm calls and promoting relaxation techniques through massage, music therapy, therapeutic touch, mental image and relaxation.

Keywords: critical patients, sleep promotion and comfort.

1. Introduction

Sleep, rest and all of that is inherent, has fascinated man since antiquity, having its conception and understanding evolved over time. Their definition was always delicate and various were the authors who have tried to define it and examine it. Previously understood as a passive state of brain inactivity, resulting from the reduction of perceiving than to sensory stimuli, is today regarded as a phenomenon active, complex and reversible, in that there is the absence or reduction of the response to the stimuli of the environment with regard to the state of alertness. In other words, is a physiological condition that occurs on a cyclical basis, characterized by a period of inertia associated with the decrease in the cerebral activity, with a range of limited movements, involuntary, automatic and without purposes defined (Dang-Vu et al., 2009; Carskadon and Dement, 2011). It is still defined as a reduced level of consciousness that can be reversible in the presence of external stimuli (CIPE, 2011).

The World Health Organization (WHO) has recognized that the noise can cause damage to the health of people exposed to it as: disrupt the work, rest, sleep, the communication of human beings, hearing damage and cause reactions psychological, physiological and pathological in exposed individuals (WHO, 2011). Between multiple physiological damage, noise can cause cardiovascular disorders, reduction in arterial oxygen saturation, hearing loss, increased gastric secretion, stimulation of the pituitary-adrenal, amendment of physiological sleep, immunosuppression and reduction of healing (Christensen, 2007).

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The changes in the normal pattern of sleep are common in hospitalized patients in intensive care units and can lead to physiologic disorders and psychological that increase morbidity and mortality. The sleep disturbances based on a multifactorial etiology, there was no evidence that the main causes are focused on aspects inherent to the environment, the behavior of health professionals, impairing the quality of sleep and the recovery of the client. Studies reinforce the importance of raising awareness and educating health professionals for the need to implement measures to minimize the disturbing factors of sleep and improve the quality of sleep and comfort the customer admitted (Ugras, 2007; Nicolas et al., 2008 and Yava, et al., 2011).

Being sick and in a hospital are factors sufficiently disturbing sleep/rest, increasing when the person is admitted in intensive care unit, surrounded by equipment that emits sounds and alarms that agree constantly, often intubated orotraquealmente (real barrier to communication) and with limitation up to its automobiliação, discomfort, pain, heat or cold, without understanding if it is day or night, and with the perceiving than that the family is only present for short periods. Also the health professionals, who have the responsibility for the monitoring, hemodynamic stabilization and care develop activities that impose inevitable stimuli. Taking into account all these factors, it is understandable that the sick person has difficulty in maintaining an adequate rest and sleep.

The comfort is identified as one of the elements of nursing care, universally desirable, with continuing relevance (McIlveen and Morse, 1995; Tutton and Seers, 2003). Its origin dates back to 1859 and the first references arise with Florence Nightingale (1859, 2005), for whom the comfort was considered one of the principal objectives of the nursing practice. On the one hand, the comfort can be experienced by the person (to be understood as a relative state or a result of care) and, on the other hand it can be considered as an element of intervention of the nurse in the care process. It is important to realize that the process alone cannot happen as a separate entity, because it is only complete until comfort happens, and this may be looked at in a dimension of continuity (Apóstolo, 2009). Kolcaba (2003) considers the comfort as a result of primary health care, holistic and very complex, resulting from the nursing interventions. This comfort can be found in four contexts of experience: the physical context, with regard to bodily sensations that affect the physical state as the relaxation and rest, levels of elimination and hydration, balance hidroelectrolítico, cellular oxygenation, pain, positioning, different metabolic indicators and other aspects of treatment and medical conditions, the context psycho - spiritual, connected to the self-awareness, including self-esteem and self-concept, the sexuality and the meaning of life, it may also include a relationship with an outside entity or a superior being; the sociocultural context, referring to interpersonal relationships, family and social, including financial aspects related to the social life and the environmental context, focusing on aspects such as the light, the noise, the equipment, the temperature, the color, the artificial elements and the natural environment (Kolcaba, 2003). The contexts described interfere either with the comfort you want with the sleep pattern, which reinforces the importance of targeted interventions, improve the quality of care and consequently with the degree of patient satisfaction.

2. Material And Methods

A systematic review of the literature is one of the methods of research used in the practice of evidence-based and has its purpose is to gather and summarize results of research on a given topic in a systematic and orderly manner, contributing to the knowledge of the theme (Mendes et al., 2008; Benefield, 2003). The method used was based on PICO strategy (acronym for patient, intervention, comparison and "outcomes"). This way the inclusion of relevant information in different databases is maximised, focusing on the aim of the research and avoiding unnecessary lookups (Santos et al., 2007).

Observing with rigor all steps required in the use of this method, the time interval between April and May 2015, a protocol was developed for the identification of studies of interest to this work and that consisted of a search in the search engines: Ebsco and B-online, and on the following databases: CINAHL Plus, PubMed/ MEDLINE, LILACS, Scielo, Web of Science, ScienceDirect, Cengage Learning, Academia Search Complete, Psychology and Behavioral Sciences Collection, John Wiley & Sons, SportDiscus, The Joanna Briggs Institut, U.S. National Library of Medicine, Directory of Open Access Journals, Springer Science & Business Media and Repository of Scientific Open Access of Portugal.

For the identification of relevant studies a search strategy has taken place where the following descriptors have been used *critical patient AND sleep and comfort promotion*. After meeting all these protocol assumptions, the articles that did not meet the requirements were phased out, developing methodically a reductive process.

3. Results

After completed the protocol assumptions, the articles that did not meet the requirements were phased out developing methodically a reductive process. For the study 11 articles have been selected which are shown in Table 1.

Table 1: Description of selected studies and main results of investigations

Study	Author(s)/ Year	Main Results
E1: "Sleep Deprivation in Critical Illness: Its Role in Physical and Psychological Recovery"	Biren Kamdar/ Dale Needham/ Nancy Collop (2012).	-The sleep pattern of the patient in critical situation is an abnormal sleep, with frequent interruptions, circadian rhythms changed, fragmented sleep and reduction of REM sleep. -Survivors of UCI reported that sleep deprivation and the inability to sleep are among the 3 main sources of anxiety and stress during the internment in units and 19% suffered from symptoms of sleep disturbance clinically significant during the first year after hospital discharge. -These sleep disturbances are caused by factors inherent in critical illness and environmental factors, such as noise and light, psychological weakness, fatigue, abnormal secretion of melatonin and the operations themselves to care that are performed for the patient. -Strategies for improving the quality of sleep of critically-ill patients: minimizing disruptions to sleep at night and lifecycle maintenance wakefulness-sleep homeostatic, reduction of unnecessary noise and light, use of non-pharmacological measures facilitating sleep, such as earplugs, eye masks and relaxation techniques (for example music calm and massages), during the day promote light and optimize therapy.
E2: "The effect of a quality improvement intervention on perceived sleep quality and cognition in a medical ICU"	Biren B. Kamdar/ Lauren M. King/ Nancy A. Collop,/Sruthi Sakamuri/ Elizabeth Colantuoni /Karin J. Neufeld/Joseph Bienvenu/ Annette M. Rowden,/Pegah Touradji,/Roy G. Brower/Dale M. Needham/ (2013).	-The sleep in critical patients is characterized by frequent awakenings and approximately 50% of the sleep occurs during the day and report poorer quality of sleep, a source of anxiety and stress in Units compared with sleep performed at home. - Measures to promote sleep were applied: 1 ST phase: interventions during the night, interventions during the day to promote circadian rhythms normal, 2 ND phase: earplugs, eye masks and soft music and 3 RD phase: application specific medicines for the sick who are prevented from sleeping. -After the application of these measures to promote sleep the overall improvement of classification in relation to sleep quality did not reach statistical significance, but there have been significant improvements in the reduction of ratings of daily noise and on the incidence of delirium.
E3: "Factors Affecting Sleep Quality of Patients in Intensive Care Unit"	PBihari/ Doug McEvoy R/Matheson E, Kim S, Woodman RJ, Bersten AD (2012).	-70% of the sick persons were characterized by increasing the sleep performed in unit with lower quality compared with sleep performed at home. -It was possible to verify that the main factors that affect the quality of sleep in the unit were: noise and the lights. -The noise above all comes from: nursing interventions, oxygen and nebulization, analytical testing, administration of medication, conversations between professionals, from the professionals' mobile phones and phones of each unit from the alarms of fans and monitors. -With the implementation of measures to promote sleep and comfort during their stay in the unit the quality of sleep of patients improved to 40% compared with the beginning of hospitalization.
E4: "Sleep Disturbances and Fatigue in Critically Ill Patients"	Ellyn E. Matthews/ (2011).	-Evidence shows that a substantial proportion of patients who are hospitalized in Units of critical patients experience bad sleep quality, sleep latency prolonged and frequent awakenings. -Several months after discharge from the hospital, more than half of the survivors of UCI's continued to submit an interrupted sleep or sleep patterns changed in comparison with their sleep pre-hospital routine.

		<p>-Pre-existing sleep disorders, the underlying pathophysiology of the disease/injury, therapeutic interventions, medications and the intensive care unit (ICU), all of these factors mentioned above are the main factors that contribute to sleep disturbance and fatigue.</p> <p>-Aging increases the incidence of sleep disorders and changes in the sleep architecture, this risk factor is particularly significant for the sick units, since more than half of the admissions to ICUs are attributable to patients with more than 65 years.</p> <p>-The patients reported that the noise comes from specifically of conversations, but also from fans, alarms, TV, telephones and that all this leads to sleep interruption.</p> <p>-The non-pharmacological approaches to reduce sleep disorders are grouped into three areas: interventions cognitive-behavioral, cognitive therapy and complementary therapies and environmental strategies.</p> <p>-For acute disorders of sleep should be used for short periods, which must be administered in conjunction with non-pharmacological interventions.</p>
E5: "Filtering out the noise: evaluating the impact of noise and sound reduction strategies on sleep quality for ICU patients"	Karen J Bosma1/ Marco Ranieri (2009).	<p>-Five of the 11 studies shows that noise is the most important cause of sleep disorder while six other studies suggest that the noise is responsible for only a small proportion of sleep disturbance.</p> <p>-In the same way, the studies that examined the effectiveness of strategies to reduce noise suggest variable results, with improvements in sleep (ranging from 10 to 68 %).</p> <p>-The activities of noise and paying assistance to the patient accounted for less than 30% of awakenings, being that the cause of the remaining sleep disruption (70 %) were not identified.</p> <p>-The majority of people experience sleep disturbance due to a noisy environment, at some time in their lives, therefore, patients may be more likely to be assigned to the noise in the ICU to the poor quality of sleep.</p>
E6: "Sueño en el paciente crítico: una necesidad insatisfecha en la unidad de cuidado intensivo"	Diana Saldaña/ Luisa Achury (2010)	<p>-During the internment in UCIs, 50% of hospitalized patients presents significant sleep disorders.</p> <p>-These units for critical patients were classified as being hostile and aggressive places</p> <p>-The deprivation of sleep in critically ill patients, determines physiological complications, social and emotional, increases mortality and increases their stay in the hospital.</p> <p>-Some personal history may affect the sleep pattern of critically ill patients, such as: age, symptoms, psychological factors and the disease itself.</p> <p>-In relation to precipitating factors of sleep deprivation are checked: the environment in UCI, therapeutic interventions, concern with the state of health and medicinal drugs.</p> <p>-The critical patients, due to their state of health, require the continued use of biomedical devices (monitors, ventilators, infusion pumps) that generate sounds. In addition to these were identified other sources of noise, such as: telephone, computer, and conversations between health professionals.</p> <p>-Nursing Interventions that promote sleep and comfort: promote the comfort in positioning, making the environment more calm, establish standards of sleep and rest, to prevent and control pain, promote massages of comfort and educate the health team.</p>
E7: "El ruido y las actividades de enfermería: factores perturbadores del sueño"	Diana Saldaña/ Alejandro Reyes/ Marisol Berrío (2013).	<p>-Sleep deprivation, in critically ill patients, cause physiological complications, social and emotional, increasing mortality and the length of hospital stay in the units.</p> <p>-The average noise level in UCI is 60-115 dB, associated in 70 %, with a greater number of awakenings and less time to sleep. The majority of arousals are caused by abrupt increases of more than 10 dB.</p> <p>-The peak of decibels is related with family visits, physical structure,</p>

		<p>monitoring equipment and conversations from the health team.</p> <p>-The noise of other sick people was another highlighted factor, however with less frequency.</p> <p>-You must reduce the maximum levels of light during the night, avoid loud talk, remove all sources of noise monitors alarms and fans, avoid noisy work at night and promote a culture of change on the part of the team to work toward the development of a peaceful environment, by means of lectures on noise reduction and proper management of the physical structure.</p>
E8: "Non-pharmacological interventions for sleep promotion in the intensive care unit"	Hu RF/ Jiang XY/ Chen JM/ Zeng ZY/ Chen XY/ Li Y (2010).	<p>-The effectiveness of non-pharmacological interventions to improve sleep were considered inferior compared to pharmacological methods.</p> <p>-A wide range of non-pharmacological interventions have been used to improve the quality of sleep, including the therapy of music, massage, aromatherapy, yoga, muscle relaxation, mental imagery, acupuncture and the interventions cognitive behavioral.</p> <p>-Massage, music therapy, therapeutic touch, aromatherapy and mental imaginary relaxation bring comfort and a reduction in levels of stress and anxiety in critically ill and it promotes an improvement in sleep.</p> <p>-The environmental operations, such as the reduction of noise, the control of the lighting and time adequate uninterrupted sleep, are interventions which are safe and logical to help the sick to sleep.</p>
E9: "Effects of earplugs and eye masks on nocturnal sleep, melatonin and cortisol in a simulated intensive care unit environment"	Rong-fang Hu/ Xiaoying Jiang/ Yiming Zeng/ Xiaoyang Chen/ You-hua Zhan (2010).	<p>-The environment of the ICU is not conducive to sleep, the patients in the UCI consider that there is too much noise and bright lights which are harmful and uninterrupted.</p> <p>-Nursing interventions were more disruptive than the noise or light.</p> <p>-The noise, the light and the activities of nursing patients represent less than 30% of arousals and awakenings.</p> <p>-The use of earplugs and eye masks can have benefits in some patients of UCI, allowing a reduction of sleep disorders.</p>
E10: "Development and validation of a questionnaire for quantitative assessment of perceived discomforts in critically ill patients"	Pierre Kalfon/ Olivier Mimoz/ Pascal Auquier/ Anderson Loundou/ Rémy Gauzit/ Alain Lepape/ Jean Laurens/ Bernard Garrigues/ Thierry Pottecher/ Yannick Mallédant (2010).	<p>-The critical patients are exposed to various situations which can be very stressful and experience high levels of pain and discomfort that promote sleep deprivation.</p> <p>-For these patients the highest score of discomfort during the internment was directly related to sleep deprivation and the presence of pipes, wires, cables and headquarters.</p> <p>-In addition to these factors the deprivation of sleep and comfort was also related to: the noise, the intensity of the light, ventilation, insulation, anxiety and pain.</p> <p>-It is important to correct and minimize the main sources of discomfort through interventions in the team in order to avoid the discomforts senses mentioned by patients.</p>
E11: "Sleeping on a problem: the impact of sleep disturbance on intensive care patients"	Lori J Delaney/ Frank Van Haren/ Violeta Lopez (2015).	<p>-The etiological causes of sleep disorders are considered multifactorial, although environmental factors, i.e., noise, light and interactions of clinical care are referred to.</p> <p>-The noise generated from the alarms associated with the intensive monitoring of patients presents frequency greater than 70 dB.</p> <p>-The main source of noise in clinical environment has been attributed to the behavior of professionals, responsible for more than 50% of noise sources, with a noise level of 84 dB.</p> <p>-13.9% of the nursing interventions during the night could be omitted in a safe manner and, in turn, reduce sleep disturbance of patients.</p> <p>-Interventions should be implemented in order to provide an environment that supports the sleep and recognizes its role in the recovery of the sick: stabilize the nocturnal environment, reduce conversations between staff, reduce the brightness and volume of alarms of the monitors and promote relaxation techniques.</p> <p>-Eye masks and earplugs can reduce noise and brightness therefore increasing a better structured sleep among patients who are in the UCI.</p>

4. Discussion Of Results

All the analyzed studies on this topic show quite consensual as regards the effects of sleep deprivation in critical patients admitted to intensive care and the factors that trigger, however the interventions that promote sleep and comfort of the patient in critical situation are not as consensual in some studies.

It can be seen that the vast majority of patients in these services present deprivation of their normal sleep pattern. According to the study E4, the evidence shows that a significant percentage of patients admitted to critical patients experienced a poor quality of sleep, a latent period of prolonged sleep and frequent awakenings. Already in the study E2 it was possible to verify that sleep in critical patients is characterized by frequent awakenings and approximately 50% of the sleep occurs during the day; the patients report consistently worse sleep quality, a source of anxiety and stress in the units compared with the sleep performed at home and classify it as a poor sleep. In line with these data, is the study E3 which shows that 70% of patients who slept in the unit (IUC) with poorer quality compared with sleep performed at home. Facts that are in agreement with the study of Tamburri (2004), where it is stated that sleeping in a hospital is poorer compared with sleeping at home and sleep disturbances are more nerve-racking for the patient, because there are rates of 22% of sleep deprivation for patients in the wards and 61% in patients hospitalized in units. The study E6 further states that in the course of their stay in the units, 50% of hospitalized patients have significant disturbances of sleep, being these units classified as being hostile and aggressive places and this sleep deprivation led, in critically ill patients, to physiological, social and emotional complications, increased mortality and the length of time spent on these units. Similarly in the study E7 it was found that sleep deprivation in critically ill patients, competes for the appearance of physiological, social and emotional complications, increasing mortality and the time of permanence in these UCI's. The study E4 concludes that the effects of sleep disorders and fatigue leads to physical functioning and cognitive, instability of mood, emotional suffering and amplification of symptoms, and this is a factor of significant stress in the ICU that can adversely affect recovery. Even in this context, the study E10 means that the critical patients are exposed to various situations and nerve-racking experiences. The patients experienced high levels of pain and discomfort, which promote sleep deprivation, being that for these patients the highest score of discomfort during the internment.

The results of these studies corroborate the idea of Dillon (2007), which stated that the fact of not sleeping or little sleep causes fatigue, stress, depression and decreases the activity of the immune system, increasing the risk of infection diseases. The study E1 says that the critically-ill patients are characterized by a sleep classified as being abnormal, with frequent interruptions, altered circadian rhythms, fragmented sleep, reduction of REM sleep and the survivors of UCI reported that sleep deprivation and the inability to sleep are among the three main sources of anxiety and stress during the internment in units for critical patients. These findings are in agreement with Honkus (2003), as it confirms that in these contexts the sick take a long time to fall asleep and sleep is just by stages I and II NREM sleep, reinforcing that the hospitalized patients in units spend 40 to 50% of total sleep time in constant awakenings, leaving only 3 to 4% for a sleep perfectly repairer. Another important feature, the sleep after the patient is discharged from the units, is referenced in the studies E1 and E4. The study E1, 19% of the survivors of internment in units suffered from symptoms of sleep disturbance clinically significant during the first year after discharge of these units and the study E4, several months after hospital discharge, more than half of the survivors in the UCI has continued to experience an interrupted sleep or sleep patterns changed in comparison with their routine prior to hospitalization.

With respect to the main factors impeding the normal sleep in the context of critically-ill patients it was possible to verify the study E9 that the environment of the ICU is not conducive to sleep. The sick of UCI consider that there is too much noise and bright lights. In all studies the main etiological causes of sleep disorders were directly related to environmental elements, i.e. the noise, the light and the interactions of clinical care. However, in addition to these main elements were referenced in the following studies: the study E11 gave importance to medicines and acute illness that had caused the hospitalization, in study E1 the factors inherent in critical illness, such as the severity of the disease and the need for mechanical ventilation, sedatives, psychological weakness, fatigue and abnormal secretion of melatonin, would also be factors impeding the default of normal sleep.

At work E4 sleep disorders pre-existing, the underlying pathophysiology of the disease/injury, therapeutic interventions and drugs were considered to be important in this context, it is important to note that this study reinforces the importance of the age factor, i.e. aging increases the incidence of sleep disorders and changes in sleep architecture, this risk factor is particularly significant for clinicians of UCI, because more than half of admissions to ICU's are attributable to patients with more than 65 years. This is a fact of great importance, because it is important to know that our population is increasingly aging.

The study E6 returned to strengthen the age, symptoms, psychological factors, the disease, the concerns and the state of health. Finally, in the study E10 it was referred some important barriers which make normal sleep quite difficult and these barriers are: the presence of pipes, wires, cables, headquarters, ventilation, isolation, anxiety, pain, facts that corroborate with a study carried out by Morgan and White (1983) in which it was possible to verify that 80% of the nurses feel that the care contribute to the sleep deprivation of the sick, 20% mentions that the care provided are an absolute cause for the sleep deprivation of sick, 66% believes that the pain contributes to that if there are disruptions in sleep and 20% feel that the anxiety and concern for the sick are major causes for sleep deprivation and disruption during this. I would emphasize, however, a factor that was only mentioned in this last study: the headquarters.

As regards the main sources of noise one can verify the study E3, that the noise came from the oxygen and nebulization, analytical testing, administration of medication, conversations between professionals, mobile phones of professionals, alarms of fans and monitors. The participants of the study E4 reported, also, that the noise comes specifically from conversations, fans, alarms, TV and telephones. The study E6 refers to the fact that the alarms of equipment constitute the main source of noise, it also refers other noises that bother the patients: such as a telephone, computer, and conversations between health professionals. It is to be noted that the noise causes increased secretion of norepinephrine, which increases the risk of developing complications for the patient. Already the study E7 states that the average noise level in UCI is 60-115 dB, associated with 70 %, with a greater number of awakenings and less time to sleep. The majority of arousals are caused by abrupt increases of more than 10 dB, with the peak of decibels related: family visits, the physical structure (60% came from the noise of the door opening of the ICU), 77.5% of monitoring equipment and conversations between the various elements of the team. The noise of other sick people was another dirty stood out, although less frequently.

These facts corroborate a study conducted by Lamprey and Santos (2005), in which it was possible to conclude that the noise is the factor that most disturbs sleep and alarms of the equipment are the main source of noise, followed by the conversations between health professionals. However in the study E5 the activities of noise and patient care accounted for less than 30% of awakenings, while the cause of the remaining 70% were not identified. In the study E11 the noise generated from the alarms associated with the intensive monitoring of patients, with frequency greater than 70 dB, was the main source of noise in the environment and was assigned to the the staff's behavior, responsible for more than 50% of noise sources, with a noise level of 84 dB. In this context the World Health Organization recommends that the level of noise within the hospital wards should not exceed 30 dB at night, in order to reduce the sleep disturbances. Yet, according to the latter study, it was found that 13.9% of the nursing interventions during the night could be avoided in a safe manner and, in turn, reduce the disturbance of the sick. This suggests that a number of nursing activities is carried out as a routine, and can be adjusted. It highlights the need to critically evaluate the need for some of the care provided and consider making adjustments to the workflow, in order to promote the night sleep. These data are in line with that suggested by Olson et al. (2001); evaluate the sleep pattern of the customer, implement strategies to prevent changes in sleep pattern, create an environment which facilitates sleep and rest, create a protocol "quiet time" and implement measures that promote rest and sleep.

In relation to the interventions that promote sleep and comfort of the patient in critical condition were frequent in the studies analyzed measures such as reduction of light and noise during the night, massage comfort, positioning of comfort and, in particular situations, the use of specific therapy indicated for the purpose. In this way according to the study E1 the strategies to improve the quality of sleep of critically-ill patients would be: minimizing disruptions to the sleep during the night and lifecycle maintenance wakefulness-sleep homeostatic, reduction of noise and of unnecessary light, use non-pharmacological stimulation of sleep, such as earplugs, eye masks and relaxation techniques (quiet music and massage), promote the light during the day and optimize therapy, facts that corroborate with Clark, 1998; Pinheiro (1998), Pepper (2000), Almeida and Duarte, 2000 and Order of Nurses (2010).

In this line of thought arise the studies E7 and E9 that reinforce the need to promote the reduction of noise levels and reduce, to the maximum light levels during the night, avoid loud talk, remove all possible sources of noise from alarms monitors and ventilators (making the necessary adjustments) and avoid the work which can cause more noise during the night.

The study E4 also refers to the approaches non-pharmacological to decrease sleep disorders are grouped into three areas: interventions cognitive-behavioral strategies (behavioral, regular schedule of sleep, control of stimuli), cognitive therapy (education, relaxation, monotherapies, massages, therapeutic touch, relaxation and music therapy), complementary therapies and environmental strategies (decrease of light, noise and interruptions during the night) and that before starting new medication to sleep in patients in Intensive Care, one should resort to non-pharmacological measures. Already Nightingale (1989) considered the sleep as being of extreme importance for the restoration of the sick person and tied to sleep disturbances the aspects relating to the environment. The studies E11, E8 and E9 have found benefits in the use of eye masks and earplugs having beneficial effect on cancellation of the effect of the environment of Intensive Care, improving the sleep architecture of the sick. According to the study E8, which maintains the same order of ideas of previous studies also adds a wide range of non-pharmacological interventions that have been used to improve the quality of sleep, including massage, yoga, muscle relaxation, mental imagery, acupuncture, music therapy, therapeutic touch, relaxation and mental imagery, interventions that seem to comfort and reduce the levels of stress and anxiety in critically ill patients, which is susceptible to lead to improvement in the sleep pattern.

The same is translated by study E3, in that with the implementation of measures to promote sleep and comfort (reduction of noise, nighttime brightness, massages of comfort) during the stay in the unit for critical patients, the quality of sleep of patients improved to 40% compared with the beginning of their hospitalization. On the other hand, the study E2 reveals that after implementation of measures to promote the sleep applied in three stages; 1ST phase: environmental operations night, turning off TV's, dimming lights of corridor, grouping activities of care, interventions during the day to promote circadian rhythms and normal nocturnal sleep included raising the curtains of the window, preventing sonos daily, encouraging the mobilization and minimizing the consumption of caffeine; 2ND phase: earplugs, eye masks and soft music; 3RD phase: administration of specific medications for patients with sleep deprivation. The overall improvement of classification of sleep quality did not reach statistical significance, but there have been significant improvements in the reduction of the ratings of daily noise and on the incidence of delirium.

Similarly, in the study E5 the effectiveness of strategies to reduce noise suggest variable results, with improvements in sleep that vary from 10 to 68 %. Finally, the study E8 also reveals that the effectiveness of non-pharmacological interventions to improve sleep has been considered inferior to pharmacological methods. However, these studies have shown the limitations of the realities in which they are inserted. We know beforehand that the patients have some type of physical discomfort, emotional or pain and in all nursing interventions should be given priority to the promotion of their comfort. Whenever possible, the nurse must plan interventions that will reach a satisfactory pain relief, with the adoption of non-pharmacological measures. In this way it can be noted that there is a direct relationship between the sleep and the comfort of the sick and it will be the responsibility of the nurses to use the different ways of promoting comfort at your fingertips, and the moment of rest/sleep exists only when there is some comfort.

5. Conclusions

It is possible to conclude from this study that the critical patients in hospital in a specific unit suffer from a change in their sleep pattern, as a result, mainly, from noise, from light and from all the interventions available. In view of the results of the studies analyzed, it can be noticed that the sleep in an intensive care unit is perceived as being insufficient, despite being something essential for the recovery of the person, and therefore should be preserved and encouraged. The most recent literature points to several factors that influence the quality of sleep/rest, highlighting the inherent in the person, the inherent to the professionals and the intrinsic to the environment of a unit to care for critical patients. The findings show that the most common factors identified in the literature were: the noise, the brightness, the interventions of the professionals and the pain. It is important to correct and minimize the main sources of discomfort through interventions in the health team.

With respect to interventions that promote sleep and comfort measures such as reduction of light and noise during the night, massage and positioning of comfort and in particular situations feature the specific therapy indicated for the purpose were the strategies were more verified. However, in two of the 11 studies analyzed, these measures did not reach statistical significance, and that, in a third study, the effectiveness of non-pharmacological interventions to improve sleep has been regarded as being lower than the pharmacological methods. To highlight that three studies analyzed that there were benefits in the use of eye masks and earplugs having beneficial effect in the annulment of the effect on the environment of intensive care, improving the sleep architecture of the sick. The promotion of a culture of change on the part of the health team is fundamental knowing the negative consequences of the absence of a standard of proper rest.

In this sense there is a need for appropriate coordination between the members of the multidisciplinary health team, since the nurse is the element that can best promote the therapeutic environment, the care and the interventions that allow for longer rest periods and of better quality. Reducing lights and noises gives each person the possibility of a better quality sleep. The professionals awareness for a more in-depth reflection on the importance of sleep may lead to the establishment of bundles guiding strategies and care with the emphasis on improving quality of care.

This study led to a reflection of the practice of nurses in relation to critically-ill patients during which were opening up new weaknesses in knowledge about the subject and giving margin to the elaboration of new research. There is an urgent need to further clinical investigations to identify effective strategies to reduce the impact of the clinical environment on the ability of patients to sleep and to improve understanding between the impact of sleep deprivation and the results in the clinical situation of a patient. In addition, future research should be directed to the identification of a method of monitoring the sleep needed and feasible to facilitate the ability to implement strategies that promote sleep, rest and recovery and simultaneously decrease the complications associated sleep deprivation.

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