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# PAIN IDENTIFICATION BY NURSES IN ADULT PATIENTS IN INTENSIVE CARE: STATE OF THE ART IN BRAZIL

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**Abstract:** Pain is an unpleasant sensation or emotional experience, whether or not associated with tissue damage, of sudden or slow onset, of any intensity. For the most part, because it is a sensation, the patient's verbal report is considered essential for diagnosing pain. However, most patients admitted to intensive care remain sedated or in a coma, making this report impossible. Thus, this study aimed to identify the state of the art on pain in adult patients in intensive care in nursing studies in Brazil. This is an integrative review, whose data collection was carried out in January 2022. Using the descriptors pain, nursing, intensive care and the Boolean connector and, a search was carried out in the Virtual Health Library (BVS). Five articles were considered for analysis. All of them have an author body composed of nurses and nursing students and are randomly distributed over the time established for analysis. From the meaning units present in the analyzed studies, three categories emerged: I- Acute pain in intensive care; II- Non-verbal pain assessment of adult ICU patients; III- Pain for patients in palliative care in intensive care. It was concluded that, although there are some pain assessment methods in intensive care patients, they are still not sufficient for an adequate pain management and, when relevant, the nursing professional's lack of information combined with the lack of adequate protocols for management. of pain in institutions contributes to the neglect of this situation.

**Keywords:** Pain, nursing, intensive care.

## INTRODUCTION

According to the International Association for the Study of Pain (IASP), pain can be conceptualized as "an unpleasant sensory and emotional experience associated with, or similar to that associated with, actual or potential tissue damage" (RAJA et al, 2020).

The North American Association for Nursing Diagnoses - N*orth American Nursing Diagnosis Association* (NANDA) - defines pain as an unpleasant sensation and emotional experience, whether or not associated with tissue damage, of sudden or slow onset of any intensity, and classifies it into two distinct forms: acute and chronic. Acute pain is pain that lasts less than three months and is expected to end. Chronic pain, on the other hand, is pain in which there is no end in sight and persists for more than three months (ERSTAD et al, 2009).

There is a consensus in the literature that self-assessment is the most appropriate way to assess pain. Thus, the patient capable of communicating, verbally or not, must be questioned about the existence of pain, its location, onset, intensity, relief factors, among others.

Unfortunately, it can be said that pain is a common experience in patients admitted to intensive care units and the complications caused by it can bring great harm to the patient, both in the short and long term (PUNTILLO et al, 2018).

A common characteristic of patients admitted to the Intensive Care Unit (ICU) is the severity of their health condition, mostly sedated, using mechanical ventilation, therefore, unable to express themselves effectively. For these cases, there are not enough specific neurobiological parameters so far to decipher non-verbal communication and the options fall on some available scales that assess behavioral and psychological aspects. However, the reliability and validity of these instruments remain undefined (SOUZA et al, 2021).

Pain is extremely impactful in an individual's life to such an extent that it has been considered by the American Pain Society as the fifth vital sign.

Among its impacts we can mention the presence of anxiety and depression, impairment of sleep quality, mood, activity, appetite and energy. It can also lead to physical and functional disability, increase the degree of dependence on other people and trigger social and work withdrawal, changes in sexuality, changes in family dynamics, economic imbalance, hopelessness, feeling of death, among many others. Unrelieved pain can be a source of sleep deprivation, generating anxiety, agitation, fatigue and disorientation (DELLAROZA, PIMENTA & MATSUO, 2007; ARAUJO & ROMERO, 2015; MELLOH et al, 2009).

Persistent pain can provoke a stress response resulting in tachycardia, increased myocardial oxygen consumption, hypercoagulability, immunosuppression, and catabolism. Muscle response with spasms and contractures around the painful region can lead to pulmonary dysfunction by limiting diaphragmatic and thoracic expansion (AHLERS et al, 2008).

Identifying pain and its multiple components is essential for nursing. Nurses, especially those working in the ICU, must have the necessary knowledge to identify pain, as well as manage it correctly. Therefore, it is up to the nursing team to identify pain effectively in order to avoid the negative psychological and physiological impact on the patient who feels it (IASP, 2005).

From the above, it is possible to perceive the need to expand knowledge about the adequate management of pain, especially in patients who do not express themselves through speech or gestures. This study therefore aims to identify the state of the art on pain in adult intensive care patients in nursing studies in Brazil.

## METHODOLOGY

This is an integrative review, whose data collection was carried out in January 2022. A thorough search for the object of study was carried out, that is, pain of adult patients hospitalized in intensive care units, in the Virtual Health Library (BVS) using the following vocabulary terms from the DeCS (Health Science Descriptors) from the Latin American and Caribbean Center for Health Information and MeSH (Medical Subject Headings) from the National Library of Medicine of the United States: pain, nursing, therapy intensive and for the crossing of the data, the connector was used booleano and.

The relevance test consisted of inclusion criteria - consisting of full text, publications from the last 5 years (2017 to 2022), Portuguese, English and Spanish languages, country of affiliation Brazil - and exclusion criteria - consisting of repeated articles.

The flowchart shown in figure 1 presents the step-by-step procedure for obtaining the data.

Data analysis was performed according to the steps of the integrative literature review: 1. identification of the topic and selection of the hypothesis or research question for the elaboration of the integrative review, 2. establishment of criteria for inclusion and exclusion of studies/sampling or search in the literature, 3. definition of the information to be extracted from the selected studies/ study categorization, 4. evaluation of the studies included in the integrative review, 5. interpretation of results and 6. presentation of the review/synthesis of knowledge (MENDES, SILVEIRA & GALVÃO, 2008).

## RESULTS

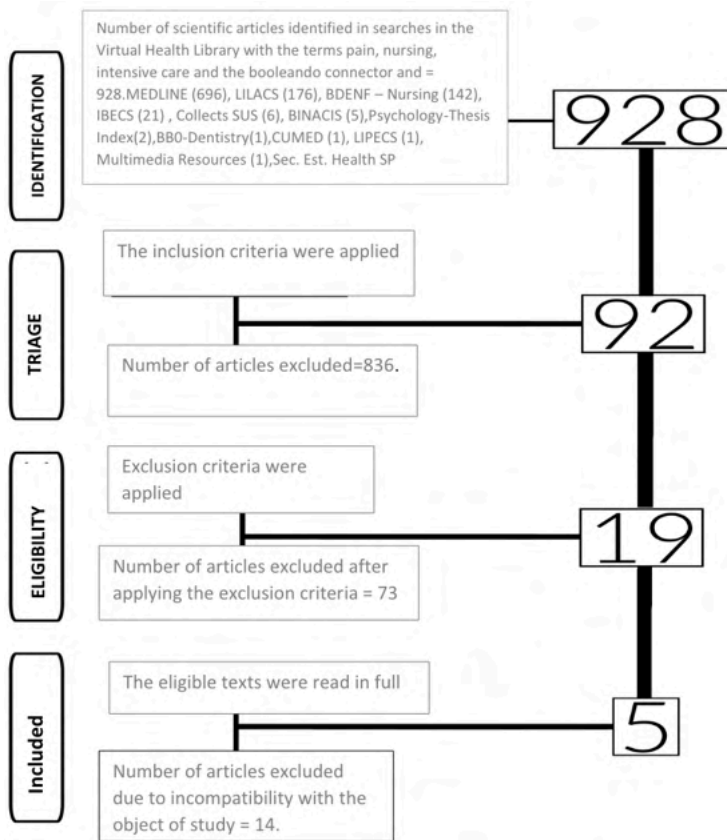Frame 1 presents the characterization of the sample based on the review carried out.

Figure 1 – authors' source.

| Title of article | name of the magazine | Publication year | Data base | Authors |
|---|---|---|---|---|
| Impact of acute pain and analgesic adequacy in hospitalized patients | Brazilian Journal of Pain | 2020 | LILACS | Salvetti, M. G. Garcia, P.C. Lima, M. A. M. Fernandes, C. G. Pimenta, C. A. M. |
| Palliative nursing care for the elderly in the ICU: an integrative review | Research Journal Care is Fundamental Online | 2018 | BDENF | Luiz, M. M. Netto, J. J. M. Vasconcelos, A. K. B. Brito, M. C. C. |
| Palliative care for the elderly in intensive care: the view of the nursing team | Text & Context - Nursing | 2018 | BDENF | Queiroz, T. A. Ribeiro, A. C. M. Guedes, M. V. C. Coutinho, D. T. R. Galiza, F. T. Freitas, M. C. |
| Conceptual and operational definitions of the components of the nursing diagnosis Acute Pain (00132) | Latin American Journal of Nursing | 2017 | LILACS | Correia, M. D. L. Duran, E. C. M. |
| Non-pharmacological interventions in the management of pain in adult patients in intensive care | Public Health | 2019 | MEDLINE | Silva, W. B. H. Côrtes, E. M. P. Silva, P. O. Ferreira, M. A. Machado, P. R. F. Silva, V. R. F. Marta, C. B. |

Frame 1 – Characterization of the study sample,

For the present study, considering the descriptors "pain", "nursing" and "intensive care", we found as a result the five articles exposed in table 1. All of them have an author body composed of nurses and nursing students and are randomly distributed over the time set for analysis. It can also be observed that there is no repetition of authors, which shows us that there is probably no research group formed by nurses that investigates, or publishes about, pain in patients with a lowered level of consciousness and/or neurological response.

Also, of the articles, two deal with the identification and management of pain from the perspective of palliative care for elderly patients, considering these actions as priorities in the process of palliating the difficult situation of the elderly in a terminal situation of life. Queiroz et al (2018), Luiz et al (2018)

Luiz et al (2018) mentions that some pains, such as the pain of the cancer patient, are total pain because they go beyond the physical, psychological and social dimension. Thus, assessing this pain, as well as monitoring and remedying it, require more than a scale or patient observation.

Salvetti et al (2020) identified the impact of acute pain on activities of daily living, resulting in changes in the ability to eat and sleep in patients with acute pain, and analyzed analgesic adequacy, noting that part of the prescriptions (68%) was inadequate for the pain intensity reported by patients.

Correia and Duran (2017), in their study on acute pain, aimed to build the conceptual and operational definitions of each defining characteristic and related factors presented by NANDA-I for the nursing diagnosis of Acute Pain, in order to help nurses in the practice in identifying the signs and symptoms presented by the patient with pain and its related factors, improving the care plan and its management.

Silva et al (2019) concluded that health professionals are still limited to using pharmacological means to bring pain relief to patients, they are also unaware of many techniques that can be used to bring comfort to the patient.

## DISCUSSION

From the meaning units present in the analyzed studies, three categories emerged: I- Acute pain in intensive care; II- Non-verbal pain assessment of adult ICU patients; III- Pain for patients in palliative care in intensive care. Such categories corroborate the understanding of the state of the art on pain in adult patients in intensive care, as they appeared in tautochrony in the sample studies.

### I – ACUTE PAIN IN INTENSIVE CARE

Pain is understood as a complex and individual experience, which is manifested by bodily and physiological signs. It is ranked fifth vital sign by the American Agency for Public Health Research and Quality and the American Pain Society. Therefore, pain assessment and management become part of proper care and must be treated with the same importance as controlling temperature, blood pressure, respiratory rate and heart rate (SOUSA, 2002; WALID, 2008).

It is estimated that 80% of patients do not receive adequate treatment for their pain in some hospital sectors. In addition, the cost of hospitalization becomes exorbitant when pain is not adequately treated (WALID, 2008; SALVETTI et al, 2021).

Among health professionals, the role of nurses in pain management is praised, emphasizing activities such as exploring and valuing pain complaints; collect data on aggravating factors, personal and family background; investigate the discomfort caused by pain; and using instruments that can help in its measurement and evaluation,

effectively intervening in the quality of analgesia (FRANCO et al, 2017; LUIZ et al, 2018; DA SILVA et al, 2019).

Acute pain during hospitalization may occur due to disease symptoms and/or therapeutic procedures. Most therapeutic approaches in ICU patients are invasive and, consequently, painful (GOSLING, CHAGAS & PÉRISSÉ, 2012; SALVETTI et al, 2021; CORREIA & DURAN, 2017; DA SILVA et al, 2019). Some factors such as venous access, tubes, mechanical ventilation, mobility restriction, among others, can produce painful sensation, making it necessary to investigate and discuss these factors that cause pain in this patient, in order to bring out strategies for the prevention or adequate treatment of this condition. pain (GÉLINAS et al, 2004; SALVETTI et al, 2021; DA SILVA et al, 2019).

As mentioned above, there is a challenge to measure pain during ICU stay, due to the decrease in the level of consciousness, disease severity, mechanical ventilation and the use of sedatives, especially considering the high doses that are administered. Thus, for better control of this frequent pain, it is essential that the nursing professional develops knowledge about pain, in order to achieve conditions to assess and measure its complexity (FREITAS & PEREIRA, 2013; LUIZ et al, 2018). Authors state that less than half of patients in intensive care have adequate pain management, which corroborates the findings of this study (BYRD, GONZALES & PARSONS, 2009; SALVETTI et al, 2021).

For the proper assessment of the pain of these patients, the professional nurse is required to understand the painful phenomenon, so that they can expand their possibilities by complementing them with the instruments already in place, in order to obtain a complete and effective assessment(WATERKEMPER, REIBNITZ & MONTICELLI, 2010; LUIZ et al, 2018).

Despite the negative impact of pain and its repercussions, care for patients with pain continues to be a major challenge for health professionals, so pain control and relief must be a priority in intensive care patient care (YENG & TEIXEIRA, 2008). A Brazilian study states that we must base ourselves on the communicating senses of bodies, understanding that the body is capable of manifesting the organic basis of emotions and materiality of ideas even if no words are said. For this, it is necessary to broaden the clinical view of the patient and include in the semiology of care the permanent surveillance of potentially pain-inducing factors, both in the objective and subjective dimensions. Thus, nursing interventions will become clinical interventions that will produce responses in the patient's body. (TAETS & FIGUEIREDO, 2016; QUEIROZ et al, 2018).

Identifying acute pain is the first step towards providing quality care because by focusing on the problem, we are able to characterize it and solve it more accurately. This becomes easier when this patient is able to communicate. However, in the intensive care setting, many of them are not able to communicate verbally, which leads us to the second identified category (CORREIA & DURAN, 2017).

## II- NON-VERBAL PAIN ASSESSMENT OF ADULT ICU PATIENTS

As we saw in the previous category, the diagnosis of pain by health professionals may not be as assertive as expected.

If, on the one hand, the gold standard for pain identification is the verbal report of patients(CORREIA & DURAN, 2017), on the other hand, we see the lack of knowledge of the scales used to assess pain in patients with no response, either by sedation or coma.

The identification of situations that can be stressful to the hospitalized patient, such

as punctures, probes, wounds, procedures, among others, is important because it must make the professional alert and vigilant for the possibility of pain, thus influencing the care provided by the team that accompanies (DA SILVA et al, 2019).

It is also essential for nurses to be aware of the signs and symptoms that often accompany pain, such as increased heart rate, blood pressure and respiratory rate, pupil dilation, pallor and sweating, in addition to nausea and vomiting. Also, the patient may moan, cry, scream, silence, grimace, shudder, immobility, rubbing, rocking and grabbing the nurse's arm (DA SILVA et al, 2019).

The scarcity of references and dissemination of non-verbal pain assessment scales also hinder its identification, as well as its early and effective management (CALIL & PIMENTA, 2005; CORREIA & DURAN, 2017; DA SILVA et al, 2019)

It is possible to use some non-verbal pain assessment scales in adult patients hospitalized in ICUs. Among them, we can mention the Behavior Pain Scale - used in sedated and intubated adults, the Pain Assessment in Advanced Dementia - used for adult patients with altered neurological function, cognitive deficit, comatose patients or patients under sedation, the Faces scales - use drawings animated or illustrated representations and the Abbey Pain Scale - acute and persistent pain in the elderly including 6 assessment items (BATALHA, 2016).

The clinical view seeks a new language for care practice, including the importance of knowing how to "read" non-verbal signs of pain in patients. For this, the clinical look requires the exercise of seeing the patient beyond technology (TAETS & FIGUEIREDO, 2014).

## III- PAIN FOR PALLIATIVE CARE PATIENTS IN INTENSIVE CARE

According to the *Worldwide Hospice Palliative Care Alliance* (WHPCA, 2022), in 2014 there were about 20 million people in need of palliative care worldwide. Of this total, about 18 million did not receive the necessary care, including pain management.

In 2002, the WHO updated the concept of Palliative Care from 1990: "Palliative Care consists of assistance provided by a multidisciplinary team, which aims to improve the quality of life of patients and their families, in the face of a life-threatening disease, due to through the prevention and relief of suffering, early identification, impeccable assessment and treatment of pain and other physical, social, psychological and spiritual symptoms" (WHO, 2002).

Palliative care is specialized care aimed at improving the quality of life of patients facing life-threatening illnesses. A care that involves the entire multidisciplinary team, patient, family and community (FERREIRA, 2013). This care is necessary for the prevention and relief of the suffering generated by problems of multiple natures. Palliative care provides the patient with relief from the symptoms of the disease that the patient is affected and pain relief, thus providing a dignified end of life. Palliative care along with other therapies are intended to alleviate suffering and minimize the stigma associated with death. (MENDONÇA, MOREIRA & CARVALHO, 2012; LUIZ et al, 2018; QUEIROZ et al, 2018).

The concept of total pain, proposed in 1967 by Cicely Saunders, defines that all aspects of the patient's life (physical, emotional, social and spiritual) contribute to the generation of pain and the manifestation of suffering (CASTRO et al, 2021, LUIZ et al, 2018).

Pain assessment goes beyond analgesics, it involves understanding the suffering of the other. Pain assessment of terminal patients

in palliative care is complex, involves the physical, psychological and social dimensions, requiring specific knowledge and skills from the professional (FREITAS & PEREIA, 2013; DA SILVA et al, 2019).

## CONCLUSION

This study made it possible to understand the state of the art on pain in adult patients in intensive care in nursing studies in Brazil. The analyzed categories - Acute pain in intensive care, non-verbal pain assessment in ICU patients and pain for patients in palliative care in intensive care - indicate that, although there are methods for assessing pain in intensive care patients, they still are not sufficient for adequate pain management. When relevant, the nursing professional's misinformation combined with the lack of adequate protocols for pain management contributes to the maintenance of the patient's pain condition.

It was also possible to understand the importance of legitimizing pain as the fifth vital sign and to demonstrate how the multidisciplinary team, especially the nursing team, needs their common purpose to be the proper management of pain in intensive care patients.

We suggest that new clinical studies on the subject be carried out to enable associations between verbal and non-verbal signs and signs of the body.

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