Analysis of the perception of nurses when assessing the pain of the newborn in the Neonatal Intensive Care Unit

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Abstract: The nursing team has great relevance in the process of pain perception and evaluation, since it acts directly in the care of these babies, being responsible for identifying signs and enabling intervention that can soften the painful sensation. This study aims to identify and analyze the perception of nurses about pain assessment in NBs hospitalized in neonatal ICU. This is a descriptive, cross-sectional study with a quantitative-qualitative approach. Twelve participants were sampled. The newborn has several peculiarities, emphasizing even more the importance of training professionals. Neglect of painful stimuli can result in long- and short-term harmful consequences. The results obtained were satisfactorily satisfactory. However, it is expected that this agenda that deals with pain in the neonatal sphere will continue to spread in the field of science, bringing more and more improvements in the options of treatments and care.

Keywords: Newborn. Neonatal ICU. Pain.

1. Introduction

Pain is elucidated by the International Association for the Study of Pain (IASP) as an unpleasant sensory and emotional experience that is usually related to actual or potential injuries, which should be interpreted intimately and multidimensionally. It is a frequent sensation felt by all human beings and demonstrated in a particular way (XAVIER, 2018).

For a long time, it was considered that newborns (Newborns) were not able to feel pain, since their nervous system was not yet fully formed. However, research has shown that the NB obtains all the physiological and neurochemical requirements that is necessary for the reception and transmission of painful stimulus (MARCONDES, 2017).

With regard to the newborn, pain in a characteristic way deserves special attention, because it is not able to express it verbally like the others. The nurse, who is responsible for establishing an intervention with measures that soften the painful sensation, has great relevance in the process of identifying pain, since they act in care directly performing care to the NCs. (COSTA, 2017).

There are two parameters for pain assessment: behavioral and physiological. Among the behavioral parameters are facial expressions, body movement and crying, while physiological, we have changes in heart and respiratory rhythm, blood pressure and oxygen saturation (QUEIROZ, 2020).

It is extremely necessary to improve and train the team of professionals so that they are able to verify, evaluate and treat the pain felt by the NB, minimizing the distance between knowledge about neonatal pain and clinical practice. In addition to contributing to an improvement in the quality of care provided (ANDREAZZA, 2017).

Several recommendations to relieve and relieve pain in NB have been combined into several care protocols, guidelines and consensuses to serve as a basis for applying methods that show good results. However, as much as there are scales and various means that guide pain assessment, the sub treatment still represents a problem of great relevance (CHRISTOFFEL, 2017).

It is estimated that a newborn hospitalized in the Neonatal Intensive Care Unit (NICU) receives from 50 to 150 procedures that cause pain and only in 3% of these situations measures is used to relieve it, which, it is observed that it is still scarce. Pain, which is considered the fifth vital sign, when treated or inadequately prevented represents a great risk, and may cause consequences, including, in the long term, in addition to a higher morbidity and neonatal mortality. Treatment and prevention must be beyond an obligation of the professional, because it is a right of the person who suffers from it. (ELIAS, 2016).

Considering nursing, the professional group that obtains responsibility for the act of caring in a daily and continuous way in the neonatal context, it is intensely relevant to carry out this study, in order to verify the training of newborn care, as well as to observe the means used for management. And in view of this, to expose the perception of nurses regarding pain analysis in NRs hospitalized in the Neonatal Intensive Care Unit?

For this reason, this study aims to identify and analyze how the nurse (a) present in the neonatal ICU obtains the perception of pain in newborns who are hospitalized, in the same way as what is done to evaluate it and the methods used to health it.

2. Methodology

This is a descriptive, cross-sectional study with a quantitative-qualitative approach. Held at The João Murilo de Oliveira Hospital, in the city of Vitória de Santo Antão, located in the interior of Pernambuco. The population corresponded to nurses working in the care of the Neonatal ICU and the sample was for convenience. Being the inclusion criteria: being a nurse working in the care of the NICU, having availability to participate in the study, allowing the dissemination of data in scientific environment, according to technical and legal aspects. And the exclusion criteria: being working less than six months in ICU and nurses who, for some reason, were not present on the day of data collection or who did not agree to participate in the research. A semi-structured individual interview was used to perform data collection. The results were presented through graphic representations, in which they obtained their discourse and analyzed content, besides having translated into percentage values the knowledge of nurses when evaluating pain in newborns in neonatal ICU. The study comparing the guidelines and criteria established in resolution 466/12 of the National Health Council (CNS), respecting the ethical and legal precepts established and ensuring the legitimacy of the information. It was evaluated by the Research Ethics Committee of the University Center of Vitória de Santo Antão (CEP-UNIVISA), being approved through the number of CAAE 48021721.4.0000.9227. All participants were aware that they could withdraw at any time and only participated by signing the Informed Consent.

3. Results and Discussion

The present study obtained twelve participants as a sample, after analyzing the inclusion and exclusion criteria.
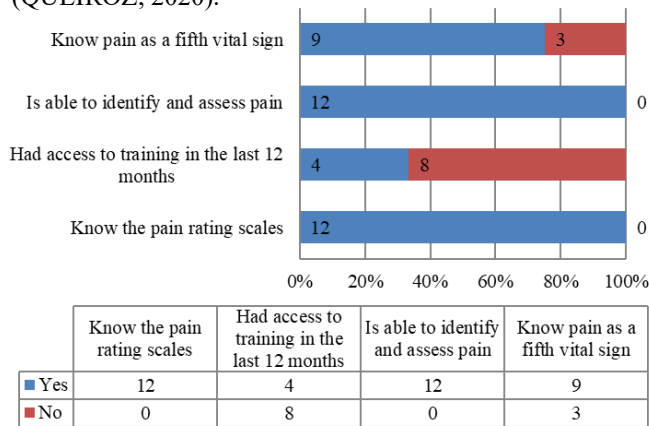
Table 1 - Sociodemographic identification of nurses working in a hospital in the interior of Pernambuco.

		N	%
Age group	30-35 years	04	33,3%
	36-40 years	03	25%
	41-45 years old	04	33,3%
	46-50 years	01	8,4 %
	Total	12	100%
Gender	Female	12	100%
	Male	00	0%
	Total	12	100%
Postgraduate in neonatology	Yes	11	91.6%
	No	01	8,4%
	Total	12	100%
Time of action in Neonatology	01-09 years old	03	25%
	10-19 years old	08	66,6%
	20-19 years old	01	8,4%
	Total	12	100%

Among the participants in the study, it was found that 33.3% (n=04) of the sample were between 30 and 35 years old and a portion equal to this was between 41 and 45 years old, with no one under 32 years of age. In the case of gender, the sample obtained 100% (n=12) of the female participants. Of these, 91.6% (n=11) had specialization in the neonatology area and 66.6% (n=08) already work in the area from 10 to 19 years.

The newborn has several peculiarities that are not general domain of health professionals, thus emphasizing the importance of training these professionals to deal with and understand these particularities. The specificities that this age group presents, demand a greater caution and a careful interpretation of the characteristics of the NB allowing a greater capacity for problem-solving and comfort to patients (QUEIROZ, 2020).

	Know the pain rating scales	Had access to training in the last 12 months	Is able to identify and assess pain	Know pain as a fifth vital sign
■ Yes	12	4	12	9
■ No	0	8	0	3

Figure 1 - Evaluation of the perception of nurses about pain in the Newborn. **Source**: Authors.

Regarding the analysis of nurses' knowledge related to pain, 100% (n=12) of the professionals know the evaluation scales. Meanwhile, 66.7% (n=08) had access to some training in the last 12 months and 100% (n=12) were able to identify and evaluate pain in nb. When asked about knowing pain as a vital 5th sign, 75% of the participants stated that they already knew this information.

The front of possibly painful situations is always necessary to have instruments that translate the language of these situations, thus evidencing the relevance in the use of pain assessment scales for an effective evaluation. It should also be emphasized the importance of humanization when assisting these NCs, as well as the ability to recognize behavioral and physiological changes, for a better treatment of pain (MARCONDES, 2017).

When evaluated in relation to the signs that allow identifying the presence of painful sensation, the answers were verified and analyzed and can classify them into two categories:

A) Global – frames the patient's superficial (physical) and physiological patterns. This category was mentioned in the answers by 66.7% (n=08) of the nurses interviewed.

"Enf1: ... tachycardia, painful face, crying."
"Enf2:" ... changes in vital signs, tremor in the chin..."

B) Superficial Signs – covers only physical signs related to pain. This sample corresponded to 33.3% (n=04) of the sample.

"Enf3 : Facial expression contracted."
"Enf5: ... facial expression, movement legs and arms."

Changes caused by pain in nb can be synthesized in physiological and behavioral changes. These alterations usually follow a painful phenomenon in newborns, thus enabling the identification of discomfort in the patient and enabling the use of instruments for the treatment of the same (ANDREAZZA, 2017).

When asked why the nurse has relevant emphasis in the identification, treatment and prevention of pain in the NB and after the analysis of the content of the acquired answers it was possible to divide the groups into two categories. They are:

A) Team Manager – In this category, the participants affirm that the role of relevance of the nurse is given by their role as manager before the team. This category was mentioned by 66.7% (n=08) of the interviewees.

"Enf2: Nurses are a fundamental agent in this process... By leading a team, he has an important role..."
"Nurse: Nurses are responsible for planning and implementing the care plan for newborns..."

B) Professional closer to the patient – In this category, the interviewees affirm that the nurse holds a prominent role because he/she is the professional responsible for the most direct contact with the patient. This category corresponded to 33.3% (n=04) of the sample.

"Enf9: ... it is possible to safely evaluate and prevent possible consequences by direct and frequent contact with the RN...

"Enf10: ... we spend most of our time with patients, we are the ones who do the greatest number of procedures..."

Nursing plays a fundamental role in the management and reduction of pain and suffering in newborns, mainly because they are professionals who remain with the patient during the hospitalization period, as well as for performing a large portion of the procedures. Prescribing non-pharmacological methods is a competence of nurses, as well as ensuring safety, comfort, management and effective treatment of pain in patients (MOURA, 2021).

Regarding the consequences that inadequate pain treatment can bring to the NB, after reading and interpreting the results were divided into 02 categories:

A) Global (physiological and behavioral consequences): this category corresponded to 8.4% (n=01) of the responses.

"Enf7: Pain has behavioral and physiological consequences in nb...".

B) Consequences for the development of newborns in the long term: corresponded to 66.6% (n=08) of the answers.

"Enf8: ... morbidity and mortality, developmental problems, and neurological sequelae."

"Enf9: ... increased morbidity and mortality and can have irreversible consequences for growth and development...".

C) Short-term physiological consequences: corresponded to 25% (n=3) of the responses.

"Enf1: ... neurological alteration, change in vital signs."

"Enf9:changes in temperature, glycemic changes, changes in blood pressure."

Repeated and untreated painful stimuli during the hospitalization period, especially in the case of such a premature stage of life, can result in damage to neurodevelopment and behavior, with long- and short-term harmful consequences in the neonate (MACIEL, 2019).

When asked about the method used to identify pain in NB, we were able to classify 03 categories by interpreting the answers:

A) Global (clinical parameters and pain assessment scales): in this category the participants used both clinical parameters and evaluation scales and corresponded to 33.3% (n=04) of the sample.

"Enf11 : I use the NIPS Scale. I evaluate facial expression, vital signs, crying...".

"Enf10: ... we can be aware of facial expressions, behavioral activities and use NIPS scale, for example."

B) Clinical parameters: this category composed 8.4% (n=01) of the sample.

"Enf9 : Evaluate facial expression, when possible, crying and irritability."

C) Pain assessment scales: this category corresponded to 58.3% (n=07) of the participants.

"Enf6: Through existing scales."

"Enf8: By the NIPS scale.".

4. Conclusions

In view of the above, it was evidenced in unanimity that there was theoretical knowledge on the theme of neonatal pain. Nevertheless, it is stated that pain assessment scales in newborns are indispensable to identify and try to solve the problem as far as possible. In addition to having professional security in the face of the proposed theme, the importance of performing adequate and humanized treatment in neonates was asked.

It is understood that nursing care is necessary to adopt pain assessment and treatment methods more efficiently and accurately. Progress in the forms and methods of care ensures a high percentage of comfort to premature infants who spend most of their time in incubators, with evaluation not only of nursing, but of a multidisciplinary team. The constant emphasis on only identifying and promoting existing therapeutic measures should not be a paralyzing reason for

nursing in the face of the discovery of new methods to contribute to the care of the newborn.

From this, it is of paramount importance that theoretical and practical knowledge in nursing can have contiguous synchronization. Avoiding in a way the distancing of both or the lack of management in the execution practices. Due to the vulnerability of neonates, professionals are required periodic training to update neonatal health, so that in the face of the adversities faced in the NICU, the care of them can be of the best possible quality, always aiming to reduce the pain found daily of clinical management, which should be carried out safely.

The results obtained were satisfactorily satisfactory. However, it is expected that this agenda that deals with pain in the neonatal sphere, is something subjective, individual, intense or not of each premature, continue to spread in the field of science, bringing more and more improvements in the options of treatments and care.

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