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BIOETHICAL REFLECTIONS ON THE TREATMENT OF NEONATAL PAIN IN AN INTENSIVE CARE UNIT

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Abstratc: Pain management in the neonatal intensive care unit (NICU) continues to be a major challenge for the care team. Despite all the advances in scientific knowledge, the treatment of pain in neonates is still neglected in many centers, with important biopsychosocial implications. Bioethical reflections on this subject are practically non-existent in the current literature and several studies have pointed out the importance of inclusion and active parental participation in pain management and decision-making for neonates hospitalized in the NICU. This article aims to stimulate bioethical reflections on health care by the nursing team for this vulnerable population, with regard to pain, with a view to improving care and humanizing hospital care.
Keywords: ethics, humanization, neonatal pain, care.

INTRODUCTION

Technological advances in recent years in the health sector have had a major impact on the care of newborn babies (NB), especially those admitted to the NICU, such as extreme premature infants, those with multiple malformations or those with severe neurological injuries. In addition to the technique itself, there are bioethical issues involved that need to be reflected on by the care team and the family.

New challenges arise every day and patients need increasingly specialized care to treat clinical situations and maintain life, with a substantial increase in the viability threshold of NBs. In this context, it is essential that care is thought out together, evaluating the best alternatives for care, with the aim not only being survival, but also actions to optimize neurological development, reduce long-term sequelae and promote quality of life after hospital discharge.

The team's great challenge is to combine technology and technical knowledge with humanized care, minimizing the damage caused by the treatment, and paying special attention to pain management.

METHODOLOGY

This is a narrative literature review study. The search was carried out on the Pubmed database between August and November 2023. The search used the descriptors neonatal pain, treatment and bioethics, with the Boolean operator "and". The filters used were: full text freely available, newborns under one month old, research on human beings and published in the last five years. A total of 74 articles were found, which were first selected by reading the titles. Next, the abstracts were read and then 13 articles were read in full. Duplicate texts were excluded, as were those on topics that did not fit the aim of this study.

NEONATAL PAIN

The neonatal period comprises the time from birth to 28 days of life and prematurity is considered when the baby is born before 37 weeks of gestational age.

In neonatology, pain was neglected for several decades, either because of the belief that babies don't feel pain or have no memory for painful experiences, or because of the limited knowledge of pharmacology at the time and the fear of medical complications due to the use of analgesics and anesthetics. Researchers suggest that pain in early childhood can have profound and long-lasting consequences and can amplify affective and behavioral responses during subsequent painful events.

The adverse impact of pain and stress on premature babies has been well documented, including neurobehavioral assessments and neuroimaging results. Each newborn admitted to a neonatal unit receives an average of 50 to 150 potentially painful procedures a day and

those weighing less than 1,000 g suffer around 500 or more painful interventions throughout their hospitalization (BRASIL, 2014).

The inability to communicate verbally does not exclude the possibility that the child is in pain and needs appropriate pain relief. Pain in the newborn can be identified through crying, facial expression, behavioral changes, changes in heart rate and respiratory rate. There are several scales for assessing pain in the neonatal period and the choice and familiarization of the team with the instrument is a crucial point for ensuring a standard of care among caregivers. The first step should be a careful pain assessment. After this stage, decisions are made that can include both non-pharmacological and pharmacological measures, or a combination of both modalities, to be employed in the patient's care (OSTROVSKY; BARRON, 2018).

The assessment of pain in newborns or other patients who are unable to express themselves is dependent on others for its recognition and subsequent therapeutic action. It is based on a limited repertoire of behavioural and physiological signs and often goes unrecognized, becoming a "silent suffering", especially in children with neurological problems (WILKINSON; ZAYEGH, 2020).

The volume and quality of publications show that scientific production on neonatal pain is in a constant process of revision. Even so, several national studies have shown that it is difficult for the team to systematically assess pain in these patients, with frequent reports of unfamiliarity with pain assessment scales and the lack of their application and that, in general, the use of available analgesic measures is inadequate and insufficient (MACIEL *et al.*, 2019; OLIVEIRA *et al.,* 2020).

Numerous authors have shown the need to invest in the training, education and sensitization of professionals in the control and treatment of pain, with a view to continuous improvement in neonatal intensive care units. This changes the action profile from passive to active in the daily routine, the goal of which is to humanize care for the neonate (MAIA; COUTINHO, 2023).

Some researchers suggest that non-pharmacological interventions should be used routinely before mild to moderately painful procedures. Non-pharmacological pain relief measures for newborns have proven efficacy, low cost and low risk for newborns. They should therefore be widely adopted by the nursing team in a systematic way. These authors discuss care practices from the point of view of the ethical principle of non-maleficence, taking into account the importance of continued training and awareness of the professionals involved (MCPHERSON et al., 2020).

Another study discusses the humanization of care and suggests individualizing treatment for each patient. In addition to attention to the organization of the environment (reducing noise, lighting and temperature), it proposes the use of music, touch, massage, the application of heat or cold to the site of pain, and oral sweetened solutions (GORDON, 2018).

Many authors have discussed the nursing professional's field of work in the NICU and concluded that clinical excellence is not just based on knowledge, technical quality and the use of resources. It must be humanistic, using soft technologies as working tools. Developing a good therapeutic relationship with ethics, empathy, balance and confidentiality, in order to achieve satisfaction and personal and collective fulfillment, (FLORES; RIVEROS; CAMPILLAY, 2021; FREITAS; LOURENÇO; CARVALHO, 2023; NASCIMENTO, 2021).

Researchers from the Federal University of Belém interviewed 20 NICU nurses about the humanization of care in neonatology. Considering the particularities of the NICU context, they pointed out that the act of humanizing must go beyond technique, apply skills and knowledge, be based on comprehensive care

and establish empathetic and individual relationships, corroborating what other authors have already pointed out. In this research, one of the examples pointed out was care in nursing procedures in order to promote comfort in painful situations (BARROS *et al*., 2023).

In view of the above, pain should be considered as one of the central aspects of comprehensive and humanized care for newborns and needs a differentiated look by the entire care team.

BIOETHICAL DILEMMAS IN THE NICU

Considering the medical particularities, some researchers have also discussed ethical issues such as: scientific misconduct, the use of placebo, beneficence, non-maleficence, comfort and end-of-life decisions, such as prolonging the dying process. These issues concern professional practice and the team must be prepared to make decisions on these potential dilemmas together with the parents/guardians, especially for those newborns at greatest risk: extreme prematurity and viability analysis; multiple congenital malformations and compatibility with life; severe chronic diseases with no therapeutic possibilities and palliative care, and ultimately the decision on whether or not to resuscitate.

In a 2020 article, the authors explored some bioethical issues to support the assessment of the value of life in infants with serious illnesses and life-limiting conditions. They reported the extreme difficulty in examining what would be in the best interests of a child in critical condition in the NICU. They reinforce the importance of ethical discussions by considering that, in some situations, life-prolonging therapy can be harmful to the patient (WILKINSON; ZAYEGH, 2020).

A group of researchers raised two major clinical and ethical dilemmas in NICUs in Belgium: whether or not to actively manage a baby born very prematurely, and whether or not to continue a curative treatment plan started at birth. The research results reflected the uncertainty inherent in complex ethical situations at this end of pediatric practice. They suggest intensifying qualitative research and debate in order to institute best practices for end-of-life care in neonatology with an emphasis on high-quality palliative care (AUJOULAT *et al.,* 2018).

In 2021, Greek researchers investigated among NICU healthcare professionals the acceptability, bioethical justification and determinants of intensive care for extremely premature or sick neonates. The results showed that the majority of professionals would initiate and continue intensive care. This work highlights the way health professionals manage bioethical dilemmas and decision-making, helps to identify the factors that influence them, promotes knowledge of the existence of bioethical dilemmas and better cooperation between the team, avoiding moral distress and consequently improving the quality of care (DAGLA, 2021).

PARENTAL CARE

The active involvement of parents during painful procedures is considered the first step towards improving pain management practices in neonates. Among the non-pharmacological approaches in use, interventions carried out by parents should be encouraged, so that parents themselves mediate pain relief for their children, consistent with the humanized and family-integrated care currently advocated.

A study carried out in Kenya explored mothers' views on pain and pain management practices in newborn babies hospitalized in the NICU. They wanted to be involved in their babies' comfort during clinical procedures, which did not happen routinely in the hospital where the study was conducted. The authors concluded that parental participation could

minimize the burden of pain, reduce stress and optimize the exercise of the parental role after hospitalization (KYOLOLO; STEVENS; SONGOK, 2019).

A meta-synthesis of qualitative studies on the factors affecting parents' participation in their babies' pain management during NICU procedures was recently published. The authors classified the papers into four analytical themes: learning to be parents of a hospitalized baby, stress and anxiety, healthcare providers as guardians and the NICU environment. They concluded that they all represented factors that affect parents' ability to participate in their babies' pain management. They recommended research to develop interventions to address these factors in order to optimize parents' participation in their babies' pain management during NICU procedures (MCNAIR et al., 2020).

NURSING CARE

The practice of nursing is closely related to "care" and dates back to the dawn of humanity. It is considered to be the profession that manages and provides care to patients, alone or in conjunction with other health professionals (SIEWERT *et al.*, 2017).

Quality of care is linked to good care practices, linked to patient safety, reducing harm and risks to ensure excellence, based on the professional-patient relationship. In addition to technique and monitoring, other demands must be considered in this process, such as listening skills, practical help and emotional support (DUARTE *et al.*, 2020; JESUS *et al.*, 2021).

Following these premises, an individualized care plan should be drawn up for each patient, together with the family, which is encouraged to participate actively throughout the process, in order to integrate therapeutic care (PERES; PAIM; BRANDÃO, 2020).

A Canadian study evaluated aspects related to continuing education for the treatment of pain in a children's hospital from the perspective of health professionals. They concluded that there is a positive impact if there is a specialized team that encourages training and implementation of evidence-based actions using resources appropriately for patients and families (KAMMERER; LINKIEWICH; ALI, 2023).

CONCLUSION

The care team in neonatal intensive care units faces enormous ethical challenges and moral dilemmas on a daily basis. Their work is closely linked to life and all the implications resulting from the health-disease process, considering the vulnerability of the neonatal period. This requires technical competence, continuous improvement, use of the scientific-technological apparatus, exercising a care plan - in its broadest expression - with decisions based on ethical reflections together with the family. The organizational structure of NICUs should allow for the recognition of ethical problems and encourage multidisciplinary discussions among health professionals so that they are aware of the values, beliefs and practices relating to ethical decision-making. More research on health professionals' behaviors and attitudes towards pain management in newborns is needed.

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