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ORIGINAL ARTICLE

KNOWLEDGE OF THE NURSING TEAM ON PREMATURE NEWBORN PAIN
CONHECIMENTO DA EQUIPE DE ENFERMAGEM SOBRE A DOR NO RECÉM-NASCIDO PREMATURO
CONOCIMIENTO DEL EQUIPO DE ENFERMERÍA SOBRE EL DOLOR EN EL RECIÉN NACIDO PREMATURO

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ABSTRACT
Objective: to identify Nursing team knowledge about pain in premature newborns. *Method:* a descriptive, exploratory, qualitative approach, with seven professionals who answered a semistructured interview form. The interviews were transcribed and, later, the ideas were grouped by similarity, discussed and analyzed in detail, according to analytical categories. *Results:* would show that 100% of the interviewees identify the pain empirically, showing the need for the use and implementation of SAE by the teams. *Conclusion:* it is necessary to train the multidisciplinary team to identify pain in the neonate and systematize Nursing care to provide effective interventions for pain. *Descriptors*: Pean; Newborn; Nursing.

RESUMO
Objetivo: identificar o conhecimento da equipe de Enfermagem sobre a dor no recém-nascido prematuro. *Método*: estudo descritivo, exploratório, de abordagem qualitativa, com sete profissionais que responderam a um formulário de entrevista semiestruturado. As entrevistas foram transcritas e, posteriormente, as ideias foram agrupadas por similaridade, discutidas e analisadas minuciosamente, conforme categorias analíticas. *Resultados*: evidenciariam que 100% dos entrevistados identificam a dor de forma empírica, demonstrando a necessidade do uso e implementação da SAE pelas equipes. *Conclusão*: é necessária a capacitação da equipe multidisciplinar para a identificação da dor no neonato e sistematização da assistência da Enfermagem para propiciar intervenções efetivas para a dor. *Descritores*: Dor; Recém-Nascido; Enfermagem.

RESUMEN
Objetivo: identificar el conocimiento del equipo de Enfermería sobre el dolor en el recién nacido prematuro. *Método:* estudio descriptivo, exploratorio, de abordaje cualitativo, con siete profesionales que respondieron a un formulario de entrevista semiestructurado. Las entrevistas fueron transcritas y, posteriormente, las ideas fueron agrupadas por similitud, discutidas y analizadas minuciosamente, según categorías analíticas. *Resultados:* evidenciaron que 100% de los entrevistados identifican el dolor de forma empírica, evidenciando la necesidad del uso e implementación de la SAE por los equipos. *Conclusión:* es necesaria la capacitación del equipo multidisciplinario para identificar el dolor en el neonato y sistematización de la asistencia de la enfermería para identificación del dolor en el neonato y sistematización de la asistencia de Enfermería para propiciar intervenciones efectivas para el dolor. *Descriptores*: Dolor; Recién Nacido; Enfermería.

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INTRODUCTION

Pain was conceptualized, in 1979, by the International Association for the Study of Pain (IASP) as an unpleasant sensory and emotional experience that is associated with a real, potential or discreet tissue injury. The pain is subjective, depends on how each individual, from the beginning of life, learns the application of the word pain, through the experiences of painful experiences.[1]

With regard to the newborn (NB), pain has not been a concern of clinicians and researchers for a long time, since there was a belief that the newborn was unable to feel pain. However, research has documented that the neonate has all the functional and neurochemical components necessary for the reception and transmission of the painful stimulus.[2] These researches have raised questions about the pain caused to infants requiring intensive care. With the advancement of knowledge and technological development, we are increasingly seeing the use of invasive treatments and intensive medical and Nursing care to keep the life of NB severely ill. If, on the one hand, such treatments keep babies alive, on the other hand they often cause pain and suffering.[3]

A preterm newborn (PTNB) in the Neonatal Intensive Care Unit (NICU) receives about 130 to 234 manipulations in the 24 hours, and many of these manipulations are painful. In addition, when hospitalized in an NICU, the newborn is entering a totally different environment from the mother's womb. The loud noises are loud and the lights strong and continuous; the action of gravity impedes its movements and becomes excessive, in addition to being unpredictably handled, often without proper care to reduce stress and pain.[4]

In this perspective, it is necessary to know the non-verbal responses of the PTNB in relation to pain, usually it includes behavioral and autonomic reactions. Although a plethora of pain assessment measures have been developed, they are still poorly used in clinical practice. In the context of the evaluation of pain in the NBs, the main parameters used are behavioral and physiological.[5]

For the physiological parameters, there are: change in heart rate, respiratory rate, blood pressure and oxygen saturation, while for behavioral ones there are facial expressions, body movements and crying.[4]

In view of these signs and symptoms a systematized evaluation is of paramount importance. For the health professionals of neonatology to be able to act therapeutically in the face of possibly painful situations it is necessary to have instruments that decode the language of pain.[6]

Thus, it is a consensus that the objective evaluation of pain in the newborn should be done through scales that encompass several parameters and seek to standardize the criteria for measuring the variables. Among the numerous NB pain assessment scales described in the literature, several can be applied in clinical practice. Suggested scales for pain assessment in NB: NB and Infant Pain Rating Scale (NIPS); NB Pain and Discomfort Scale (EDIN); Behavioral Indicators of Pain in the Infant (BIIP) and COMFORT.[3]

It is believed to be of the utmost importance that the Nursing team, that cares for the infants in the neonatal ICU, seek measures that reduce the suffering and pain of the PTNB. Therefore, it should emphasize humanization by assisting these patients, being able to recognize the behavioral and physiological changes to administer the appropriate treatment of pain.[1] In this sense the interest for the theme arose from the need to emphasize how important is the assistance based on the minimization of pain In the NB. Be it developed not only with empirical care, but, with a technical-scientific basis by the Nursing team.

OBJECTIVES

● To identify the knowledge of the Nursing team, in the Intensive Care Unit about pain in the preterm newborn.

● To know the actions of the Nursing team regarding the evaluation and management of pain in neonates, during the hospitalization process in an Intensive Care Unit.

METHOD

A descriptive, exploratory study of a qualitative approach that seeks to focus mainly on the social as a world of researchable meanings and on common language or speech as the raw material of this approach, to be contrasted with the practice of social subjects.[7]

The study area consisted of two institutes of the municipality of Pato Branco - PR that provide service to the Unified Health System (UHS) and private network, with ten beds per institution. The participants of the research were Nursing professionals who work in the neonatal ICU during the day and evening periods and accepted to participate in the research and will be identified by T for technician and N for nurse. The data

collection period was in May 2016 through semi-structured interviews.

The data collection was done after the authorization of the ethics committees of the Institutions that were studied and the favorable opinion of the Committee of Ethics in Research with human beings, respecting the resolution 466/12, of December of 2012. It was explained, to the researched the objective of the study emphasizing the non-mandatory nature of the research, a Free and Informed Consent Form was signed in two ways so that a copy of this term remained with the researcher and the other with the researcher, thereby legitimizing the voluntary participation of the respondents.

The interviews were transcribed and later, the ideas were grouped by similarity, discussed and analyzed in detail by the researchers, according to conceptual categories. Based on the importance of the contextualisation and the environment where the data were produced, increasing the range of information and providing inferential analysis of results, in their production context.[8]

The final version of the study is available with the participating institutions in order to encourage discussions between institutions and their respective teams on improvements in pain management in premature newborns.

RESULTS AND DISCUSSION

Seven professionals, members of the neonatal ICU of the Institutes surveyed, contributed to the study. Understanding the sample: two nurses and five Nursing technicians. Among them only one male professional. Regarding the age group, we found that the age ranged from 20 to 30 years, with the age group between 25 and 29 years old being predominant, while the age group from 20 to 24 years represented the category with the lowest incidence. Regarding the time of professional experience in neonatology, there was variation between one year and eight years. It was noticed however that the interviewees who have more than three years of experience predominate, totaling four professionals. Of this total, we observed that 40% of professionals have more than five years of experience.

For the exploration of the material, the statements were grouped and divided into four categories, so-called: Identifying pain in the premature newborn; Nursing interventions; Acting of the multiprofessional team for the relief of pain and Improving knowledge regarding pain.

♦ **Identifying Pain in Premature Newborns**

When asked how they identify that PTNB is in pain, there was unanimity in perception through crying. Regarding the identification by the facial expression, five of the professionals noticed that there is alteration, but they did not associate to any inclusion criteria, or even of measurement:

> *Through the tears and his face as he cries.* (T1)
>
> *Through the cry, you are with the baby and he is crying a lot, gives the milk, gives birth, does massage and he continues crying, you already imagine that it can be something.* (T3)
>
> *[...] another thing is frowning, the crying itself, by the handling, and by the facet right, facet of pain itself.* (T4)
>
> *I identify because he is agitated, tearful, frowns [...].* (T5)

It is evidenced the importance of crying in the identification of pain, the expression of pain in the newborn, after a painful stimulus, is characterized by the emission of crying along with facial and body modifications, as well as physiological reactions of intensity and variable characteristics. [9]

Physiological changes were cited by two participants, such as change in heart rate and change in respiratory rate, but the lack of a better definition of the subject was noted:

> *[...] tachycardia, if you had how to take hormonal, shaking, if you are uncomfortable the bed, the position in the bed, the question of putting the cushion to leave it more secure.* (N1)
>
> *[...] you have increased heart rate, respiratory rate, I think that would be it.* (N2)

Pain as a subjective signal, plus the impossibility of NB verbalizing it, conditions the health professional in the Neonatal Intensive Care Unit to be attentive to the behavioral and physiological changes that accompany the painful episode, besides pointing to the necessity of the use of Instruments for measuring pain in this age group.[2]

♦ **Nursing Interventions**

In the field of pain knowledge, one of the most important issues concerns the difficulty of assessing and measuring pain in the neonate, constituting one of the major obstacles to the adequate treatment in the Neonatal Intensive Care Unit.[10]

Regarding the treatment or intervention of Nursing for pain relief, it was evidenced that the professionals use the massage in the relief

of pain and provide comfortable bed, as we can verify in the following reports:

> After we identify that the newborn is in pain we have some measures of comfort to relieve this pain, there are massages like the shantala [..]. (T4)
>
> If it is colic before leaving for medication we do massage, change the positioning, improve his comfort [...]. (T1)
>
> We change the bedding, leaving it as comfortable as possible, there are days when it does not work, but we always try to change our position [...]. (N1)

In this context, the Nursing Care Systematization is extremely important, since it directs interventions according to the needs of the patient, besides facilitating the evaluation of Nursing care. The use of Systematization in care for the newborn ensures the quality and organization of the care, which promotes greater survival and shorter length of stay of the child in the NICU.[11]

Noting the importance of a systematic assistance, it was noticed that none of the interviewees mentioned the use of the NCS, being exposed a difficulty of planning in the following statements:

> [..] So we end up having a restraint of care, which would be ideal to make everyone together, to handle less, would be good for them, but we have difficulty doing by the flow of the morning shift. (N1)
>
> Also among the interventions, non-nutritive sucking and glucose use was mentioned by one of the interviewees:
>
> [...] if we are crying a lot we make pacifiers use glucose [...]. (N2)

It is known that sweetened solutions cause release of endogenous opioids, which have intrinsic analgesic properties, being effective the use during painful procedures, attenuating the time of crying, facial mimic of pain and reducing the physiological response to pain, compared to other solutions.[3]

In addition, non-nutritive sucking, is recommended because it inhibits hyperactivity by reducing the pain of PTNB undergoing algic procedures. When it is rhythmic, it releases serotonin into the central nervous system as a therapeutic resource,[3] however, studies on the use of the substance in repeated doses are still inconclusive and deserve further investigation.[4] In view of this, care in an unsystematic way should be reviewed , so that the action of the Nursing professional is made based on safe behaviors and attitudes that support the decision-making related to the client. Knowledge is one of the values of great importance for the nurse to be sure to be acting correctly and adequately.[11] Therefore, caring for the NB admitted to the NICU requires the nurse's experience of assistance, technical-scientific knowledge and practical skills pertinent to the profession, in addition to the sensitization of a human care, which aims to promote the relief of discomfort and related pain to the therapeutic process, as a way of minimizing the stress experienced by the newborn during the period of hospitalization.[5]

♦ **Performance of the multiprofessional team in pain relief**

The performance of the multiprofessional team was considered important by the interviewees. However, the need arose to group care for lesser customer manipulation.

> [...] I think a lot of people touching them is a problem [...]. (T5)
>
> I think it is very important, but here is a very difficult thing, for the matter of manipulation. We try to adapt the patient in the best way possible, we pass bed by bed to leave everything more appropriate, from there arrives the doctor manipulates, the physiotherapy manipulates [...]. (N1)

Regardless of the method of pain relief used by the multiprofessional team, the humanization of care should be the main focus of care activities, seeking to minimize the trauma caused by the hospitalization process.[12]

It was also evidenced the relationship between medical and Nursing staff for pharmacological intervention in pain relief:

> [...] We check on the prescription if you have something for pain, or call the doctor. (T3)

Data indicate that only 3% of the cases of painful procedures in PTNB, are used, some analgesia or anesthetics are used and only 30% of the cases are performed some type of technique for the relief of pain.[3]

Medical professionals also show little knowledge about the evaluation and treatment of pain in the neonatal period, and there is a need for continuous training for health professionals who work with this population.[10]

Evaluating the information obtained, it is noticed that the professionals consider the important multiprofessional care, but, evidence that in practice it is still deficient the application with adequate theoretical foundation that favors the care.

♦ **Improving knowledge regarding pain assessment**

When reporting what is necessary for the improvement of knowledge itself, there was unanimity among the interviewees. Everyone

recognizes that they need greater knowledge to provide adequate care, and, they also emphasize the need for continuing education consisting of training:

> I believe that with more training, so that we can recognize when he is in pain. (T3)

> So I think first is having a conversation with the staff, paying more attention to the baby she is taking care of and also carrying out ongoing education with the staff. (N2)

> Training for us to meet, the nurse gives some things to us. (T1)

The proper assessment of pain is paramount, since it depends on proper management. Measurement requires the use of quantitative and validated methods, using instruments or indicators that take into account behavioral changes and physiological changes.[13]

It was also expressed the difficulty in applying training in the NICU, in a multidisciplinary perspective and by the routine of the sector:

> I did a training with them, but until today we could not finish the rush. For them to be able to identify the pain. The training not only for Nursing staff, but not adhere for lack of knowledge. (N1)

> [...] the medical part, that most leaves them untidy that the majority comes there and leaves them as they want [...]. (T5)

The physicians did not incorporate, in their clinical practice, the methods of evaluation of pain, for this age group, nor the most effective therapeutic alternatives for the relief of this pain. To fill this gap, it is important to provide formal training for health professionals at all levels of training and to adopt routines written in the neonatal care unit for pain assessment and analgesia in the neonatal period.[14]

In the context of pain measurement, both institutions surveyed use some kind of scale, but, in an unsystematic way, as reported in the following speech:

> We have scales, but we do not use them as it is to put them on the face of the baby, for example, but we do not know if it's right or not, because we do not have a training. (T2)

There is, therefore, a need for professionals to be adequately trained in the evaluation and management of pain, becoming multipliers of knowledge in order to be able to develop comprehensive, quality care and to reinforce the intention to promote developmental care To the newborn in the Neonatal Intensive Care Unit.[10]

CONCLUSION

In the research with the professionals working in the neonatal ICU, who exercise intensive care to the premature newborn, it was evidenced difficulty in identifying the pain. It is known that the PTNB has all the physiological components for the perception of pain, but, unable to report it verbally, because it is something subjective, individual and difficult to interpret, the obstacle becomes greater in intensive treatment.

The interviewed professionals recognize the daily exposure to the painful procedures, they report empirically to identify the pain, mainly by crying. Note the use of non-systematic measures to reduce this stimulus, evidencing the need for the use and implementation of NCS by the teams.

There is difficulty in these sectors to perform training of professionals due to the intense flow and routines of the sector, which generates difficulty in the interpretation and measurement of pain signals. Since Nursing is a science, these professionals need a theoretical basis to carry it out, and to act holistically.

In terms of multidisciplinary work, there is still difficulty in interaction between teams. This fact may be worked out by the implementation of protocols and the systematization of the assistance that will allow harmonization of the team, providing a higher quality care.

It is suggested that this study can collaborate in the nurses' reflection regarding their autonomy as a professional, specific to the professionals of the researched institutions, who will be in possession of the final version of this research, based on the NCS performance in an efficient and complete way, order to provide humanized, quality and theoretically based assistance. Bearing in mind that through NCS, non-pharmacological measures for pain relief and control can be prescribed in an appropriate and professional manner.

REFERENCES

1. Reis DAM, Rodrigues LMP. A dor no recém-nascido pré-termo na Unidade de Terapia Intensiva Neonatal [monografia] [Internet]. Batatais: Centro Universitário Claretiano de Batatais; 2009 [cited 2016 Jan 15]. Available from: http://www.paulomargotto.com.br/documentos/Monografia_Dor-RN%20pre-termo.pdf

2. Sousa BBB, Santos MH, Souza FGM, Gonçalves APF, Paiva SS. Avaliação da dor

como instrumento para o cuidar de recém-nascidos pré-termo. Texto contexto-enferm. 2006; 15(spe): 88-96. Doi: 10.1590/S0104-07072006000500010

3. Ministério da Saúde (BR), Secretaria de Atenção à Saúde, Departamento de Ações Programáticas Estratégicas. Atenção à saúde do recém-nascido: guia para os profissionais de saúde. 2nd. ed. [Internet]. Brasília: Ministério da Saúde, 2013 [cited 2016 Jan 20]. Available from: http://bvsms.saude.gov.br/bvs/publicacoes/atencao_saude_recem_nascido_v1.pdf

4. Santos LM, Ribeiro IS, Santana RCB. Identificação e tratamento da dor no recém-nascido prematuro na Unidade de Terapia Intensiva. Rev Bras Enferm. 2012 Apr; 65(2):269-75. Doi: 10.1590/S0034-71672012000200011

5. Lelis ALP, Farias LM, Cipriano MAB, Cardoso MVLML, Galvão MTG, Caetano JA. Cuidado humanístico e percepções de enfermagem diante da dor do recém-nascido. Esc Anna Nery Enferm. 2011 Oct/Dec;15(4):694-700. Doi: 10.1590/S1414-81452011000400006

6. Crescencio EP, Zanelato S, Leventhal LC. Avaliação e alívio da dor no recém-nascido. Rev Bras Enferm [Internet]. 2009 [cited 2016 Jan 15];11(1):64-9. Available from: https://www.fen.ufg.br/revista/v11/n1/v11n1a08.htm

7. Minayo MCS. O desafio do conhecimento. São Paulo: Hucitec; 2015.

8. Campos CJG, Turato ER. Análise de conteúdo em pesquisas que utilizam metodologia clínico qualitativa: aplicação e perspectivas. Rev Latino-Am Enfermagem. 2009 Mar/Apr;17(2). Doi: 10.1590/S0104-11692009000200019

9. Branco A, Fekete SMW, Rugolo LMSS, Rehder MI. Valor e variações da freqüência fundamental no choro de dor de recém-nascidos. Rev CEFAC. [Internet]. 2006 Oct/Dec; 8(4):529-35. Doi: 10.1590/S1516-18462006000400014

10. Scochi CGS, Carletti M, Nunes R, Furtado MCC, Leite AM. A dor na Unidade Neonatal sob a perspectiva dos profissionais de enfermagem de um hospital de Ribeirão Preto-SP. Rev Bras Enferm. 2006 Mar/Apr;59(2):188-94. Doi: 10.1590/S0034-71672006000200013

11. Moreira RAN, Pereira LDB, Siqueira AEOB, Barros LM, Frota NM, Luna IT. Sistematização da assistência de enfermagem em unidade neonatal. Cogitare Enferm [Internet]. 2012 Oct/Dec [cited 2016 Jan 15];17(4):710-6. Available from: revistas.ufpr.br/cogitare/article/download/30379/19655

12. Caetano EA, Lemos NRF, Cordeiro SM, Pereira FMV, Moreira DS, Buchhorn SMM. O recem-nascido com dor: atuacao da equipe de enfermagem. Esc Anna Nery Rev Enferm. 2013 July/Aug;17(3):439-45. Doi: 10.1590/S1414-81452013000300006

13. Amaral JB, Resende TA, Contim D, Barichello E. Equipe de enfermagem diante da dor do recém-nascido pré-termo. Esc Anna Nery Rev Enferm. 2014;18(2):241-6. Doi: 10.5935/1414-8145.20140035.

14. Chermont AG, Guinsburg R, Balda RCX, Kopelman BI. O que os pediatras conhecem sobre avaliação e tratamento da dor no recém-nascido? J Pediatr. 2003 May/June;79(3):295-72. Doi: 10.1590/S0021-75572003000300014

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