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Pain assessment practices in a neonatal intensive care unit: a cross-sectional study

Prática de avaliação da dor na unidade de terapia intensiva neonatal: estudo transversal

Práctica de evaluación del dolor en las unidades de cuidados intensivos neonatales: un estudio transversal

Abstract

Objective: To analyze the practice of nursing professionals regarding pain assessment in newborns hospitalized in a neonatal care unit. **Method**: This cross-sectional, analytical study was conducted with nursing professionals from March to May 2018. A self-administered questionnaire was applied. The association of categorical variables with professional practice was analyzed considering both the chi-squared and Fisher's exact tests, at a 0.05 significance level. **Results**: In total, 35 nursing professionals participated in the study. Factors such as time working in the unit, length of professional experience and satisfaction with working conditions statistically showed influence on appropriate practice. We found that 17,1% of professionals reported using scales to assess pain in newborns. **Conclusion**: Professional nursing practices still lack the required assessment of neonatal pain. This study recommends interventions in work practice in accordance with institutional guidelines and managers, as well as continuous evaluation of its results.
Descriptors: Nursing, Team; Pain; Pain measurement; Infant, newborn; Intensive Care Units, Neonatal.

Resumo

Objetivo: Analisar a prática dos profissionais de enfermagem quanto à avaliação da dor do recém-nascido internado na unidade neonatal. **Métodos**: Estudo transversal, analítico, realizado com profissionais de enfermagem no período de março a maio de 2018. Utilizou-se questionário autoaplicável. Fez-se análise da associação de variáveis categóricas com a prática profissional utilizando-se os testes Qui-quadrado e Exato de Fisher, com adoção do nível de significância de 5%. **Resultados**: Participaram do estudo 35 profissionais de enfermagem. O tempo de trabalho na unidade, a experiência profissional e a satisfação com as condições de trabalho influenciaram estatisticamente a prática adequada. O uso de escalas para avaliar a dor em recém-nascidos foi informado por 17,1% dos profissionais. **Conclusão**: A avaliação da dor neonatal ainda não está sedimentada na prática profissional de enfermagem. Recomendam-se ações de intervenção na prática, com avaliação de resultados de forma contínua, alinhados com os gestores e as diretrizes institucionais.
Descritores: Equipe de enfermagem; Dor; Medição da dor; Recém-nascido; Unidades de Terapia Intensiva Neonatal.

Resumen

Objetivo: analizar la práctica de los profesionales de enfermería con relación a la evaluación del dolor del recién nacido internado en unidad neonatal. **Método**: estudio transversal, analítico, realizado con profesionales de enfermería en el periodo de marzo a mayo de 2018. Se utilizó un cuestionario autoaplicado. La asociación de variables categóricas con la práctica profesional se analizó mediante las pruebas de chi cuadrado y exacta de Fisher, con adopción del nivel de significancia del 5%. **Resultados**: en el estudio participaron 35 profesionales de enfermería. El tiempo de trabajo en la unidad, el tiempo de experiencia profesional y la satisfacción con las condiciones de trabajo influenciaron estadísticamente en una práctica adecuada. El uso de escalas para evaluar el dolor en recién nacidos fue relatado por el 17,1% de los profesionales. **Conclusión**: La evaluación del dolor neonatal aún no está establecida em la práctica profesional de enfermería. Se recomiendan acciones de intervención en la práctica, con evaluación continua de resultados, alineadas con los gestores y directrices institucionales.
Descriptores: Grupo de Enfermería; Dolor; Dimensión del Dolor; Recién Nacido; Unidades de Cuidado Intensivo Neonatal.

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INTRODUCTION

In neonatal units, newborns are exposed to multiple harmful stimuli that cause pain and stress, an average of 12 painful procedures daily[1]. The response to these stimuli results in negative and potential short- and long-term effects, such as physiological instability or changes in brain development and neurodevelopment, which may persist in childhood[1]. Thus, assessing and treating neonatal pain is an ethical responsibility [2] of health professionals and is part of qualified care for newborns at risk.

It should be noted that assessing neonatal pain is the first stage for proper management, since it is from its identification that interventions can be used to minimize it, such as the use of opioid and non-opioid analgesics, sweetened solutions, non-nutritive sucking, positioning, among others[1]. This responsibility falls on the multiprofessional team, especially the nursing team, which provides daily and continuous care to the newborn in the neonatal units[3,1].

In order to ensure the identification of pain, scales were created to assess and measure neonatal pain. Although there is no gold standard, these scales have adequate psychometric properties and are recommended by consensus and guidelines[4]. However, in clinical practice, it is observed that the use of scales to assess neonatal pain is still carried out in a punctual, fragmented and non-systematized manner[5-7].

The assessment of pain through scales is not yet a full reality, since there are intensive care units in which professionals do not use them; yet, somehow they identify pain, either by physiological or behavioral changes[1,7-8]. Studies show that health professionals, most of them nursing professionals, identify newborn pain mainly by behavioral aspects, usually by the presence or absence of crying[4]. This parameter, however, is insufficient for an adequate pain assessment, and it is essential to use validated multidimensional scales, covering behavioral and physiological parameters[1]. Assessing neonatal pain is indispensable for the adoption of measures that avoid, reduce or control it. This requires, among other aspects, skill, professional experience and institutional guidelines.

Given the importance of adequate pain management to prevent or minimize deleterious effects on the neurodevelopment of risk newborns, it is essential to identify how pain assessment is performed in the daily routine of neonatal practice. It is from the diagnosis of practice that interventions can be implemented with a view to professional qualification, with the identification of the problem being one of the first stages[9].

Considering the continuous care that the nursing team provides to newborns at risk in neonatal units and the challenges involved in pain assessment, this study had the following guiding question: "How does the practice of neonatal pain assessment by nursing professionals in the neonatal unit happen?" The objective was to analyze the practice of nursing professionals regarding pain assessment of newborns admitted to the neonatal unit.

METHODS

This is a cross-sectional, analytical study with a quantitative approach. Data collection took place from March to May 2018 in a neonatal intensive care unit (NICU) of a university hospital in Rio de Janeiro. The neonatal unit has a 100% occupancy rate and availability of 20 beds, 10 for the intensive care unit, 8 for the conventional intermediate care unit and 2 for the kangaroo intermediate care unit. The ratio of nursing professionals per patient is one nurse for six newborns and one nurse technician/assistant for two newborns.

The study population consisted of 41 nursing professionals from the researched unit, 13 nurses, 17 nursing technicians and 11 nursing assistants. It was considered inclusion criteria to work during the day or night and exclusion the absence of the professional due to vacation or leave in the period of data collection. The sample was determined by convenience.

Data collection was initiated only after the participants signed the informed consent form. The self-administered questionnaire was answered in a private room outside the unit and according to the availability of the professional (before or after the work period). The average filling time was 15 minutes, and, after its completion, the research assistant coded the instrument to ensure anonymity.

The questionnaire used was adapted from the original instrument and its use was duly authorized by the author[10]. The instrument is divided into two parts: the first, referring to sociodemographic variables, covers the category of performance of the nursing professional in the NICU, gender, age, professional training, time of training, time of professional experience, time of experience in the neonatal area, time working in the neonatal unit and satisfaction with working conditions; the second part of the questionnaire consists of thirteen statements about the practice of nursing professionals in assessing the pain of the newborn. The assessment of the practice was measured through five Likert items, composed of the categories "never", "rarely", "frequently", "usually" and "always".

Data were double-entered in Microsoft Excell software version 2013 and subsequently checked; no absence of completion was observed. The variables related to the characterization of the participants were presented through the frequency measures, and for age the mean and standard deviation were presented. The association of sociodemographic variables with each category of nursing team performance in the NICU was verified.

The analysis of the nursing professionals' practice was performed through the answers of the Likert items, using the sum of the percentages of answers of each category that were considered adequate, grouping the categories "frequently" (3), "usually" (4) and "always" (5) for positive answers and "never" (1), "rarely" (2) for negative ones. Thus, the positive responses of the participants were considered adequate practice (AP) according to the literature used [1.10].

Adequate Practice was classified as "yes" or "no", based on which analyses were performed of the association of each professional category (nurse, nursing technician and nursing assistant) with time of professional experience, time of experience in the neonatal area, time working in the neonatal unit and satisfaction with working conditions, through the chi-square and Fisher's exact probability tests, with adoption of the significance level of 5%. The program R version 3.6.1 was used.

The project was approved by the Research Ethics Committee of the institution, in accordance with the current rules of the National Health Council number 001/2013 and resolution 466/12, under opinion number 3,632,290.

RESULTS

Thirty-five nursing professionals participated in the study, 10 nurses, 15 nursing technicians and 10 nursing assistants. Table 1 shows the sociodemographic characteristics of the participants and their association with the different categories.

There was a difference between the professional categories with regard to professional training and length of professional experience. Among the categories of nursing technician and assistant, 60% and 50% have undergraduate degrees, respectively, and those who have graduate degrees are in the neonatal area. Of the total number of professionals, 88.6% have 11 years or more of professional experience.

Table 2 refers to the response of the assertions of the questionnaire with the Likert items, in which the percentage of appropriate practice for each assertion was grouped.

Table 1 – Sociodemographic characteristics and their association with the different categories of nursing professionals. Niterói. Rio de Janeiro. 2018.

Sociodemographic variables	General n (%)	p value	Category of performance of the nursing professional in the neonatal intensive care unit		
			Nurse n (%)	Nursing technician n (%)	Nursing Assistant n (%)
Nursing professionals	35		10	15	10
Sex (%)		0.4972			
Female	32		9 (90)	13 (86.7)	10 (100)
Male	3		1 (10)	2 (13.3)	0
Age, years, mean (SD)*	45.6 (8.6)		45.4 (8.2)	43.5 (9.4)	48.9 (7.6)
Professional education		0.008626			
High school	11		0	6 (40)	5 (50)
Professional degree	15		3 (30)	8 (53.3)	4 (40)
Residence/ Specialization	3		2 (20)	0	1 (10)
Master's Degree	6		5 (50)	1 (6.7)	0
Time elapsed after completing training (%)		0.1711			
From 1 to 10 years	4		2 (20)	2 (13.3)	0
From 11 to 20 years	14		4 (40)	8 (53.3)	2 (20)
Greater than or equal to 21 years	17		4 (40)	5 (33.3)	8 (80)
Time of professional experience (%)		0.01826			
From 1 to 10 years	4		3 (30)	1 (6.7)	0
From 11 to 20 years	15		3 (30)	10 (66.7)	2 (20)
Greater than or equal to 21 years	16		4 (40)	4 (26.7)	8 (80)
Time of experience in the neonatal area (%)		0.08285			
< 10 years	17		4 (40)	7 (46.7)	6 (60)
11 to 20	11		4 (40)	7 (46.7)	0
Greater than or equal to 21 years	7		2 (20)	1 (6.7)	4 (40)
Time working in the neonatal unit (%)		0.233			
< 10 years	22		4 (40)	11 (73.3)	7 (70)
11 to 20	9		5 (50)	3 (20)	1 (10)
Greater than or equal to 21 years	4		1 (10)	1 (6.7)	2 (20)
Satisfaction with working conditions (%)		1			
Yes	28		8 (80)	12 (80)	8 (80)
No	7		2 (20)	3 (20)	(20)

*Mean and Standard Deviation

Source: Prepared by the authors, 2022.

Table 2 – Adequate practice of nursing professionals regarding the assessment of neonatal pain. Niterói. Rio de Janeiro. 2018.

Assertive	Never n (%)	Rarely n (%)	Frequently n (%)	Usually n (%)	Always n (%)	AP n (%)
A1- I identify pain through the baby's crying.						33 (94.3)
Nurses (n=10)	0	0	2 (20.0)	4 (40.0)	4 (40.0)	
Nursing technicians (n=15)	1 (6.7)	0	2 (13.3)	11 (73.3)	1 (6.7)	
Nursing assistants (n=10)	0	1 (10.0)	2 (20.0)	7 (70.0)	0	
A2- I identify pain through the baby's facial expression.						30 (85.7)
Nurses	0	0	0	5 (50.0)	5 (50.0)	
Nursing Technicians	1 (6.7)	2 (13.3)	4 (26.7)	3 (20.0)	5 (33.3)	
Nursing assistants	0	2 (20.0)	0	6 (60.0)	2 (20.0)	
A3- I identify pain through the body movement of the baby's arms and legs.						31 (88.6)
Nurses	0	1 (10.0)	2 (20.0)	3 (30.0)	4 (40.0)	
Nursing Technicians	1 (6.7)	2 (13.3)	5 (33.3)	4 (26.7)	3 (20.0)	
Nursing assistants	0	0	4 (40.0)	5 (50.0)	1 (10.0)	
A4- I identify pain through changes in the baby's physiological parameters.						29 (82.9)
Nurses	0	3 (30.0)	1 (10.0)	3 (30.0)	3 (30.0)	
Nursing Technicians	1 (6.7)	1 (6.7)	7 (46.7)	5 (33.3)	1 (6.7)	
Nursing assistants	0	1 (10.0)	1 (10.0)	7 (70.0)	1 (10.0)	
A5- I assess pain in babies through crying.						33 (94.3)
Nurses	0	0	2 (20.0)	4 (40.0)	4 (40.0)	
Nursing Technicians	1 (6.7)	0	2 (13.3)	11 (73.3)	2 (13.3)	
Nursing assistants	0	1 (10.0)	3 (30.0)	4 (40.0)	1 (10.0)	
A6- I assess pain through the baby's facial expression.						29 (82.9)
Nurses	0	0	1 (10.0)	5 (50.0)	4 (40.0)	
Nursing Technicians	1 (6.7)	2 (13.3)	3 (20.0)	6 (40.0)	3 (20.0)	
Nursing assistants	1 (10.0)	2 (20.0)	1 (10.0)	5 (50.0)	1 (10.0)	
A7- I assess pain through the baby's body movement and agitation.						32 (91.4)
Nurses	0	1 (10.0)	3 (30.0)	2 (20.0)	4 (40.0)	
Nursing Technicians	0	1 (6.7)	4 (26.7)	8 (53.3)	2 (13.3)	
Nursing assistants	0	1 (10.0)	2 (20.0)	7 (70.0)	0	

(continues)

Assertive	Never n (%)	Rarely n (%)	Frequently n (%)	Usually n (%)	Always n (%)	AP n (%)
A8- I assess pain by measuring the baby's vital signs.						27 (77.1)
Nurses	0	2 (20.0)	2 (20.0)	3 (30.0)	3 (30.0)	
Nursing Technicians	1 (6.7)	2 (13.3)	5 (33.3)	6 (40.0)	1 (6.7)	
Nursing assistants	0	3 (30.0)	3 (30.0)	3 (30.0)	1 (10.0)	
A9- I assess pain in babies along with vital signs.						27 (77.1)
Nurses	1 (10.0)	0	3 (30.0)	3 (30.0)	3 (30.0)	
Nursing Technicians	0	3 (20.0)	3 (20.0)	7 (70.0)	2 (13.3)	
Nursing assistants	0	3 (30.0)	3 (30.0)	2 (20.0)	2 (20.0)	
A10- I use scales to assess pain in babies.						6 (17.1)
Nurses	4 (40.0)	5 (50.0)	1 (10.0)	0	0	
Nursing Technicians	8 (53.3)	2 (13.3)	1 (6.7)	2 (13.3)	2 (13.3)	
Nursing assistants	7 (70.0)	3 (30.0)	0	0	0	
A11- I record in the medical record the manifestations of pain of babies.						29 (82.9)
Nurses	0	2 (20.0)	4 (40.0)	0	4 (40.0)	
Nursing Technicians	0	2 (13.3)	3 (20.0)	4 (26.7)	6 (40.0)	
Nursing assistants	0	2 (20.0)	2 (20.0)	3 (30.0)	3 (30.0)	
A12- I communicate and discuss with the health team about the babies' manifestations of pain.						33 (94.3)
Nurses	0	1 (10.0)	3 (30.0)	4 (40.0)	2 (20.0)	
Nursing Technicians	0	0	4 (26.7)	3 (20.0)	8 (53.3)	
Nursing assistants	0	1 (10.0)	4 (40.0)	2 (20.0)	3 (30.0)	
A13- I plan and implement the individualized care of the baby during his hospitalization.						28 (80.0)
Nurses	0	2 (20.0)	2 (20.0)	1 (10.0)	5 (50.0)	
Nursing Technicians	0	3 (20.0)	4 (26.7)	3 (20.0)	5 (33.3)	
Nursing assistants	1 (10.0)	1 (10.0)	2 (20.0)	2 (20.0)	4 (40.0)	

*AP: Adequate practice.

Source: Prepared by the authors, 2022.

The lowest percentage of adequate practice was related to the use of scales to assess pain in infants. Pain assessment by measuring vital signs or along with vital signs also presented a lower percentage compared to other items of the form.

Table 3 presents the variables "length of professional experience", "length of experience in the neonatal area", "time working in the unit" and "satisfaction with working conditions", and their relationship with appropriate practice.

Satisfaction with working conditions influenced the adequate practice of nursing assistants in relation to the identification of pain through the baby's facial expression; it also influenced the practice of nurses regarding the planning and implementation of individualized care of the baby during hospitalization.

Working time in the neonatal unit influenced the practice of nurses in identifying pain through the body movement of the baby's arms and legs and assessment through the baby's body movement and agitation; in these cases, adequate practice was related to a working time of up to 20 years.

Nursing assistants who have worked in the unit for less than 10 years or more than 21 years showed adequate practice in communicating and discussing with the health team about the babies' manifestations of pain.

The length of professional experience, in turn, influenced nursing technicians: those with experience of 11 years or more identified pain through changes in the baby's physiological parameters.

Table 3 – Association of the appropriate practice of each professional category with time of professional experience, time of experience in the neonatal area, time working in the unit and satisfaction with working conditions. Niterói. Rio de Janeiro. 2021.

Appropriate practice/ professional category	Time of professional experience p-value	Time of experience in the neonatal area p-value	Time working in the unit p-value	Be satisfied with working conditions p-value
A1- I identify pain through the baby's crying.				
Nurses	NA*	NA	NA	NA
Nursing technicians	0.765	0.5421	0.823	1
Nursing assistants	NA	NA	0.788	1
A2- I identify pain through the baby's facial expression.				
Nurses	NA	NA	NA	NA
Nursing technicians	0.3916	0.6997	0.5057	1
Nursing assistants	NA	NA	0.5853	0.0297
A3- I identify pain through the body movement of the baby's arms and legs.				
Nurses	0.4346	0.1084	0.00673	1
Nursing technicians	0.2096	0.6997	0.5057	0.8718
Nursing assistants	NA	NA	NA	NA
A4- I identify pain through changes in the baby's physiological parameters.				
Nurses	0.1965	0.2397	0.1173	1
Nursing technicians	0.0418	0.9209	0.6573	1
Nursing assistants	NA	NA	0.7881	1
A5- I assess pain in babies through crying.				
Nurses	NA	NA	NA	NA
Nursing technicians	0.765	0.5421	0.823	1
Nursing assistants	NA	NA	0.788	0.4292

(continues)

Appropriate practice/ professional category	Time of professional experience p-value	Time of experience in the neonatal area p-value	Time working in the unit p-value	Be satisfied with working conditions p-value
A6- I assess pain through the baby's facial expression.				
Nurses	NA	NA	NA	NA
Nursing technicians	0.3916	0.6997	0.5057	1
Nursing assistants	NA	NA	0.6649	0.1205
A7- I assess pain through the baby's body movement and agitation.				
Nurses	0.4346	0.1084	0.00673	1
Nursing technicians	0.2292	0.5421	0.823	1
Nursing assistants	NA	NA	0.7881	0.4292
A8- I assess pain by measuring the baby's vital signs.				
Nurses	0.0541	0.1534	0.2865	0.8433
Nursing technicians	0.2096	0.6997	0.5057	0.8718
Nursing assistants	NA	NA	0.2022	0.863
A9- I assess pain in babies along with vital signs.				
Nurses	0.2735	0.4346	0.5738	0.4292
Nursing technicians	0.2096	0.6997	0.5057	0.8718
Nursing assistants	NA	NA	0.3992	0.863
A10- I use scales to assess pain in babies.				
Nurses	0.2735	0.4346	0.5738	1
Nursing technicians	0.1094	0.1801	0.0984	1
Nursing assistants	NA	NA	NA	NA
A11- I record the babies' manifestations of pain in the medical record.				
Nurses	0.1534	0.335	0.08208	1
Nursing technicians	0.6973	0.2675	0.6573	1
Nursing assistants	NA	NA	0.0981	1
A12- I communicate and discuss with the health team about the babies' manifestations of pain.				
Nurses	0.2735	0.4346	0.5738	0.4292
Nursing technicians	NA	NA	NA	NA
Nursing assistants	NA	NA	0.0067	1
A13- I plan and implement the individualized care of the baby during his hospitalization.				
Nurses	0.5639	0.7316	0.8553	0.0297
Nursing technicians	0.3916	0.6997	0.5057	0.8718
Nursing assistants	NA	NA	0.0981	1

*NA: Not Applicable

Source: Prepared by the authors, 2022.

DISCUSSION

The analysis of the practice of nursing professionals regarding the assessment of newborn pain showed that factors such as time working in the unit, time of professional experience and satisfaction with working conditions influenced the appropriate practice. The lowest percentage of AP was found in the use of scales to assess pain in infants (17.1%). With regard to how they assess the pain of the newborn, most professionals (77.1%) reported to be by measuring vital signs. As for the moment when they assess it, 77.1% reported that they do so along with the vital signs of babies. These results show a precarious nursing practice regarding the assessment of neonatal pain.

It is important to emphasize that this study had a significant number of nursing assistants. Despite the recent normative regarding the procedures for registration of mid-level technical specialization in Nursing points out that the assistance to the neonatal critical patient is not within the scope of this category[11], most work in the unit for up to 10 years, 50% have an undergraduate degree and, among these, one has a graduate degree in the neonatal area. In addition, the regulations are after the period of data collection.

Among the professional categories, there was a difference with regard to professional training and length of professional experience, because among the categories of nursing technician and assistant, half or more have undergraduate degrees, while those who have graduate degrees are from the neonatal area. Thus, the percentage of those who have higher education was higher in relation to the mean level. Regarding the length of experience of the study professionals, 88.6% have 11 years or more of experience.

Similar results were found in the study that sought to identify the frequency of difficulty of professionals in observing the parameters of the Neonatal Infant Pain Scale (NIPS) in the newborn. Forty professionals participated, including nurses, nursing technicians and nursing residents. About 90% had completed some type of graduate degree, as well as working time of 75% was longer than 11 years[5]. Another study interviewed 86 health professionals and described and analyzed their attitudes towards the assessment and treatment of pain of newborns undergoing painful procedures in the neonatal unit. Among the nursing assistants and technicians, three (7.14%) had a complete nursing degree, one (2.38%) had a neonatal specialization and four (9.52%) were attending graduation[8].

Despite the good qualification of the participants in this study, the use of scales to measure neonatal pain was still a difficulty in their professional practice, which is the item with the lowest percentage found, followed by pain assessment by measuring vital signs or along with vital signs. Studies[1,5] have found similar results, evidencing a neonatal pain assessment practice that is still not well established.

In the international scenario, a study that described and compared the practice of pain assessment including the use of scales in neonatal intensive care units in Norway and Sweden showed that, of the 52 units, only 86.5% used scales to assess pain and there was no information on the time or frequency of assessments[7]. A study conducted in Rio de Janeiro with 86 health professionals found that 27% of nurses reported generally performing pain assessment along with the measurement of vital signs, while 30.9% of nursing assistants/technicians rarely do so[8].

It is important to highlight of the frequent assessment of newborn pain, considered as the fifth vital sign. The identification, assessment, treatment and reassessment of pain are essential for faster recovery, better quality of care and neuronal preservation of the newborn[4,8].

However, there are factors that can positively or negatively influence this practice. When it came to the identification of pain through the body movement of the baby's arms and legs and assessment through the baby's body movement and agitation, parameters often used to identify neonatal pain[5,7-8], working

time in the neonatal unit affected the practice of the nurses in this study, because those with up to 20 years of work showed adequate practice. Another study sought to verify the knowledge and practice of 51 nurses about the pain management of newborns admitted to neonatal intensive care units: among its results, it was found that the parameters that nursing professionals had greater difficulty observing were the flexion and extension of the legs and alertness, indicated by 32.5%[5]. It is noteworthy that most of these professionals had up to 10 years of work, unlike the nurses in this study, which can be an improvement factor in critical and sensitive observation.

The time working in the unit also encouraged nursing assistants to communicate and discuss with the health team about the babies' manifestations of pain, as most had adequate practice. Communication between members of the health team is important so that care is established in an integrated and systematic manner, avoiding undertreatment of pain. A study with nurses found in its results that 51% exercised communication between the health team through discussion, registration in medical records and communication with the head of the sector[1].

Regarding the identification of pain, the physiological changes were pointed out by nursing technicians with a professional experience of 11 years or more. It is noteworthy that only physiological changes do not reflect the presence or absence of pain, so it is essential to associate the physiological parameters with the behavioral ones systematically identified through scales. The identification of pain plays a key role in carrying out preventive and effective measures to reduce neonatal pain[12].

Another factor that motivated the AP of nursing assistants regarding the identification of pain through the baby's facial expression was satisfaction with working conditions. This variable was also verified in a Brazilian study conducted with 86 health professionals, among whom 78.5% of nursing assistants and technicians and 31.8% of nurses said they were satisfied with the workload and physical structure of the unit. The cited study also reported that 45.2% of nursing assistants and technicians evaluated pain through facial expression[8].

Regarding the planning and implementation of individualized care of the baby during hospitalization, satisfaction with working conditions was also associated with the adequate practice of nurses. Individualized care is the provision of care modulated by observing the responses or cues offered by the newborn, as signs of approach and/or withdrawal at the time he receives professional attention. In this sense, the planning of care depends on what each newborn presents as a response to receive attention and should be performed by the entire health team[13], prioritizing healthy neurodevelopment.

It is believed that the greatest highlight of this study was the AP for identification and assessment of pain through physiological and behavioral parameters; despite this, the use of scales was minimal. It is noteworthy that the use of scales for pain assessment is essential for its proper management, and it is important to translate knowledge in the scenario in order to strengthen pain assessment through validated scales widely recommended by the literature. In view of this scenario, it is recommended to continue this study through the implementation of the instrument that best suits the work process of the team of health professionals.

Changes in practice are not easily established, it is necessary to transmit and apply knowledge in an organized way, using a theoretical framework that adapts to the team and the work process. In addition, there is a need to establish intervention strategies in practice and evaluate their results. This is a continuous and dynamic process that needs to be aligned with managers and institutional guidelines[1,9].

CONCLUSION

In the sample studied, the practice of nursing professionals was largely satisfactory.

However, pain assessment using measurement scales was less than recommended, which may directly and negatively reflect on the treatment of neonatal pain. It can be stated that factors such as working time in the unit, time of professional experience and satisfaction with working conditions influenced the proper practice of nursing professionals.

Thus, this study contributes to the scientific community by providing data that can support new studies and encourage managers to invest in training and continuing education programs, as well as to promote satisfactory working conditions. At the individual level, this study can encourage professionals to seek improvement of their practices based on the knowledge established by the scientific literature. The site that was the scene of this study received a significant contribution, since the results can support the translation of knowledge through the implementation of a scale that guarantees the assessment of newborn pain by nursing team professionals.

The study's limitation was the assessment of the practice of a single neonatal intensive care unit, which prevents the results from being generalized. We recommend that more robust studies be carried out in order to identify the difficulties in daily professional practice related to the proper management of neonatal pain, and that, based on the results, interventions be applied in order to improve the quality of nursing care for newborns at risk, contributing to their safety and neurodevelopment.

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