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# The experiences of intensive care nurses in the assessment and intervention of pain relief in children

VIVÊNCIAS DE ENFERMEIROS INTENSIVISTAS NA AVALIAÇÃO E INTERVENÇÃO PARA ALÍVIO DA DOR NA CRIANÇA

EXPERIENCIAS DE ENFERMEROS INTENSIVISTAS EN LA EVALUACIÓN E INTERVENCIÓN PARA EL ALIVIO DEL DOLOR EN EL NIÑO

Michele Zachary dos Santos<sup>1</sup>, Denise Miyuki Kusahara<sup>2</sup>, Mavilde da Luz Gonçalves Pedreira<sup>3</sup>

## ABSTRACT

Descriptive survey of daily practical experiences of pediatric nurses in the assessment and intervention to pain relief in children, during nursing care provided in pediatric and neonatal intensive care units, and the influence of the infrastructure of care and system organization. The sample was made up of 109 nurses. The principal results indicated that the majority of the nurses considered the academic training obtained as insufficient to support this aspect of nursing care; that they had not received local training in evaluating pain or in relief interventions; that the staff ratio is inadequate and as well as the availability of institutional guidelines to improve the quality of analgesia. It was concluded that nurses value the assessment and intervention to pain relief in children, but describe aspects which compromise practice: lack of collaborative practice, lack of processes definition, lack of formal and continuing education and lack of infrastructure. These aspects compromise the implementation of scientific evidences capable of improving practical aspects of analgesia in children under intensive care.

## DESCRIPTORS

Pain  
Child  
Intensive care  
Nursing care  
Analgesia

## RESUMO

Survey descritivo das experiências práticas das enfermeiras pediátricas na avaliação e intervenção, para aliviar dores em crianças durante os cuidados em unidades pediátricas e de tratamento intensivo neonatal, e a influência da infraestrutura de cuidados e organização do sistema. Amostra foi feita com até 109 enfermeiras. Os resultados principais indicaram que a maioria considerou o treinamento acadêmico insuficiente para apoiar este aspecto dos cuidados; não receberam treinamento local na avaliação de dor ou intervenções para aliviá-la; a proporção do pessoal é inadequada assim como a disponibilidade de instruções institucionais para melhorar a qualidade da analgesia. Concluiu-se que as enfermeiras valorizam a avaliação e intervenção para o alívio de dor em crianças, mas descrevem os aspectos que comprometem a prática: falta de colaboração, falta da definição de processos, falta de educação formal e contínua e de infraestrutura. Estes aspectos comprometem a implementação das evidências científicas capazes de melhorar os aspectos práticos de analgesia nas crianças sob cuidados intensivos.

## DESCRIPTORES

Dor  
Criança  
Terapia intensiva  
Cuidados de enfermagem  
Analgesia

## RESUMEN

Survey descriptivo sobre experiencias prácticas diarias de enfermeras pediátricas en evaluación e intervención del alivio del dolor en niños, durante cuidados de enfermería brindados en unidades de cuidados intensivos pediátrica y neonatal, e influencia de la infraestructura de cuidado y organización del sistema. La muestra consistió en 109 enfermeras. La mayoría de las enfermeras consideraron que la capacitación académica obtenida era insuficiente para enfrentarse a tal aspecto del cuidado de enfermería; relataron no recibir capacitación institucional en evaluación del dolor e intervenciones paliativas; manifestaron insuficiencia de cantidad de personal, así como indisponibilidad de directivas institucionales para mejorar la calidad de la analgesia. Las enfermeras valorizaron la evaluación e intervenciones paliativas, aunque describieron aspectos que comprometen la práctica: habitualidad colaborativa, de definición en procesos, de capacitación formal continuada y deficiencias estructurales. Esto dificulta la implementación de evidencias científicas capaces de mejorar aspectos prácticos de la analgesia en niños bajo cuidados intensivos.

## DESCRIPTORES

Dolor  
Niño  
Cuidados intensivos  
Atención de enfermería  
Analgesia

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## INTRODUCTION

Pain is a complex, subjective and multifactorial phenomenon, defined by the International Association for the Study of Pain (IASP) as *an unpleasant sensory and emotional experience associated with actual or potential tissue damage*<sup>(1)</sup>. It is characterized by complexity, subjectivity and multidimensionality, including psychological and social aspects of the individual's life, and may not be regarded as a purely physical phenomenon<sup>(2)</sup>. The relief of pain and the promotion of comfort are essential interventions that involve – in addition to scientific knowledge and technical skills – ethical and humanitarian issues in nursing practice. The importance of studying pain is due to the fact that the sensation creates stress, suffering and discomfort to the patient and their family<sup>(3)</sup>. This being so, with the goal of improving the treatment of pain, the Joint Commission on Accreditation on Healthcare Organizations (JCAHO), established the assessment of pain as a fifth vital sign as an indicator of the quality of care. However, it should be evaluated and recorded at the same time as the other vital signs, so that its assessment may be standardized, along with the actions undertaken, their basis and the results obtained<sup>(4)</sup>.

Gaps in knowledge about pain and analgesia result in inadequate treatment and failure to value the child's complaints of pain by many health care professionals, who are unaware of the varying forms of pain assessment, including scales and the different indications for the use of analgesics, as well as the actual, desirable and side-effects verified<sup>(5-7)</sup>. The management of pain in child and neonate is complex and includes the child, family members and health care professionals' individual characteristics<sup>(2)</sup>. Another issue of fundamental importance is the participation of the parents in the processes of assessing pain and providing pain relief interventions, as they know their children and are sensitive to changes which take place in their behavior<sup>(8)</sup>.

Studies have shown a quantitative lack of nursing professionals, as well as shortcomings in these professionals' training in the national health system, which results in excessive workload and compromise the quality of the care given. These issues compromise patient safety and make it difficult to attain excellence in nursing care, as the nurse spends a lot of time trying to correct systemic problems, a situation which can compromise the individualization and integrity of patient care<sup>(9)</sup>. Because the identification of pain, effective steps for pain relief and the assessment of their outcomes are dynamic and interdependent processes, this study should further the understanding of nurses' experience in care delivery for seriously ill children and

neonates with regard to the assessment of pain relief and related interventions, so as to identify issues referent to the care provision system that might compromise nursing practice and patient safety.

## METHOD

This is a descriptive survey, developed during the II International Symposium in Neonatal and Pediatric Intensive Care (11th to 14th November 2008) at the Federal University of São Paulo. Authorization was obtained from the event organizers and the nurses gave their consent to participate. The sample was made up of nurses who agreed to participate in the research under the terms expressed for their free and informed consent and who handed back the filled-out questionnaire. Data collection was carried out once approval had been given by the institution's Research Ethics Committee. To study the research variables, a questionnaire was elaborated, which consisted of assertions about painful phenomena, focusing on the assessment, intervention and measurement of pain relief outcomes, as well as care structure and process characteristics that might interfere in pain management in nursing practice. These variables were measured by means of a Likert scale, made up of the categories 'strongly agree (AS)', 'agree' (A), 'disagree' (D), 'strongly disagree' (SD), 'neither agree nor disagree' (NAND), 'never' (N), 'rarely' (R), 'sometimes' (S), 'frequently' (F) and 'always' (AL). The instrument was put together based on the background literature and the researchers' academic and professional experience regarding pain, pediatrics, pediatric intensive care, evaluation of quality in health service quality assessment and patient safety. A statistical descriptive analysis of the data was implemented, with the categorical variables analyzed according to absolute and relative frequencies and the numerical variables according to median, average and standard variation.

## RESULTS

The sample was made up of 109 nurses, all of whom were female, with an average age of 31.3(±6.5), mainly from the south-west region of Brazil (64.2%). The majority had post-graduate qualifications *lato sensu* (61.5%) or *stricto sensu*<sup>(a)</sup> (20.2%), an average of 8.2 (±7.0) years since graduation, an average 1.4 (±0.8) held more than one job, and the clinical field was the principal area of activity (84.3%). According to their post-graduation ar-

<sup>(a)</sup> The major difference is that of these two post-graduate degrees, the latter is necessary for those intending to progress to Master and PhD courses. Translator's note.

The management of pain in child and neonate is complex and includes the child, family members and health care professionals' individual characteristics. Another issue of fundamental importance is the participation of the parents in the processes of assessing pain and providing pain relief interventions...

eas, it was observed that 71.1% were specialized in pediatrics, neonatology, pediatric or neonatal intensive care, while 28.9% were specialized in other areas. Regarding the areas they worked in, it may be identified that the majority (93.4%) work in pediatrics or neonatology, with intensive care (69.7%) being the main area of work, followed by clinics (15.7%).

Most (73.4%) of the nurses state that they received academic training with content relating to pain and analgesia in pediatrics, although 65.2% consider that the training was insufficient to underpin their professional practice. Also, about a third of the sample had never received formal training on pain relief (26.6%). As to the origins of the training, there was academic training (47.5%), obtained in undergraduate, specialization or Masters' courses, followed by training received during

courses or events (27.5%), and through a combination of both training forms (25.0%).

Table 1 presents the responses of the nurses concerning the process of assessing pain in children and neonates, in which they state that the nurse is the health care professional who most values the assessment of pain; that the scales favor the process of assessing pain; that assessing the facial expression is one of the principal methods for assessing pain in neonates and that physiological parameters are more specific for evaluating pain. They believe that the length of clinical experience in the area and the continuous infusion of analgesics in critically ill children interfere in the assessment carried out. By far the majority agree that many children may suffer pain as a result of inadequate assessment.

**Table 1-** The nurses' responses about the process of evaluation of pain in children and neonates - São Paulo, 2008

	CF	C	D	DF	NCND
	f (%)	f (%)	f (%)	f (%)	f (%)
Nurses value the assessment of pain more than other health care professionals (n= 109)	39(35.8)	58(53.2)	9(8.3)	-	3(2.7)
Doctors are always concerned about knowing what a child's pain assessment is (n=109)	-	11(10.1)	71(65.1)	26(23.9)	1(0.9)
The scales favor the process of assessing pain (n=106)	38(35.9)	62(58.5)	5(4.7)	-	1(0.9)
The evaluation of a neonate's facial expression is one of the principal methods for assessing pain in this pediatric group. (n=109)	23(21.1)	58(53.2)	21(19.3)	2(1.8)	5(4.6)
Physiological parameters such as alterations of cardiac or respiratory frequencies, blood pressure and oxygen saturation are more specific for pain assessment. (n=108)	12(11.1)	63(58.3)	24(22.2)	3(2.8)	6(5.6)
It's easier to assess pain in neonates than in children, because older children may demonstrate behavior indicating pain relating to other sensations, such as fear or stress. (n=109)	1(0.9)	44(40.4)	44(40.4)	11(10.1)	9(8.2)
Assessment of pain in neonates is more difficult than in children and must be done by specialists. (n=108)	10(9.3)	37(34.2)	42(38.9)	4(3.7)	15(13.9)
A nurse's length of practice in pediatrics and neonatology influences her competency to assess pain. (n=108)	36(33.3)	60(55.5)	10(9.3)	-	2(1.9)
The continuous infusion of analgesics in seriously ill children and neonates interferes with routine assessment of pain. (n=109)	8(7.3)	60(55.1)	29(26.6)	4(3.7)	8(7.3)
Many children may suffer pain due to inadequate pain assessment. (n=109)	51(46.8)	52(47.7)	4(3.7)	2(1.8)	-

SA – Strongly agree; A – Agree; D – Disagree; SD – Strongly disagree; NAND – Neither agree nor disagree

Table 2 presents the results of the investigation of the participating nurses' care experiences, according to the responses obtained to the assertions proposed by the study.

The majority of participants described the assessment as not being a routine activity in their workplace, and stated that it is not considered a fifth vital sign. They report that they do not receive frequent training on the subject and are not sure that there will be enough registered nurses for them to carry out the assessments, or that on-the-job training will allow all health care professionals to assess pain in a systematized way. They agree that the parents provide key information concerning the assessment of their children's pain, although the participation of parents is not a frequent practice. Table 3, below, identifies aspects of nurses' daily practice related to how analgesics are prescribed and administered.

Regarding the administration of analgesics prescribed at the doctor's discretion most of the nurses disagree that it is always the doctor who carries out the pain assessment, although they know that the methods if necessary and upon medical criteria are different to nursing practice in administering analgesics. The majority believe that it is possible for pre-school children to use patient-controlled-analgesia and for their parents too, when appropriately trained.

In Table 4, which presents questions related to interventions for pain relief in children and neonates, the interviewees affirm that analgesia is not carried out based on scientific evidence, that dipyrone is the most prescribed medication for pain, and that non-pharmacological methods for relieving pain are well-accepted in practice.

They disagree that analgesia is always given before invasive procedures, but agree that the use of supplementary analgesia is necessary for painful procedures. They believe that children are at greater risk of respiratory depression than adults when opioid analgesics are used, and also affirm that analgesics can cause adverse events and have serious side-effects in neonates, and should only be prescribed when the presence of pain has been confirmed. It is noted that the nurses disagree that in intensive care units, analgesia must always be associated with sedation to achieve the best therapeutic efficiency, and affirm that seriously-ill children and neonates with continuous infusion of sedatives

need supplementary analgesia. Regarding the statement that they have the materials and equipment necessary for carrying out appropriate interventions for relieving pain in children there were differences of opinion: 51.8% agreed and 48.2% disagreed. They cannot rely on having enough staff in the team, and do not receive constant training in their institutions such that they can implement scientific evidence in the practice of analgesia with their patients. Moreover, they refer to the inexistence of institutional protocols which would permit them to improve the quality of practice in analgesia, and affirm that the presence of the pain team improves the quality of care.

**Table 2** – Description of the nurses' care experiences in the process of evaluating pain in children and neonates - São Paulo, 2008

	CF	C	D	DF	NCND
	f(%)	f(%)	f(%)	f(%)	f(%)
The assessment of pain in children is a routine activity carried out in my workplace. (n=109)	19(17.4)	34(31.2)	41(37.6)	15(13.8)	-
Pain is always evaluated as a "fifth vital sign" in my workplace. (n=109)	19(17.4)	21(19.3)	47(43.1)	20(18.4)	2(1.8)
We have frequent training which enables us to use scientific evidence relating to the assessment of pain. (n=109)	6(5.5)	12(11.0)	59(54.1)	30(27.6)	2(1.8)
We are sure that there are enough nursing professionals for us to carry out pain assessment. (n=109)	9(8.3)	26(23.8)	51(46.8)	22(20.2)	1(0.9)
Nurse technicians and nursing aids have knowledge which allows them to assess children's and neonates' pain appropriately. (n=108)	6(5.6)	37(34.2)	47(43.4)	9(8.4)	9(8.4)
In my workplace there is training which allows the health care professionals to assess pain in a systematized approach. (n=109)	5(4.6)	16(14.7)	50(45.8)	38(34.9)	-
The parents can provide key information regarding pain assessment. (n=109)	22(20.2)	76(69.7)	8(7.3)	-	3(2.8)
The parents always participate in pain assessment in my workplace. (n=108)	2(1.9)	22(20.4)	45(41.6)	34(31.5)	5(4.6)
The children cared for in my unit always have their pain assessed adequately. (n=109)	2(1.8)	21(19.3)	58(53.2)	23(21.1)	5(4.6)

SA – Strongly agree; A – Agree; D – Disagree; SD – Strongly disagree; NAND – Neither agree nor disagree

**Table 3** – Ways medication is prescribed and administered, according to nurses - São Paulo, 2008

	CF	Cf	Df	DF	NCND
	f(%)	(%)	(%)	f(%)	f(%)
Doctors always prescribe analgesics when asked to by the nursing team. (n=109)	15(13.8)	54(49.5)	25(22.9)	9(8.3)	6(5.5)
To carry out the administration of analgesics prescribed ADD – at Doctor's Discretion – it is always the doctor who assesses the pain. (n=108)	4(3.7)	12(11.1)	60(55.5)	27(25.0)	5(4.7)
The methods if necessary and at doctor's discretion are alike in terms of nursing practice in the administration of analgesics. (n=106)	5(4.7)	26(24.5)	41(38.7)	28(26.4)	6(5.7)
The best method for analgesia is the continuous administration of drugs. (n=108)	4(3.7)	16(14.8)	66(61.1)	10(9.3)	12(11.1)
The best method of analgesia is the intermittent administration of drugs at programmed times. (n=108)	3(2.8)	39(36.1)	45(41.6)	8(7.4)	13(12.1)
The best method of analgesia is intermittent administration at doctor's discretion. (n=108)	1(0.9)	12(11.1)	64(59.3)	21(19.4)	10(9.3)
The best method of analgesia is intermittent administration if necessary. (n=108)	5(4.7)	39(36.1)	34(31.5)	16(14.8)	14(12.9)
Pre-school children, adequately trained, can use patient-controlled analgesia. (n=109)	6(5.5)	52(47.7)	26(23.9)	5(4.6)	20(18.3)
The parents, when adequately trained, can action patient-controlled analgesia for the relief of their child's pain (n=109)	10(9.2)	54(49.5)	24(22.0)	4(3.7)	17(15.6)

SA – Strongly agree; A – Agree; D – Disagree; SD – Strongly disagree; NAND – Neither agree nor disagree

**Table 4** – Interventions for pain relief in children and neonates, according to the nurses - São Paulo, 2008

	CF	C	D	DF	NCND
	f (%)	f (%)	f (%)	f (%)	f (%)
Analgesia for children and neonates in my unit is carried out based on up-to-date scientific evidence. (n=109)	10(9.2)	39(35.8)	34(31.2)	19(17.4)	7(6.4)
Dipyrone is the most-prescribed medication for analgesia in children and neonates. (n=109)	17(15.6)	51(46.8)	24(22.0)	16(14.7)	1(0.9)
In my unit, children and neonates receive powerful analgesics whenever they have intense pain. (n=109)	8(7.3)	46(42.2)	45(41.3)	7(6.4)	3(2.8)
In my unit, children and neonates subjected to elective tracheal intubation always receive analgesics before the procedure. (n=109)	19(17.4)	29(26.6)	38(34.9)	18(16.5)	5(4.6)
In my unit, children and neonates submitted to venous or arterial catheterization always receive analgesics before the procedure. (n=108)	11(10.2)	24(22.2)	47(43.5)	23(21.3)	3(2.8)
Non-pharmacological methods of pain relief are well-accepted in practice. (n=109)	17(15.6)	56(51.4)	29(26.6)	6(5.5)	1(0.9)
Children present greater risk of respiratory depression than adults on receiving opioid analgesics. (n=109)	18(16.5)	61(56.0)	14(12.8)	4(3.7)	12(11.0)
In intensive care units, analgesia must always be associated with sedation to achieve the best therapeutic efficiency. (n=109)	8(7.3)	33(30.4)	53(48.6)	7(6.4)	8(7.3)
Seriously-ill children and neonates with continuous infusion of sedatives do not need analgesia. (n=109)	2(1.8)	6(5.5)	50(45.8)	43(39.6)	8(7.3)
Seriously-ill children and neonates with continuous infusion of analgesics do not need supplementary analgesia while painful procedures are being carried out. (n=109)	2(1.8)	6(5.5)	59(54.2)	34(31.2)	8(7.3)
We always have the materials and equipment necessary to carry out interventions appropriate to the relief of pain in children. (n=108)	14(12.9)	42(38.9)	42(38.9)	10(9.3)	-
We can always be sure that there will be enough staff in the team for us to carry out planned interventions for pain relief in children. (n=109)	9(8.3)	27(24.8)	53(48.6)	18(16.5)	2(1.8)
We receive constant training at our institution which permits us to implement evidence in the practice of analgesia with our patients. (n=108)	3(2.8)	12(11.1)	61(56.5)	30(27.7)	2(1.9)
Institutional protocols exist which permit the improvement of quality of practice of analgesia in children and neonates. (n=109)	11(10.1)	25(22.9)	45(41.3)	26(23.9)	2(1.8)
Analgesics can cause adverse events and serious side-effects in neonates and must be prescribed only when the presence of pain is certain. (n=108)	15(13.9)	50(46.4)	26(23.9)	5(4.7)	12(11.1)

SA – Strongly agree; A – Agree; D – Disagree; SD – Strongly disagree; NAND – Neither agree nor disagree

In Table 5, the process of outcomes assessment in nurses' daily practice is presented. The nurses report that after an intervention, they never (9.3%), rarely (22.2%) or sometimes (26.0%) carry out an evaluation of the care plan's efficacy. Most interviewees consider that nursing technicians or auxiliaries sometimes, rarely or never evaluate and communicate

the expected outcomes, and that healthcare professionals communicate the results of pain assessments and adopted pain relief measures during shift change. More than half (59.4%) of the nurses express that in their institutions it is difficult to modify treatment schemes when the health care professional detect that these are not efficacious.

**Table 5** - Process of outcomes assessment in nurses' daily practice - São Paulo, 2008

	N	R	AV	F	S
	f (%)	f (%)	f (%)	f (%)	f (%)
An evaluation of the care plan's efficacy is carried out after an intervention. (n=108)	10(9.3)	24(22.2)	28(26.0)	26(24.0)	20(18.5)
Nursing technicians and auxiliaries evaluate the results expected and communicate them to the team. (n=108)	7(6.5)	19(17.6)	38(35.2)	36(33.3)	8(7.4)
In your place of work the health care professionals communicate the pain assessments and relief measures adopted at handover. (n=108)	10(9.3)	26(24.0)	24(22.2)	28(26.0)	20(18.5)
In your workplace, it is easy to modify treatment schemes when you detect that they are not efficacious (n=108)	8(7.4)	28(26.0)	28(26.0)	31(28.5)	13(12.1)

N – Never; R – Rarely; S – Sometimes; F – Frequently; AL – Always

## DISCUSSION

Pain has been fairly well studied in recent decades, but gaps can still be identified between theory and practice

concerning the care given by different nursing professionals. Many studies have cited the gaps in nursing knowledge concerning pain phenomena, which corroborates the present research findings as, although the nurses state

that they possess knowledge about the issue, they do not consider their learning sufficient. There is a lack of continuing education courses on issues of clinical relevance, which makes it difficult to implement evidence into care practice, which could contribute to patient safety<sup>(6)</sup>.

The evaluation and relief of pain are processes that need competency and teamwork for the promotion of efficacious and personalized care to the patients and their families. Through their privileged position with the patient, the nurses can evaluate the patients' physical and psychological well-being, and especially the response to treatment instituted<sup>(6,10)</sup>. However, among the interviewees, divergence may be observed between the premise and the practice, as, in spite of their considering pain assessment important and their affirming that the nurse is the professional who is most concerned with this, it is not a routine activity in their workplaces, as they divide their roles with nursing technicians and auxiliaries, even in places where there are enough nurses for providing direct patient care.

Based on the work structure characteristics the nurses described, a negative influence on nursing practice outcomes is supposed. A shortage of health care professionals and lack of team training for pain assessment stand out. The quantitative shortage of nursing professionals and the employment of less qualified staff for carrying out activities of medium to high complexity lead to a work overload and increase the physical and mental exhaustion of the workers, which compromises the implementation of changes in the care given and puts patient safety at risk, which in turn compromises the institution legally<sup>(11)</sup>. Many registered nurses still hold two jobs, the result of the low salary and low social value attributed to nursing in Brazil<sup>(2,12-13)</sup>.

In the face of this work structure, many children may suffer pain due to not being appropriately assessed, which disrespects the ethical and legal duties to alleviate the suffering caused by pain, according to the Brazilian Rights of the Hospitalized Child and Adolescent<sup>(14)</sup>.

Scales are instruments which favor the process of pain assessment and have been available for use since the end of the 1980's, being constantly recommended in the literature in general<sup>(7,15)</sup>. However, no validated, safe, objective and simple to use instrument exists for application in all age ranges, which joins a wide range of information and is suitable for children's needs and comprehension. Therefore, it is difficult to choose an instrument<sup>(16)</sup>. Observing neonates' facial expressions was considered one of the main pain assessment methods in this age range, which demonstrates knowledge about the issue. Studies have cited facial mimicry as a sensitive and useful signal, as facial movements become more expressive when neonates are submitted to painful procedures<sup>(12,17)</sup>.

The rarity of the participation of parents in assessing their children's pain is evidence of the difference between

what is believed and what happens. Communication between the family and the nurse remains precarious<sup>(2)</sup>. Pain-scale scores indicated by the parents, when compared to those indicated by the nursing assessments, are closer to the children's self-assessments<sup>(17)</sup>. It follows that, faced with the benefits of involving the family in the process of assessing pain, strategies must be developed which facilitate their involvement in this process.

The fact that doctors do not carry out the pain assessment in the mode of administration termed 'at doctor's discretion', breaks the law that regulates professional nursing practice. Yet again, the discourse differs from practice, and both the nursing and medical teams must re-think the way analgesics are prescribed so as to demonstrate what really happens in practice. The most appropriate way of administering analgesics showed different points of view and indecision, in line with other works<sup>(2,6)</sup>. One should note the importance of not choosing just one method, as each child must be assessed individually and the method proposed which best meets their needs.

In this context of pain relief efforts, patient-controlled analgesia has been considered an important method for administering medication, as it maintains plasmatic levels of the drug which are suited to each patient, respecting their individuality<sup>(18)</sup>. It should be emphasized that the Brazilian literature on the efficacy and safety of this method with children is scarce.

Non-opioid analgesics, principally the non-hormonal anti-inflammatories, are the drugs of choice for treating pain in children, which corroborates this survey's finding which identifies dipyrone as the medication most prescribed for analgesia<sup>(19)</sup>. The authors observe in the literature that the scientific underpinnings for the use of the drug are dissonant from its use in practice. It is worth emphasizing that there is no scientific evidence which substantiates that a child is at greater risk than adults of developing respiratory depression when administered opioids – many studies have encouraged and valued the use of this class of drugs in the treatment of pediatric and neonatal pain<sup>(3,8,20)</sup>.

Many children continue to be subjected to painful procedures without suitable analgesia. One study found that 8.0% of the children had received analgesia for the insertion of a central catheter, 100.0% for a thoracic drain, while none received analgesia for arterial, venous, capillary and lumbar puncture or for tracheal intubation – the authors of the study emphasizing that in adults, these procedures are rarely carried out without analgesia<sup>(21)</sup> – which is similar to the findings of the present study. Unfortunately, this under-treatment of pain is routine in various services and studies confirm this reality in the treatment of children<sup>(6,14-15,20)</sup>.

Although the literature cites that the continuous administration of analgesic and sedative drugs is, theoretical-

ly, the most appropriate way of relieving pain in intensive care units, taking into account that the analgesics treat the pain secondary to the invasive methods or referred to by the child and the sedative reduces the anxiety and stress resulting from a hostile environment<sup>(22)</sup>, a large part of this study disagreed that this association should always be undertaken. The authors noticed that there is a lack of reviews and practical guides, as well as many recommendations which are based on experiences with adults<sup>(22)</sup>. Many nurses do not receive training in their workplace, are not encouraged to attend scientific events, and do not work with protocols which permit the implementation of evidence into analgesic practice, demonstrating flaws in the work structure.

There is little valuation among nurses of recording signs and complaints of pain, apart from the measures adopted for evaluation and control and results of interventions carried out<sup>(15)</sup>. According to the reality as depicted in this study, continuity of treatment is hindered; firstly by the fact that nursing technicians and auxiliaries never, rarely or sometimes evaluate the results being awaited and communicate them to the team, or that they communicate the pain evaluations and the measures taken for pain relief at handover; and secondly by the fact that nurses do not carry out the evaluation of care plans' efficacy frequently.

The authors identified that it is not always easy for nurses to modify treatment schemes when they detect that the existing ones are not efficacious, which shows that the health service hierarchy can compromise the patient-centered care. Nurses need constant recycling and scientific background for group discussions, and also need to pos-

sess concrete information about the efficacy or inefficacy of the established treatment. It is important for nurses to demonstrate excellence and competency in the work they accomplish, without mechanical practice, as knowledge is the base for any team discussion and work that seeks excellent care delivery to children and their families.

## CONCLUSION

The nurses in this study demonstrate their concern with and value pain assessment and pain relief interventions, although they do not carry out such actions routinely, which demonstrates a concept which diverges from practice. In spite of their awareness about the importance of carrying out such actions, they have not transformed practice, which attitude one should expect of a nurse, as an active agent in the identification of ever more qualified ways of meeting the holistic and individual needs of the patient and family. The health care professionals describe situations which demonstrate the lack of structure for incorporating good nursing practice into patient care, eminently due to the lack of qualified team members or to the numerical insufficiency of staff, an aspect cited more than lack of material resources or equipment. Another highlight is that healthcare institutions neither undertake educational programs on this issue nor implement care protocols or processes which make it possible to improve care. This demonstrates not only permanent education teams' lack of preparation to identify relevant issues for care practice that need change with a view to achieving better results, but also the inexistence of institutional philosophies and policies aimed at developing good practice in nursing.

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