Nurses’ perception of pain management in children in a Hospital Oncology Service in Chile

Percepción de las Enfermeras frente al manejo del dolor en niños en un Servicio Oncológico Hospitalario en Chile

Percepção de enfermeiras sobre o manejo da dor em crianças em um Serviço Hospitalar de Oncologia no Chile

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Abstract: Inadequate pain management in children continues to be a problem. Pain is a frequent symptom in hospitalized children, being an excellent challenge for nursing, understanding that childhood pain in cancer is multifactorial, which makes its management difficult. The objective is to know the perception of nursing professionals regarding pain management in pediatric oncology people hospitalized during the second half of 2017. Methodology: This research is part of the constructivist paradigm focusing on grounded theory, descriptive with qualitative design. A study carried out at the Hemato-Oncology Service of the Roberto del Río Hospital proposed. Six nurses participate in a semi-structured interview for subsequent content analysis. Results: They are female subjects, mainly young adults and for the majority this constitutes their first work experience. The qualitative analysis allowed structuring the perception of pain management in four categories with subcategories: Definition of Pain: Concept of Pain, Pain in the service, Relevance of Pain. Pain assessment: Subjectivity in assessment, Application of rating scales, Personal experience, Family role in pain assessment. Care planning: Role of the family in pain management, Individualization of care, Teamwork. Pain management: Pharmacological treatment, Non-pharmacological treatment. Conclusions: It is possible to know the nurses' perception of pain, understanding boys and girls as a multifactorial being, which requires an adequate assessment, integrating pharmacological and non-pharmacological treatment for remission.
Keywords: Pain Management; Nursing; Child; Medical Oncology; Pain


Palabras claves: Manejo del Dolor; Enfermería; Niño; Oncología Médica; Dolor

Introduction

Inadequate pain management in children continues to be a problem worldwide (1–10). Pain is a frequent symptom in hospitalized children, being an excellent challenge for nurses (2–6, 8–14). Childhood cancer pain is multifactorial, making it difficult to manage (4, 15), and maybe caused by the underlying disease or by diagnostic procedures or treatments (1, 7). Thus, in Chile, a study suggests that half of the hospitalized children report pain during their hospitalization, with needle punctures and other medical procedures being the leading cause of pain (14).

Each child is a historical totality, building their own pain experience both physically and emotionally (2). In this way, configures their expression of health, disease, understood as the same biological and social process (16).

Pain management includes all activities carried out for the recovery and reduction of the painful experience. According to the World Health Organization (WHO), the relief of cancer pain is a human rights problem (17), so its management prioritizes nurses' work. The comfort of pain and suffering is considered the pillar of the patient's rights and, therefore, an essential responsibility of nurses' development (2). Nursing is a broad profession worldwide (18), its essence being the care of people at all levels of care; that takes place in working conditions that, in general, imply a lack of resources and high labor demand (19).

The first step in pain management is its assessment, which allows for comprehensive, personalized nursing intervention to reduce and avoid pain (2). For the detection and treatment of pain, it is essential to consider it a fifth vital constant to objectify the process and define the most appropriate management (2). In this way, different evaluation methods can present self-report, observation, and physiological measures (7).

The multifactorial of pain gives by age, neurological development, individual differences in perception and its expression, context, and previous experiences (1, 4, 9); likewise, with Factors that modulate the perception of pain, such as sex, awareness of social position, identity, and expectations of third parties (6, 20). For this reason, the WHO emphasizes that there is no adequate measurement instrument for all ages or types of pain; thus, the need arises to use instruments adapted according to the life cycle, culture, and development, and in this way, to be used systematically (6, 20).

Currently, there is a wide range of tools for assessing pain, and given the nature of pain caused by cancer, the intensity alone is useful to conduct the assessment in children with cancer (15). Conversely, the health professional has at their disposal different scales to evaluate the pain’s characteristics, in terms of location, type, duration, frequency, intensity, radiation, accompanying symptoms and signs, aggravating factors, mitigating factors, and medications that relieve or cause
pain (1–3,8,15), along with the use of multidimensional scales (15). The mother and the child's participation in the assessment, the health team's presence in the process and the support of the nurses improve pain management in hospitalized children (5).

The nurses report having the knowledge to evaluate pain, and trusting the children's self-report of pain (proposing multidimensional approaches that this considers as indicators associated with the painful experience), the parents' report, and the criteria and competence of the nurses to assess pain (11,15).

Childhood cancer treatment takes place over a long period. Daily contact between nurses and the sick person goes beyond technical-scientific knowledge. It also considers accompaniment and emotional preparation for the child and his family to endure the process in a better way (21). The primary treatment of pediatric pain in oncology is opiates, despite the resistance still present in their use (13), in addition to these non-pharmacological measures, which are essential to provide comprehensive pain management in children (4, 9).

In pain management, it is essential to identify this process's facilitators, among which the following stand out: mother and child support; the presence of the health team next to the children's bed; the presence of parents; a good relationship between nurses and children, caregivers and doctors; explanations of the process given by nurses (5).

It is essential to consider that nurses report better pain management than evidenced, and parents are reluctant to register their children's pain (12).

It is also essential to determine the barriers to pain management. It can lead to undertreatment, causing negative physiological and psychological consequences; nurses must overcome these difficulties to assess pain in hospitalized children (1,10,11).

As barriers identify: incorrect assessment of pain and its characteristics, believing that symptoms are masked when treating pain, lack of knowledge about analgesics and their coadjuvants, fear of adverse effects of analgesics, lack of use of cognitive-behavioral techniques, age of the child, and information that it provides, and above all lack of resource time to develop the process (1,2). In the context of the organization: imbalance in the nurse-patient relationship, lack of training on the subject, lack of organizational support, lack of professional autonomy, and a feeling of powerlessness (2,5,6).

Culture positively and negatively affects pain management. However, strong leadership is essential to introduce innovations and arrive at effective pain management. The critical aspects of effective management of pain in children are leadership, resources (time, personnel, and money-drugs), and trust; this implies reducing stress for all, more trustworthy relationships, and greater job satisfaction (12). Innovations that improve pain management identifies as facilitating the delivery of trust by nurses (they increase the confidence of children and parents in their care and decrease anxiety); and as obstacles, the resources available for pain management (2,6,12), such as staff training time for example (12,22).

Better pain management in children implies higher expectations from children and parents, which means nurses' positive pressure for systematic and effective pain management (12). Against this background, nurses recognize that effective pain management and nursing care delivery are necessary to empower themselves within the hospital organizational system (6).

In this context, Jean Watson (1988) points out that nurses must go beyond the procedures, tasks, and techniques used in practice, understanding health-disease and human experience as a process of transpersonal care, which requires constant enrichment, personal and theoretical, giving a more profound place to Nursing (23). Therefore, nurses' role in pain management is justified in
managing humanized and person-centered care, based on the adequate assessment, intervention, follow-up, prevention, and reduction of pain, in which the patients are involved. Values, knowledge, will, and commitments in the action of caring (21), putting the preservation of human dignity before the biomedical model, which is consistent with the philosophy and theory of transpersonal care of the nurse from Watson.

When understanding nursing as a profession defined historically and socially and understanding how the nurses who work in the Hemato-Oncology Unit manage pain, a constructivist approach is necessary, understanding the active disease health process (16).

To support the understanding of this phenomenon, and in the face of the lack of specific evidence on the management of nursing pain in pediatrics at the hospital level in Chile, the following research is proposed, which aims to know the perception of nursing professionals versus pain management in hospitalized pediatric cancer patients.

**Material and Methods**

The research corresponds to a study in the constructivist paradigm, a grounded theory approach, descriptive with the qualitative design, and with content analysis (24) as an analytical methodology, which allowed exploring the set of verbal expressions and the various components that influence it. It was carried out in the Hemato-Oncology Unit of the Hospital de Niños Roberto del Río (HNRR), a national reference founded in 1901 in Santiago de Chile. University nursing professionals who worked in the unit during 2017, with at least one year of professional practice in said service or six months of experience in other departments and whose work was exclusive with children, were considered participants of the research hospitalized cancer patients. They excluded those who were on a prolonged leave or stayed out for a time equal to or greater than a week. Under these criteria, the susceptible population corresponds to twelve nurses on the fourth shift.

The information was obtained through a semi-structured interview, prepared by the researchers, after reviewing the literature. It was previously applied to a nurse from the hospital palliative care unit to assess the questions' relevance. Finally, the interview included sociodemographic antecedents and six individual questions, what do you understand by pain and how is it in hospitalized children of the service? What do you know by pain management? What relationship do you perceive between pain management and humanized care? How do you formulate treatments to manage pain, and which team members carry out this process? What is your perception of the pain management process in the service?

The same researcher applied the interviews to six participants (convenience sampling) until the phenomenon was known to the researchers (saturation). The participants agreed to participate in the study (there were no withdrawals from the interviews) in a service room with privacy, 12 to 31 minutes, during the second semester of 2017. The interviews were recorded and later fully transcribed. To guide the analysis. Identifying the interviewees with the letter "E" and assigning them a number according to the order of completion, taking literal fragments of the highlighted content grouped in the meta-category of "Pain management," consisting of emerging categories subcategories according to the object of the research.

According to rigor Guba and Lincoln (25) rigor criteria, the research validity assured through development, triangulating the researchers' data in groups. It has the approval of the Comité de Ética de Investigación en Seres Humanos de la Facultad de Medicina de la Universidad
de Chile N ° 106-2017, thus complying with the ethical aspects of confidentiality and voluntary participation of the interviewees.

**Results**

The people interviewed were six nursing professionals. Related to the sociodemographic characterization, all the participants were female, their age range fluctuates between 27 and 49 years, all of the Chilean nationality, for three of them, this service is their first work experience, and one has children, as shown in Table 1.

Table 1: Sociodemographic characterization of the interviewed nurses (n = 6). Santiago, Chile, 2017.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Number</th>
<th>Percentage (%)</th>
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<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>6</td>
<td>100%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-30 years</td>
<td>4</td>
<td>66,6%</td>
</tr>
<tr>
<td>31-40 years</td>
<td>1</td>
<td>16,6%</td>
</tr>
<tr>
<td>41-50 years</td>
<td>1</td>
<td>16,6%</td>
</tr>
<tr>
<td>Have children</td>
<td>1</td>
<td>16,6%</td>
</tr>
<tr>
<td>Nationality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chilean</td>
<td>6</td>
<td>100%</td>
</tr>
<tr>
<td>Foreign</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Previous work experiences</td>
<td>3</td>
<td>50%</td>
</tr>
</tbody>
</table>

The literal fragments extracted from the interviews grouped into the meta-category "Pain management" are understood as the therapeutic actions carried out to reduce or remission pain, which comprises four categories: described below. Categories and subcategories emerge from this, as shown in Table 2.
Table 2: Categories and subcategories from the Pain Management meta category (n = 6). Santiago, Chile, 2017.

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategory</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Definition of pain</td>
<td>Pain concept</td>
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<tr>
<td></td>
<td>Pain service</td>
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<td></td>
<td>Relevance of pain</td>
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<tr>
<td>2. Assessment of pain</td>
<td>Subjectivity in the assessment</td>
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<td></td>
<td>Application of assessment scales</td>
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<td></td>
<td>Personal experience</td>
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<td></td>
<td>Family role in pain assessment</td>
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<tr>
<td>3. Pain care planning</td>
<td>Role of the family in pain management</td>
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<tr>
<td></td>
<td>Individualization of care</td>
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<td></td>
<td>Teamwork</td>
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<tr>
<td>4. Pain treatment</td>
<td>Pharmacotherapy</td>
</tr>
<tr>
<td></td>
<td>Non-pharmacological treatment</td>
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</tbody>
</table>

**Category 1. Definition of pain**

It refers to the construction of the definition of pain.

**Pain concept.** It is considered a personal, unique, and subjective experience that should not be underestimated and requires immediate attention. Faced with this, the nurses state that pain affects those who suffer from it and their family nucleus.

"Unique, a personal, non-transferable experience that occurs when one is exposed to a harmful agent, so to speak, and that in reality not only affects us physically. Nevertheless, it can be a more somatic pain that affects us in all our emotional and psychological aspects. For example, in the case of children here, it affects not only children but also their entire family nucleus." (E6)

**Pain in service.** In this area, the stressors that affect children differ from other services. On the other hand, they introduce the concept of "pain of the soul," which goes beyond the physical, accompanied by a "total pain" that affects all areas of life, requiring personalized attention.

"It is like a "total pain" (...) it has many areas that affect "the whole life of the child," that is why I consider it as "total pain" (E5)

**Relevance of pain.** The nurses of the Oncology Service identify pain as a priority and suggest that all health professionals should know how to evaluate to assess it in a mandatory way in their daily clinical practice, to provide immediate and timely care, regardless of its intensity:

"Pain is a priority; it is something that we have to learn to evaluate, that we have to prioritize." (E5)
Nurses' perception of pain management in children

Category 2. Assessment of pain

It constitutes the evaluation of the painful experience of hospitalized children.

Subjectivity in the assessment. Painful experience must understand according to the person refers to, regardless of the perception one has as a professional. "What the child says, what the child expresses is, regardless of whether something has happened to him recently or that he does not have a face that it hurts if the child says it, it is, that is. Here it is very well implemented, scales, and that pain is a subjective experience and that in reality, no one will be able to express it, live it, other than the child." (E6)

Application of assessment scales. The nurses stated that the evaluation is carried out with validated scales, highlighting FLACC, EVA, and ENA, whose choice varies according to age. "We are very strict about the scales, regarding which is the most appropriate scale for each child, how to evaluate it when to evaluate it, pain is another vital sign here." (E6)

Personal experience. It highlights the importance of personal, painful experiences in the management of pain in the person. "Pain is something we can never forget. Because I believe that everybody has pain in life, and it is an experience that we do not give to anyone—all types of pain, both physical and soul. So, I find that the subject that is so touching is super tricky, but it is super beautiful at the same time, because hey, I feel that the best things come out of pain." (E5)

Family role in pain assessment. It emphasizes that family participation is fundamental, given that they fully understand the behavior of children, their intervention being a contribution to its objectification. "They are the ones who know the child. There is no lack of the mother who says", Aunt, it's strange, something is bothering you, do you think it's a pain? "," Let's try it. " (E3)

Category 3. Pain care planning

It refers to the structuring of the activities to carry out in pain management.

Role of the family in pain management. It exposes the family's importance in the pharmacological treatment since the team can suggest, but they finally decide its administration. Even more remarkable is that the family acts as a robust emotional container, visiting time essential, either during hospitalization or during procedures. "The emotional support provided by the family is, but I think it is key to pain management because deep down you can give a child many drugs, but if the family is not supportive, that child will not be there. quiet no more." (E1)

Individualization of care. It alludes to the importance of personalized evaluation, providing guidelines for pharmacological treatment. Different professionals intervene in this process; those who work in the service, the palliative team, and even the social worker role. "Here, not all children are the same, and not all of them can be treated with the same drugs or with the same interventions." (E5)

Teamwork. She refers that pain assessment is continuous, where all health team members train to perform it, highlighting technical nursing staff’s participation due to their more significant contact with the hospitalized person. "Everyone, everyone (with highlighting of the eyes, voice, and hands), the technicians when they check the vital signs, assess the pain. They trained, we assess pain every time we go to see the
child and administer pharmacological treatment. The doctors prescribe all that is analgesia and complementary therapists who also come to do pain relief therapies." (E1)

**Category 4. Pain treatment**
They are the aspects considered to favor recovery and decrease the painful experience.

**Pharmacotherapy.** The interviewees agree on its importance, highlighting the customary practice of using opioids without restriction, despite observing dependence associated with their use. Emphasis placed on the importance of the assessment and the person's pain experiences in therapy administration. Even though drug treatment is a medical indication, the decision of how and when to administer it is the absolute responsibility of the nursing professional.
"They gave an analgesic therapy scheme as per the WHO, in general here, and depending on that if it is well relieved ... it escalates in opiates already when it does not yield much and escalates until there is no pain". (E1)

**Non-pharmacological treatment.** It is essential for the correct relief of pain, that is, through active listening, accompaniment, environmental management, and complementary therapies, where nurses highlight the development of a significant therapeutic relationship for adequate pain management. On the other hand, they allude to self-knowledge as a fundamental pillar in delivering humanized care, highlighting trust and restraint over techniques and procedures.
"When one manages to have an effective therapeutic relationship, and that is only by doing humanized care, they will have full confidence in you and also that you will be able to help them, and that reduces the burden of anxiety on the child." (E1)
"... we also take into account that pharmacological management is not all about how to treat it, that is, one cures with other things as well, heals with touch, with affection, with a caress and that is also super clear." (E6)

**Discussion**

Considering the sociodemographic characterization of the pediatric cancer service nursing professionals, as in the present study, in an investigation in Indonesia (6), the female sex prevails (90-100%), where their ages fluctuate between 25 and 60 years. The years of previous professional experience vary according to the hospital complex; there is no defined pattern. Likewise, a study carried out in Brazil (26) allows us to visualize a characterization like the Chilean one, positioning the female sex as the protagonist in oncology services, whose ages remain between 25 and 50 years. On the contrary, in a study in Israel (11), pediatric nurses reported an average of 9 years in the pediatric service (10 in general). The majority evaluated the pain of children, using their impressions, the child's self-report, or crying of this, depending on each child's personality, culture, and pain threshold.

A study of nurses in Indonesia (6) reported that nurses felt they were not capable of providing effective pain care to hospitalized children in pediatric wards. Besides, the service offers structural and cultural organizational factors that hinder effective pain care in pediatric patients, integrating them into nurses' clinical practice; Likewise, in Asturias-Spain, knowledge of pain management is less than half of the nurses work with children (22).
In the present study, the results show that the nurses in the service converge on the same concept of pain, a definition like that given by the International Association of Pain (27), allowing unifying criteria in its management. In this research, it recognized that the concept of pain constructed from different perspectives, as is maintained in the study of Cuba (4) and Chile (28), understanding it as a real sensation, in which multiple factors influence, thus requiring dynamic management and dependent on the characteristics of the person and their environment.

However, in the oncology service, pain differs from other units, since painful experiences attribute to the underlying pathology and its treatment, procedures, or personal-family coping with the disease.

Like this study, a bibliographic review maintains that pain's relevance is a priority in any care, requiring specific evaluations (2), protocolized, and under-based. Based on this background, the nurses conclude that pain management is a fundamental pillar in professional quality. It should view as a need for the patient and part of a fundamental right (21).

In pediatrics, the measurement and assessment of pain consider one of the most significant difficulties due to the complexity of a complete assessment to choose the appropriate strategies (2,9,10,29). Like the present investigation, a study in Cuba, nurses shared that pain is a subjective sensation, so it cannot be questioned; perceive in a personal and unique way by each person (4) as it is not only a physiological transmission. Nevertheless, also a subjective value according to age, culture, previous experiences, and psychological state (1); its assessment is recognized as one of the main strategies for pain management (8).

The importance of scales remains at the international level since its usefulness is evidenced when applied according to the person's age and cognitive development (8). In this study, nurses perceive that pain assessment scales used appropriately, as was the case in a study carried out in Madrid-Spain (8). However, this perception contrasts with studies in Cuba (17), which determine a deficit in the nursing professional's assessment due to a lack of understanding in applying these scales.

A study in Australia reported that nurses specialized in pediatrics are highly trained in knowledge and attitudes to assess pain (10). A study in Madrid-Spain says that more than half of the nurses are familiar with pain scales (8). However, in Israel (11), 75% report that they have not used them recently. Only half use an assessment method involving the child; most trust their overall impression, and only a third reported parental involvement.

As the present research proposes, in the assessment of pain, the participation of the family in the process should consider since they are the ones who know and understand the behavior of children; understanding that the relationship with parents and family routines are their safe relationship with the world in these early years (9).

Regarding pain planning, like this study, family involvement and teamwork are proposed to improve its management and the individualization of interventions, with a personalized guideline upon discharge (1–3). An Iranian study (5) mentions, in addition to teamwork, the importance of adequate communication, the friendly relationship between nurses and patients, and companions and doctors, as the success factor in pain management, along with the use of non-pharmacological interventions. Even a Spanish study (22) refers that the nurse's direct relationship is the key to significant management success in children.

Regarding pain treatment, two aspects should consider: the anticipation of painful experiences and, on the other, consider multimodal pain treatment (1). In the first case, cognitive and behavioral control is regarded as an option for pain management in the interventions, before
the child's face with pain or anguish; that is, the techniques should apply before entering the exam or starting a method, also identifying activities that have helped in the past (3).

Following this study, pharmacological treatment associate with pain intensity in using the analgesic ladder (1), according to the WHO (20), presents under medical indication. However, the nurses emphasize that they are the main executors and managers in its administration. However, a study in Uruguay (30) detected deficiencies in doctors' knowledge regarding the treatment of pain in children, mainly in the prescription of morphine.

Similarly, this research underlines the importance of administering therapy without fear of the doses or possible addiction that it entails, specifically opiates. It is essential to be clear that there is no evidence that analgesics hides the symptoms of pain or makes its management difficult. Therefore, the cost or availability of these should not hinder their use (7,29,30). A study in Madrid-Spain (8) raises familiarity in using opioids as one of the strategies to improve pain management, which shows a decrease - at the national level - in resistance to their use (13,20). The extent to which its prescription follows the guidelines of protocols based on the WHO recommendations (31).

Finally, in this study, non-pharmacological treatment is presented. In Spain (1), it understands that anxiety contributes to the perception of pain, being essential to a calm environment, parents' presence, and giving information to the child about the process. Likewise, using anticipatory techniques as part of the treatment of childhood pain according to their age, cognitive-behavioral (1), or distraction is a promising technique (7).

Regarding training, first, nurses' constant training in pain management is necessary (8,10), and second, the primary role of Nurses in training and supporting parents in the face of painful processes, together with the present team (5). For humanized care, the integration of non-pharmacological interventions is required as an effective practice to calm the pain and anxiety associated with it, where emotional and physical restraint consider and family closeness.

In this aspect, humanized care considers a fundamental pillar of the nursing discipline, understanding this as the holistic person's consideration, allowing management to focus on their particularities, which is not limited to conventional treatment. As suggested by the interviewees in this study, to develop these skills, self-knowledge is necessary, and that the nurse continually draws on her professional experience, understanding health-disease and human experience as a process of transpersonal care, positioning the Nursing as something more profound than curing a disease (21). A study shares this conception of humanized care in Colombia (32); it is possible to identify the construction of the concept as one that integrally conceives the individual, family, and community. It recognizes the dignity and human condition, reflecting on their health care needs and responses and promoting recovery through assertive and effective communication.

As the main limitation, the study only focused on a single hospital, with an entirely female study population and being young people, with a significant part of the sample in their first work experience that may influence the results.
Conclusions

In conclusion, it is possible to know the nurses' perception of pain management in the Oncology Service of the HNRR. This research understands the children as a multifactorial being, which requires a comprehensive assessment that considers aspects of pain such as intensity, frequency, type, irradiation, and factors of the child, integrating parents and health personnel's vision.

This research contributes to starting the construction of strategies to improve pain management in children by Nurses and Nurses and their specific competence in this area; In this way, we can develop disciplinary evidence that reduces the current gap in pain management in children.

References


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Authors’ participation: a) Conception and design of the work; b) Data acquisition; c) Analysis and interpretation of data; d) Writing of the manuscript; e) Critical review of the manuscript. D.P.R. has contributed in a,b,c,d,e; V.C.M. in a,b,c,d,e; R.N.M. in a,b,c,d,e; C.P.C. in a,b,c,d,e; M.R.T. in a,b,c,d,e; C.S.C. in a,b,c,d,e.

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