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ORIGINAL ARTICLE

Barriers to children´s pain treatment: views of health professionals from a University Hospital

Poliana Cristina Carmona Molinari[1], Gabriela Camila Ramos Alvarenga[1], Lais Fernandes Swenson[2], Esther Angelica Luiz Ferreira[3]

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Abstract

Introduction: The treatment of pain in children is considered essential in their heathcare and must be carried out through excellent assessment and therapeutic planning. In this scenario, there are still difficulties in assistance and gaps in knowledge. **Objective:** To verify what are the barriers to pain treatment from the perspective of health professionals who work in a university hospital. **Method:** Observational, descriptive and cross-sectional survey study, with health professionals from different pediatric sectors of the University Hospital of Jundiaí Faculty of Medicine. **Results:** There were 56 health professionals, an average of 41 years old, 91.1% female, 80.4% with a degree in medicine and an average training time of 15 years. Around 65% use pain assessment scales on a routine basis and 50% stated that there is no protocol for treating children pain in their work sector. About 83% believe that pain is underdiagnosed and/or undertreated and 26.8% had a good pai education during their graduation. Around 34% expressed fear of prescribing opioids. Regarding morphine, 17.9% agreed that it is only used in extreme situations and for patients in palliative care and 26.8% do not feel comfortable prescribing it. To improve pain treatment, 67.5% suggest pain education and training and almost 40% the development of institutional protocols. **Conclusion:** The main barriers to pain treatment were: lack of training/ learning in pain, lack of institutional protocol and lack of knowledge for prescribing and managing opioids.

[1] Faculdade de Medicina de Jundiaí, Departamento de Pediatria - Jundiaí - São Paulo - Brazil.
[2] Faculdade de Medicina de Jundiaí, Residência Médica em Pediatria - Jundiaí - São Paulo - Brazil.
[3] Universidade Federal de São Carlos, Departamento de Medicina - São Carlos - São Paulo - Brazil.

Correspondence to:
Poliana Cristina Carmona Molinari.
Faculdade de Medicina de Jundiaí, Departamento de Pediatria - Jundiaí - SP - Brazil. R. Francisco Teles, 250, Vila Arens, Jundiaí, SP, Brazil.
CEP: 13202-550. E-mail: polianamolinari@yahoo.com.br
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INTRODUÇÃO

Painful experiences are part of every child's life. Pain serves an important purpose, a warning or protective mechanism, and people who are unable to feel pain often suffer extensive tissue damage. It impacts the functional and physical aspects of children's lives and their psychological and emotional well-being.[1] Pain management is a patient's right and is part of the excellence of health care professionals' practice. It must be individualized, based on pharmacological and non-pharmacological approaches, according to the impacts on the various dimensions of pain.[2] Today, we know that children feel pain and it can even be compared to that of adults, but there is still great difficulty in treating it.[3,4] Changes still need to be made, such as the creation of protocols for the use of pharmacological treatment and even protocols for assessing childhood pain.[5,6] There are published studies on the difficulties of treating pain in pediatrics, but many of them do not interact with the various existing biases, whether in the teaching of professionals and their continuing education, the culture involved in the fear of opioids and the lack of recognition of pain by children and their parents, among others.[7,8] In recent years, specific departments of Pain and Palliative Care have been created in national and regional pediatric societies, demonstrating that this is a topic that requires much progress.[9,10] Since pain treatment in children is considered essential in the care of their health and must be carried out through an excellent assessment and adequate therapeutic planning, there are still many obstacles to its implementation.[11] Therefore, this study meets the urgent need to understand the difficulties and obstacles to the effective treatment of childhood pain, particularly in a pediatric referral service. In this way, it is possible to propose actions to improve the education and training of healthcare professionals, promoting a positive impact on pain management in children.

OBJECTIVES

To investigate what are the barriers to pain treatment from the perspective of healthcare professionals working in a university hospital. In addition, to study what are the difficulties in prescribing opioid analgesic medications and to explore the needs of professionals regarding pain treatment in the pediatric population.

METHOD

An observational, descriptive, cross-sectional survey study was conducted using a questionnaire completed via the Google Forms® platform. The study population consisted of healthcare professionals working in the various pediatric sectors of the University Hospital (UH) of the Jundiaí School of Medicine (FMJ), consisting of pediatric emergency, pediatric and neonatal intensive care units, pediatric ward, surgical and obstetric center, and shared accommodation. The sample was constituted by convenience, since all professionals who met the inclusion criteria were invited. The inclusion criteria were: healthcare professionals who work in the various pediatric sectors of the UH of FMJ and who work directly in the treatment of pain in children aged from newborns to 18 years. The following were considered as participants and active in this treatment: professionals who evaluate or prescribe medications for pain and those who administer, separate, or prepare the prescribed medications. The exclusion criteria were professionals who do not work directly in the treatment of pain in the pediatric population of the hospital. Invitations were sent via institutional email and social network (WhatsApp®) to the healthcare professionals mentioned above to participate in the research, through a questionnaire prepared by the researchers, based on their experience and needs to contribute to the understanding of the barriers to pain treatment in pediatrics. The initial part of the questionnaire was intended to characterize the demographics (sex, age, specialty, years and level of training) of the study participants. The remaining questions were asked to characterize the knowledge, main practices and difficulties encountered in the approach to pediatric pain, and the pattern of questions and answer options followed that recommended in the literature.[12] After agreeing to participate in the study, the investigated had access to the Free and Informed Consent Form (FICF), which was on the first page of the form, and confirmation of the volunteer's authorization was required to continue with the questions. The results were tabulated and analyzed using the Statistical Package for Social Science for Windows (SPSS) version 25.0. The primary outcome of the study was a quantitative evaluation; therefore, a descriptive evaluation was performed including measures of central tendency, variation and position, for continuous variables; tables of frequency, for categorical variables; graphs to present the results of some of the questions, with a focus on facilitating their visualization. The results were expressed as estimated proportions and their 95% confidence intervals. This study was approved by the Research Ethics Committee (CAAE 73401523.1.0000.5412) and all participants signed the FICF.

RESULTS

Fifty-six healthcare professionals participated in the study, with the following characteristics: 91.1% were female, mean age of 41 years (95% CI; 37.55 - 44.02); with 25% being up to 30 years old; 80.4% had a degree in medicine and 17.4% in nursing, with the mean time since completion of the same of 15 years (95% CI; 12.11 - 18.72); among those who did medical residency in Pediatrics (53.6%), the mean time between completion of the residency and the present day was 19 years (95% CI; 15.32 - 22.94). Most participants reported working in pediatric emergency (33.9%), followed by outpatient services (17.9%). The professionals who declared having a specialization or residency in Pediatrics were 57.1%

and, added to those who declared being in training (for a residency or specialization in Pediatrics), totaled 85.7% of the participants. The most cited subspecialty was Neonatology (8.9%). Three response categories were considered: (1) agree: encompassed the items I totally agree and agree; (2) neither agree nor disagree; and (3) disagree: encompassed the items I totally disagree and disagree.

Around 65% of the participants stated that they agree with the statement that they always use a pain assessment scale when performing a physical examination or taking vital signs on a child. Regarding the statement that there is a protocol for treating childhood pain in their work sector, 50% of the professionals disagreed (graph 1). A considerable percentage of the participants (82.1%) responded that they believe that pain is underdiagnosed and/or undertreated in pediatric hospitals.

When asked about individual knowledge about pediatric pain management, only 26.8% agreed that they had learned well about pediatric pain management during their undergraduate studies and 37.7% during their residency and/or specialization. When asked about the practice of prescribing opioids, 34% expressed fear of prescribing them and 7.1% of respondents were not prescribers; 32.1% did not know how to obtain a prescription for this medication and 50% did not know all the opioids provided by the hospital for prescription and use. (Graph 2).

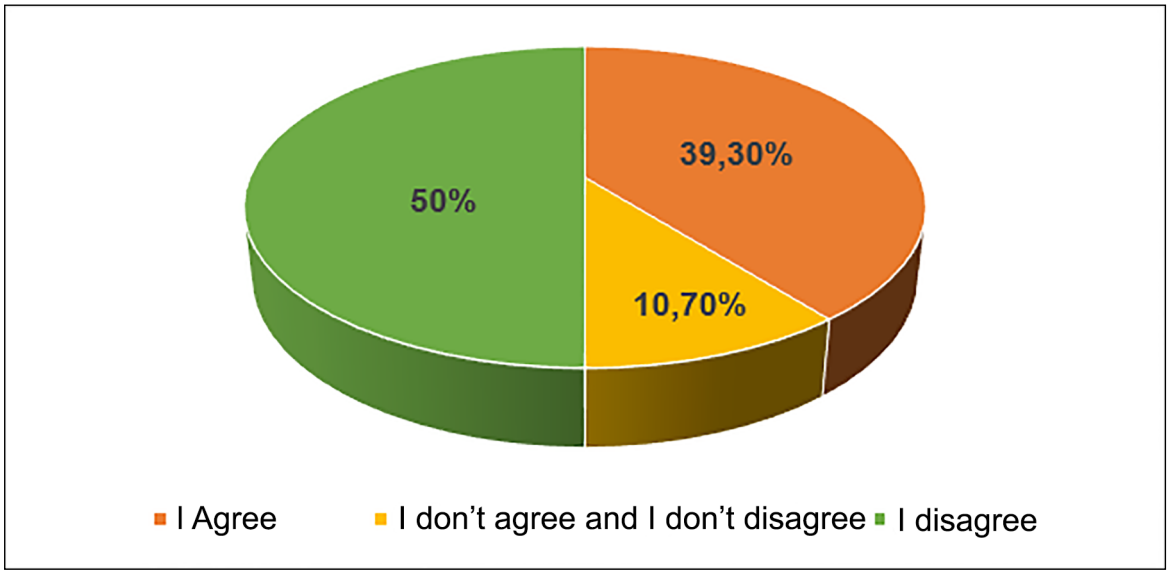
Regarding morphine, 17.9% of the participants agreed that it is used only in extreme situations and for patients in palliative care; 26.8% do not feel comfortable prescribing it. When asked about the feelings they experienced when prescribing or administering opioids for the treatment of pain in children, 46% reported fear and insecurity and 38% fear (graph 3). Still regarding the prescription of opioids, 34% reported not feeling confident in prescribing this type of medication, 23% reported not knowing how to prescribe and 21% reported no difficulties.

When asked whether their hospital has a standard protocol for treating pediatric pain, 43% responded that there is no standard protocol. Regarding the question of what can be done to improve/optimize the use of opioids in general, the most frequent responses are described in Table 1.

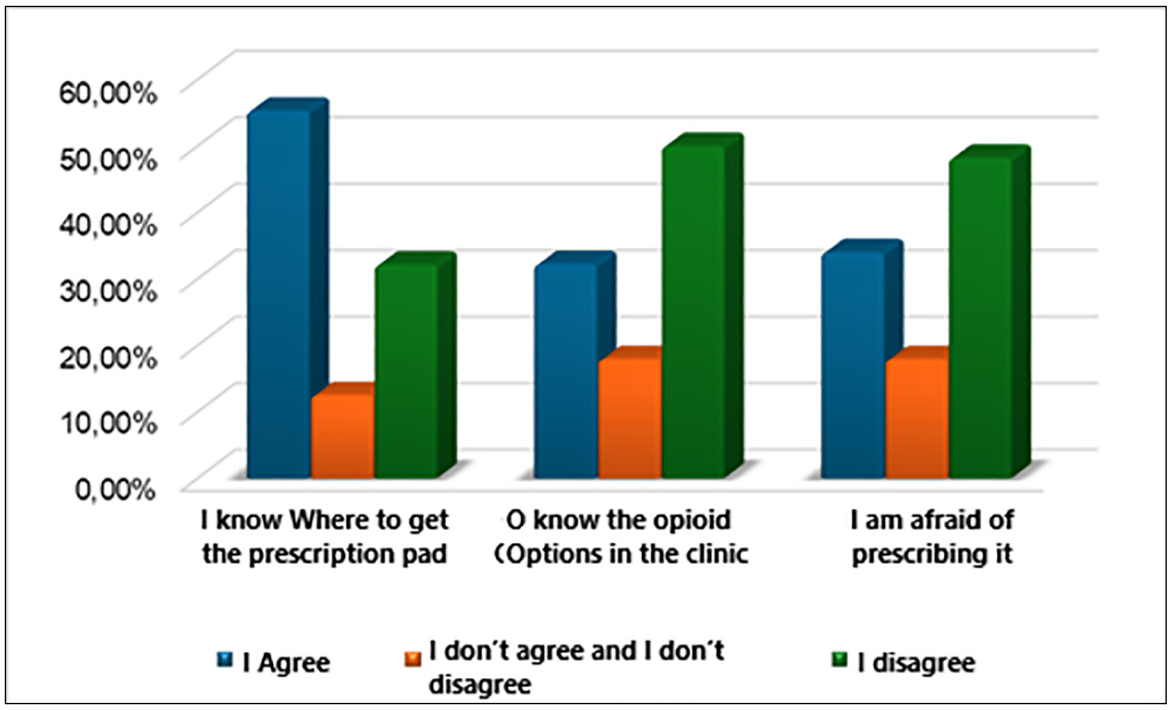
DISCUSSION

This study found some obstacles in the treatment of pediatric pain by healthcare professionals at HU – FMJ. The knowledge and attitudes of the pediatric team can affect their ability to provide adequate treatment for childhood pain. Insufficient management or ineffective treatment can be harmful both psychologically and physiologically; in addition, it can lead to impairment of family functioning and a decrease in the child's quality of life. The need to assess the main barriers and failures in the management of acute pain in pediatric age has motivated studies in several countries, with similar conclusions.[13,14]

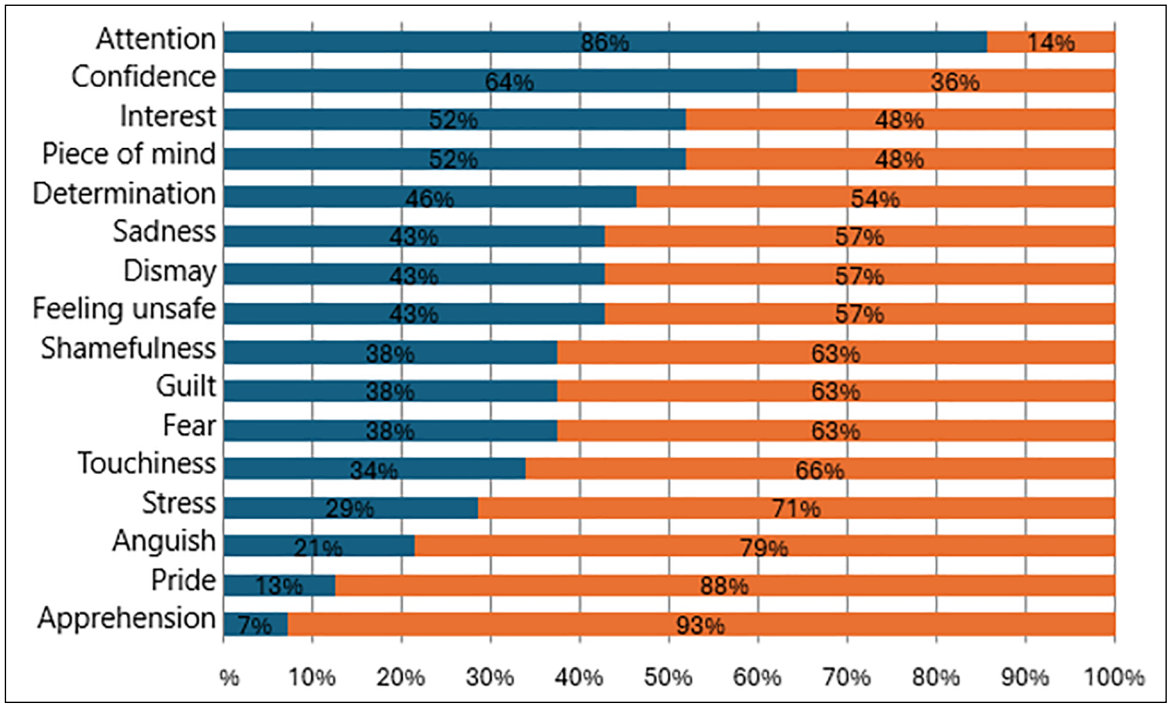
A comprehensive approach to assessing pain in children requires an assessment of both the characteristics of the pain (sensory dimensions) and the child who feels it (emotional, family and situational factors). This information is critical to understanding which factors are affecting pain so that an appropriate treatment program can be developed.[15] In the literature, it is recommended that health care providers select and employ appropriate tools, represented mainly by validated pain scales and according to age groups. In Brazil, one of the



Graph 1. Percentage responses to the statement about the existence of a pain protocol in the sector where you work.



Graph 2. Responses regarding individual practice of prescribing opioids.



Graph 3. Responses regarding feelings present in the prescription/administration of opioids.

main scales validated for Portuguese is the FLACCr, used in nonverbal children or those with cognitive impairment, aged 4 to 19 years, and is an observational scale. However, there are important influences on this assessment, represented by individual developmental factors, previous painful experiences, and parental attitudes towards their children's perceptions and expressions of pain.[15,16,17,18] In our study, 64.3% of the participants use a pain scale whenever they perform a physical examination or vital signs on a child. Freitas et al. found that 84% of the healthcare professionals performed pain assessments in their hospital routine through clinical assessments, pain measurement instruments or reports, and

Table 1. Participants' suggestions for improving/optimizing the use of opioids.

Suggestions	Frequency
Education • Update and better knowledge about pain • Continuing education • Promote teaching since the undergraduate program	67.5%
Standardization • Creation of protocols	39.2%
Training • Team instructions and training	26.7%
Humanization • Better care for the child • Bringing awareness to the professionals	8.9%

Source: Authors' database.

behavioral observations. However, only 29% of professionals reported using standard measurement tools, although 43% reported having pain measurement instruments available in their work sector.[17] Del Castilho et al. found that 78.7% of professionals used such scales, but without standardization.[19] In a Brazilian study in neonatal intensive care units, we found that 60.6% used scales within pain treatment protocols.[20] It is imperative that institutions offer support to the healthcare team through the standardization and distribution of pain scales, education, and training to use pain scales, according to the clinical condition and the child's communication capabilities.[21] Another fundamental point is the existence of protocols for the treatment of pediatric pain. It is previously recognized that care provided based on care protocols, especially those developed with the participation of healthcare professionals, tends to have a positive impact on the quality of pain assessment and treatment. Structured guidelines and protocols produce a systematization for pain care and enhance outcomes, presenting themselves as useful instruments for the multifaceted management of pain, contributing to professional qualification and decision-making.[20] In our study, 50% of participants stated that there was no protocol for treating childhood pain in their work sector. Oliveira et al. showed that 51.9% of physicians reported using one. In other studies, health professionals reported the lack of adequate or targeted protocols for approaching acute pain in pediatrics.[17,18,20] In this scenario, we believe that the lack of adequate tools for pain assessment, the lack of training of healthcare professionals and the absence of institutional protocols are some of the factors that culminated in a significant percentage of participants in our study (82.1%) who believe that pain is underdiagnosed and/or undertreated in pediatric hospitals.

Knowledge and experience are essential for the technical support of pain management practices. The literature frequently mentions the lack of training and education in pediatric pain, which contributes to the persistence of some myths and barriers in the use of medications, insecurity in the management of side effects and adequate doses, lack of knowledge about the range of analgesics and adjuvant medications, and non-pharmacological therapies for pain relief.[19] In our study, 26.8% had good learning for pediatric pain management during their undergraduate studies and 37.7% during their residency and/or specialization. When asked about the practice of prescribing opioids, 34% expressed fear of prescribing them, 32.1% did not know how to obtain a prescription for this medication, and 50% did not know all the opioids provided by the hospital for prescription and use. Similar studies have also found the same scenario: 50.8% of professionals did not receive training in pain management during their training and 52.6% reported that the hospital did not offer them any training in pain management in the last 12 months, according to Freitas et al.; 48.9% did not have training in pain in an Ethiopian study by Lulie et al.; and 50.7% did not have specific training according to del Castilho et al.[18,19,22] Considering the results found, it is recognized that there is a need for training in this area, with a greater focus on training and practical application of theoretical knowledge.

Effective pain management depends on good technical knowledge of pharmacology, physiology and pathology, in addition to the ability to apply it to meet the individual needs of the patient.[13,23] When we explore aspects of opioid prescribing, 26.8% do not feel comfortable prescribing such medications. Similar data were found in the literature, where 51.9% of respondents had no experience with prescribing opioids.[13] Some authors reported that this lack of knowledge and access to opioids constitutes a major barrier to pain treatment in low- and middle-income countries.[24]

Also in this scenario, 46% of participants reported feeling anxious and insecure, 34% did not feel confident prescribing opioids, and 23% reported not knowing how to prescribe these drugs. Data from the literature demonstrate that the lack of safety and fear of adverse effects by healthcare professionals when prescribing opioids, especially in higher doses, may be responsible for inadequate pain treatment.[24] According to the Brazilian Society for Pain Studies (SBED), the main barriers to pain treatment are: inadequate education and training of healthcare professionals, difficulties in assessing pain, lack of knowledge about the pharmacology of opioids, conversion, equianalgesia and rotation, inadequate use of adjuvants, inadequate diagnosis and treatment of adverse events, fear of adverse events from opioids, analgesic tolerance and dependence, lack of priority in pain treatment, establishment of an analgesic plan based on prognosis and not on pain intensity; and, finally, difficulties in reassessing pain and proposed treatments. Investments in the continuing education of these professionals are essential to mitigate the suffering experienced by patients with pain.[18] Finally, in our study, there were important suggestions by participants to improve the use of opioids in general and consequently impact pain treatment. The most frequently cited points were promoting education on pain through updating and improving knowledge, encouraging its initiation in undergraduate courses; training

and education of the team; development and implementation of protocols for the treatment of childhood pain and raising awareness among professionals about the importance of this treatment. The health team is responsible for alleviating patients' pain, playing a fundamental role in their treatment. The objectives of pain management include reducing pain intensity and duration, physiological and emotional stress; increasing the patient's ability to adapt and improve; and developing effective interventions with minimal risk to the patient. The results showed that inadequate team skills such as insufficient experience, knowledge deficits, underestimation of pain assessment and lack of in-service training programs prevent them from providing adequate care.[25]

This study has some limitations. First, it was a descriptive study with the sole purpose of mapping, without establishing relationships between variables. Second, the results were based on self-reports and participants' perceptions. No direct observations of professionals' actions in the clinical context were made. Participants' responses were analyzed as a whole, without discrimination of professional category. These points could be addressed in future studies.

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