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Website: www.jehp.net
DOI: 10.4103/jehp.jehp_1_16

Nurses' experiences from pain management in children in Iranian culture: A phenomenology study

Parvaneh Abazari, Mahboobeh Namnabati

Abstract:

BACKGROUND: Management pain in hospitalized children is challenging for the health-care professionals. Nurses have the most interactions with children who need to assess and manage for their pain. Therefore, the aim was to describe nurses' experiences from pain management among hospitalized children from Iranian culture in this study.

METHODS: A phenomenological study was conducted in which 23 nurses working in an educational hospital in Isfahan–Iran. The nurses participated in interviews based on a purposeful sampling method.

RESULTS: Participants' experiences were categorized into three major themes and twelve subthemes including the nurses' ability of detection of the pain nature, reaction to pain management and belief in pain relief.

CONCLUSIONS: The research showed that the nurses have valuable experiences in pain management in their workplaces. Their descriptions were based on the use of three domains that consist of knowledge, belief, and practice. Therefore, it is vital to focus on the subject of pain in nursing curriculum and guidelines in hospitals. A more extensive research is needed to demonstrate perceived barriers to pain management.

Keywords:

Children, experience, Iran-culture, pain management, qualitative study

Introduction

Children are not strange with pain. In fact, it is a part of their lives. They experience it during vaccination and vein puncture in the early days of their births and even common diseases in their childhood.^[1] Anand and Hickey described some other responses of infants to painful stimuli. Chemical and hormonal responses were observed following noxious stimuli without the use of anesthetic or analgesic medication. Such responses can attribute to a greater morbidity in neonates.^[2,3] Some infants are under procedures during the first 6 months after their births; and studies have indicated that they may experience some physical, behavioral, and social changes in their toddler period.^[4,5]

Pain relief is important to child's normal growth and development. Optimal pain management relies on how accurate the examination of patient and pain affecting factors. Therefore, pharmacological and nonpharmacological interventions need to be considered in treatment program for the hospitalized children.^[6,7] It also should be noted that the nurses play a pivotal role in assessment, intervention, and identification of barriers to the pain management.^[8] Therefore, despite the disciplinary relations, nurses can be responsible for assessing child's overall medical status and acting as a campaigner by highlighting his/her needs to the health care panel.^[9,10] Added to this, no matter what reason the children are under treatment for, they spend more time with them and can better meet and manage their needs and pain.

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How to cite this article: Abazari P, Namnabati M. Nurses' experiences from pain management in children in Iranian culture: A phenomenology study. *J Edu Health Promot* 2017;6:74.

Nursing and Midwifery Care Research Center, Faculty of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran

Address for correspondence:

Dr. Mahboobeh Namnabati,
Nursing and Midwifery Care Research Center,
Faculty of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran.
E-mail: namnabat@nm.mui.ac.ir

Received: 27-05-2016
Accepted: 22-01-2017

Nurses' knowledge, belief, and practice arise from their experience. In previous three decades, many studies have documented that nurses have insufficient knowledge that needs to be improved by developing comprehensive pediatric pain assessment and management guidelines.^[11-14] Van Niekerk and Martin examined the knowledge of Tasmanian registered nurses in relation to pain management issues such as addiction, use of analgesics, and pain assessment. In addition, they queried them about their satisfaction with the information they had received about pain management in both workplace programs and in initial education. Mean score of the knowledge in question (72% correct) of the survey revealed deficits in knowledge especially in the pharmacological and nonpharmacological management of pain but displayed a more up to date knowledge concerning the effect of patient variables on pain perception. Nurses also rated the information they received about pain management during workplace programs as poor, feeling that they required significantly more in-depth information during their initial education.^[9] Simons *et al.*, conducting a phenomenological study, have investigated the views of parents and nurses about the involvement of parents in pain management program during the first 48 h after surgery. Three themes emerged from the analysis of the interview transcripts that include shared participants, differing views, and communication difficulties. The findings also indicated that parents had a passive role in relation to their child's pain care and conveyed feeling of frustration on nurses' perception that there was not adequate involvement of parents and inadequate pain management for the children.^[15] Pediatric nurses have experienced some barriers in pain management programs. Ely used a qualitative and descriptive study to examine factors that influence pediatric nurses pain management practices. Several themes emerged from this analysis. Some themes are based on the nurses' clinical background on pain assessment and management, while others reflect the organizational issues and exchange of staff's experience. Barriers/solution to clinical practice change; organizational barriers to practice change and staff commitment toward pain management were the three prominent identified themes.^[16] We intend to describe nurses' experience from pain management in pediatric units with the Iranian culture in this paper. Having focused on the barriers, we have shown that organizational issue, child's characteristics, and nature of the disease and its treatments are the main barriers to the pain management in Iran.^[8] In spite of studies on pain management in children, and quantitative research and guidelines for pain relief conducted in Iran and some other countries, it has remained an unsolved problem especially in pediatric units. Therefore, researchers emphasize on the necessity of an in depth exploration about nurses' experiences to know how the pain is

assessed and managed in pediatric units. In addition, researchers studied and worked in pediatric units and observed the children in pain. It seems that nurses' act based on their experience. Therefore, the present research was focused to explore nurses' experiences in pain management the Iranian culture.

Methods

The study of the development of human consciousness and self-awareness as a preface to philosophy, phenomenological approach that has also been found an appeal in this research. This approach reflects values that are coherent with nursing and allows important nursing questions to be explored.^[17,18]

Setting and participants

The setting of the study was surgical, medical, and infection pediatric units of an educational hospital in Isfahan-Iran and qualified for inclusion with respect to the predesigned inclusion criteria. Nurses were included in the study through a purposive sampling technique recommended for qualitative studies to increase the probability of describing the full extent of the phenomena.^[19] Aging from 26- to 50-year-old with 2-18 years of pediatric backgrounds, participants were all bachelor in nursing and females except one male nurse. Three of them were head nurses permanently in morning shifts, and the others were on rotational shifts. Fifteen nurses had equally worked in both surgical and medical units, and the remaining eight nurses had taken part in infection ward. They expressed their experiences answering questions such as "what is your experience in pain in children?" "Have you ever been with a child suffering pain?" and "How do you manage the pain in pediatric unit?" Data collection took 3 months (2012) and reviewed through in-depth interviews each lasting 25-50 min time.

Credibility and dependability of the findings were established through prolonged researchers' engagement with the units. Member checking was done with nurses. Informed experts were also asked to review and confirm the data analysis and findings.

Data analysis

The nurses' description about pain management was analyzed by Colaizzi's seven-step method including: (1) Read all the nurses' descriptions about pain management, (2) extract significant statements, (3) formulate the same meaning statements, (4) categorize the classified meanings into clusters of themes, (5) integrate the findings into an exhaustive description of the phenomenon pain management, (6) return the descriptions to some nurses to assess them how it compares with their experiences, and (7) correct

suggested changes in the final description of the essence of the phenomenon.^[17,18]

Ethical considerations

The study was approved by The Ethics Committee of Isfahan University of Medical Sciences. Having informed the participants about the nature and aim of the study, we requested them to sign a separate written consent. The participants were asked to attend as they wished. The interview could be canceled if the interviewee would request.

Results

Three themes and twelve subthemes emerged from the analysis of the interview transcription as mentioned in Table 1.

The nurses' ability of detection of the pain nature

Knowing the pain nature

In responding to the question about nurses' experiences on pain assessment, participants explained that the cause of pain in hospitalized children depend on disease, its treatment and the type of procedure.

"If they suffer from meningitis, most of them would have a headache. Patients with shigellosis have abdominal cramps. Patients with arthritis have pain in their joints" (nurse interview nine in the infection ward).

"On coming back from the operation room, our patients have pain. Of course, some of them claim the pain before surgery like the patients who have abdominal tumor" (nurse interview two in the surgical ward).

Table 1: Themes and subthemes of nurses' experience about pain management in children

Themes	Subthemes
1. The nurses' ability of detection of the pain nature	1. Knowing the pain nature
	2. Predicting the level and the type of pain
	3. Understanding and reliance on the mother's role
2. The nurses' reaction to pain management	4. Expecting to tolerate the pain
	5. Interpersonal interaction
	6. Making decision on pain management
	7. Believing in addiction to drug
3. The nurses' belief on pain relief	8. Fear of side effects of narcotics
	9. Unnecessary feeling toward pain chart
	10. Unnecessary feeling toward administration of the analgesic
	11. Having a negative attitude toward mother presence
	12. Belief on placebo

"Hospitalized patients with hematologic diseases have serious pain. Patients who have some problem in the intestinal system have a stomachache and abdominal pain. Neuralgic cases, sometimes, have a headache, especially after seizure. Nephrologic cases have no more pain. Metabolic cases do not have pain" (nurse interview 23 in the medical ward).

Predicting the level and the type of pain

The data indicated that the nurses could experimentally predict the level and the type of pain in patients with respect to the disease and their background in the ward. Nurses mentioned some effective decreasing or increasing factors of pain, for example:

"Patients with cancer who have arthralgia claim the serious pain in responses to a little movement even if the movement is a slight motion of their bed" (nurse interview five in the medical ward).

"Hematologic patients experienced more arthralgia since they had taken corticosteroids, consequently, they had osteoporosis and then their reaction was faster to pain" (nurse interview 18 in the medical ward).

Nurses working in the pediatric units determine the behavioral and physiological changes in infancy or younger children as the main cause of pain. They experienced that:

"Children who cannot express their feel of pain show it with their irritability; a reaction to their abdominal pain or headache. Of course, they express mostly stomachache with putting their hand on the belly" (nurse interview eight in the surgical ward).

"If they say themselves, we can recognize the pain, but younger children do something like thrash of legs and arms and avoid drinking milk, or in the arthritis cases by screaming when touched at the leg" (nurse interview ten in the surgical ward).

"Most of the patients who have myocarditis and endocarditis show their pain in epigastric area. We had a case with fever who was admitted and diagnosed with the heart disease. The patient was complaining stomachache from the early night shift to 4 a.m. Then, he was D.C (discontinue or dead) after 4 a.m. later he was diagnosed with chest pain" (nurse interview 19 in the infection ward).

Understanding and reliance on the mothers' role

The children are taken care and supervised all the time by their mothers. Therefore, mothers are the first observers to report the pain of their children to the staff. Nurses claimed:

"They (mothers) are the first persons who recognize the pain since they are near their children, so they quickly come across and report that their child is in pain" (nurse interview 15 in the surgical ward).

"The older children who are able to express their uncomforted to their mother and then, the mothers convey their compliance to us, although, when we are alone with them, they can not say anything" (nurse interview 11 in the infection ward).

The nurses' reaction to pain management

The nurses' experiences in administrating pharmacologic and nonpharmacologic interventions in children with pain were the second major theme that includes several following subthemes.

Expecting to tolerate the pain

The nurses expected the child must brave to tolerate the pain until the period of treatment is finished. A nurse mentioned:

"Children receiving chemotherapy normally experience myalgia after midnight. If there is morphine or acetaminophen order we can relief the pain, otherwise, the child must tolerate with pain until disease phases and its treatment are going to be fade" (nurse interview 10).

"Hepatic cases who are not allowed to use pain relieving medicine like acetaminophen, have to stand on pain" (nurse interview 19).

"Most of meningitis cases have severe headache and there is no special treatment to execute except cure of disease and elapse of time" (nurse interview 12).

"We just tell the mothers that their children have the pain which is to be cope down with it, then they feel good" (nurse interview ten).

Interpersonal interaction

To manage the pain, the nurses need to interact with mother, child and physician in charge regarding the pharmacologic and nonpharmacologic interventions, some of the participants explained:

"Herniation cases are interesting to me; I mean positioning and keeping the child for herniation is very important both in per operation and postoperation. If the mother can hug position her child correctly, she/he will have little problem. Mothers usually hug their child loosely, especially when they have IV line, I mean they do not hug the child lightly. If we are hugging them ourselves in a supportive way or push the herniation area, it can be effective especially before operation" (nurse interview three).

"When I want to do intramuscular injection, I said to the child listen to me, lay down on prone and close your fingers, deep breath and then I simultaneously put the alcoholic cotton, of course, it's effective for the older children who have had communication with me several times" (nurse interview twenty).

Making decision on pain management

Using of opioid is based on physician's decision. Participants mentioned that they have no protocol for pain management in the ward and narcotic administration must be prescribed by doctors.

"We don't give any medicine without order. First of all, we inform the Intern and then we administer medicine according to the prescription but sometimes, they said that the child can tolerate with the pain" (nurse interview nine).

"Opioids like morphine or petedin is prescribed as needed, but we don't administer unless the patient is revisited... It is not necessary to chart the intensity of pain every shifts" (nurse interview 13).

The nurses' belief on pain relief

The third theme, nurses' belief, emerged through interviews when nurses described their experience about assessment and using pharmacologic and nonpharmacologic interventions in children with pain. In fact, most of the practices of professional teams crystallize in their beliefs and attitudes, the nurses mentioned about their opinion over the subject as follow:

"My coworker do not easily administer petedin to children, since they believe that if the children take it, they will not cooperate to out of bed and experience atelectasis, thus, taking the analgesic is going to be retarded, consequently, the child is able to out of bed and improve recovery... so, she used placebo (sterile water) for hospitalized children" (nurse interview two).

"Usually petedin is given to 6-7 or so older age, we often phenobarbital is used more. We are afraid of side effects of morphine and addiction to drug" (nurse interview one).

"The mothers are worried about their kid. So, they could transfer their anxiety to the baby. It is better, she was not at room during getting vein puncture" (nurse interview 11).

Discussion

The findings of the study revealed three themes including the ability of detection of the pain nature, the nurses' reaction to pain management, and nurses' beliefs on pain relief. The determination of pain

nature shows the nurses have the relevant knowledge about the types, cause, and nature of pain. To ensure one acceptable assessment, the nurse must be well oriented with the influencing factors on pain and its signs and symptoms. In fact, a knowledgeable person about pain reality is the one who can assess the pain correctly.^[20] Similarly, a study evaluated the effectiveness of pediatric pain management guidelines. It has been reported that the most nurses answered correctly about knowledge and attitudes on pain management,^[10,21] while as in another study showed that around one-third participants had knowledge deficits in pain assessment, pharmacologic and nonpharmacologic management and side effects.^[22]

The management of pain depends mainly on the implementation of nursing process through assessment planning, intervention, and evaluation.^[3] Nurses' practice is highly influenced by the intervention with the mother, the child and the physician. Accordingly, we decided to scrutinize the role of mother in pain management. It is well believed that the parents know their child heartily and are sensitive to his/her behaviors. However, they sometimes left the assessment of pain up to the nurse because they thought the nurses are more experienced members than others. Therefore, we found them need to understand that the information they have about their child is important in providing care. Added to this, parents need to be taught about nonverbal pain behavior in children and encouraged to inform the staff.^[22] The results of another study, on the other hand, indicated that nurses felt that the parents were mostly well informed about their child's surgical procedure and nonpharmacological methods, employable for relieving their child's pain.^[23]

Although Simons *et al.* described parents as having a passive role in relation to their child's pain care and convey the feeling of frustration, physicians are undertaking to manage the pain by medicine since prescription is one of their main duties.^[15] The studies have shown that physicians prefer lessening medicine prescriptions while the nurses do not believe it important because of some forgivable issues especially in PRN order.^[16,24] Visentin *et al.* indicated the necessity of an educational program on pain management tailored to the needs of medical staff to improve their knowledge and attitudes toward pain management. Pain is a neglected topic in the educational programs of both nurses and physicians. It was addressed in only 54 of more than 22000 pages in physicians' textbooks; and in only 248 of 45,683 pages in nurses' textbooks. In contrast, in a study reported that there is the significant increases in pain assessment, use of correct tool, and reassessment when the guidelines use in the pediatric wards.^[25]

Interestingly, nurses' abilities to perform pain relief actions were influenced by their valuable judgment and misconceptions. Nurses believe that the use of narcotics lead to addiction in children as well as other side effects such as respiratory problems, depression, and uncooperative to get out of bed. It is emphasized that use of narcotics are necessity to relief sever pain in cancer patients. Medicine prescription is effective and efficient in children pain relief.^[10] The optimum dosage is one that controls the pain, without causing severe side effects. If pain relief is inadequate, the initial dosage is increased to provide greater analgesic effectiveness. The dose is closely titrated to control the effectiveness since the tolerance can develop rapidly. Large doses may even be needed to manage continued sever pain. Regarding the addiction, studies have shown that one percent of under treatment patients were addicted.^[2,10,20]

There are some limitations in this study. The study is a qualitative study, which cannot generalize to the general population. In addition, all participants were females. Obviously, the experience of women is different from men's experiences that can affect the knowledge, belief, and practice.

Conclusions

This study suggests that nurses' descriptions highlighted their valuable experiences in some areas like knowledge about nature, and extension of influencing factors on pain and its management. The nurses' work experience and being in pediatric units help them to determinate the kind of pain and try to manage that. It suggested that to focus on the subject of pain in nursing curriculum and guidelines in hospitals.

Acknowledgment

This study could not have taken place without the enthusiastic nurses, and we are deeply indebted to them. We are also pledge to forward our best thank to the Research Department of Isfahan University for their financial supports without which we could not possibly be able to perform this survey.

Financial support and sponsorship

The study was supported by Isfahan University of Medical Sciences.

Conflicts of interest

There are no conflicts of interest.

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