Factors Influencing Nurses Attitudes Regarding Pain Management of Hospitalized Children

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Abstract

BACKGROUND: One of the most common complaints in medical facilities is the presence of pain. The quality of life, sexual activity, and public relations can all be adversely affected, as can work performance and day-to-day activities. Patients may experience nausea, vomiting, and exhaustion, as well as feelings of helplessness and a lack of control.

Methodology: A descriptive correlational study by using quantitative approach is conducted throughout the period of (25th September 2020 to 20th June 2022). It conducted at pediatric wards in Babylon hospital province, a purposive non-Probability sample consists of 300 subject was collected through a self-administration report questionnaire from nurses who work in hospitals of the Babylon province. Descriptive statistics, regression analyses, ANOVA, and t-tests were used to analyze the data.

RESULTS: The results indicated that there are significant differences in nurse's attitudes with regard education level (p=0.046), nurses who are bachelor's degree were positive attitudes than the others degree, and the parents and children factors have been influenced nurse's attitudes towards pain management of hospitalized children at p-value (≤ 0.05).

CONCLUSIONS: The present study concluded that overall nurses' have neutral attitudes toward pain management, nurse's attitudes affected by their level of education, and marital status.

Keywords: factors influencing, Attitudes, pain management, Hospitalized Children

1. Introduction

The complexity of pain as a multidimensional, subjective experience, especially in children and adolescents, is well-known and can make it difficult to accurately assess or treat [1]. Infants and children are particularly vulnerable to pain, which they may feel as a result of illness, disability, accidents, or even more minor injuries like scrapes, bumps, and burns, which are more common in other age groups. While in the hospital they may also be subjected to surgical interventions and diagnostic and therapeutic procedures that inflict their own pain [2].

It's difficult to tell the difference between a child's restlessness or crying because of pain and their other emotions like hunger or fear, making pain assessment and management particularly difficult in pediatric patients. Until the last two decades, adults considered pain to be of negligible importance. This has changed dramatically. Many health care professionals still have misconceptions about how to treat children's pain [3]

Immediately following surgery, a high level of pain is to be expected, which can be difficult to describe or localize, but which can be controlled and completely relieved with adequate pain management [4]

Consistent use of pain assessment scales like Face, Legs, Activity and Cry and consolability and other bodily parameters in pediatric intensive care units is necessary to improve pain management, according to a Brazilian study [5].

Pain in infants and children can be detected and measured using physiological data such as blood pressure, heart rate, respiratory rate, and other indicators. Pain and anxiety can be indicated by changes in vital signs, such as an increase in blood pressure, pulse, and respiratory rate. There are many ways to tell if a patient is in pain based on behavioral cues like crying, excessive sleeping, withdrawal, refusal of food, and mental changes [6, 7].

Drugs are used in pharmacological pain management, while non-pharmacological pain management relies on other methods to manage pain without the use of medication. Pain management in children's hospitals typically includes two types of non-pharmacological interventions: physical (such as massage) and cognitive (such as imagery, music, or distraction). because they necessitate nurses' interaction with patients, such as providing hope of relief and building an empathic relationship, non-pharmacological interventions are effective [8].

Continuous evaluation and improvement of care are critical components of effective pain management. Pain screening, assessment, diagnosis, documentation, and treatment (pharmacological or nonpharmacological interventions) are all part of effective pain management. For infants and children, current guidelines recommend using reliable, valid, sensitive and developmentally appropriate tools that include both physiologic and behavioral indicators of pain. When a child is in pain, it is critical for pediatric nurses to determine the cause and type of pain, as well as the factors that reduce or increase the pain [9, 10].

With no formal training in pain management, nurses' knowledge and attitudes toward pediatric pain become more important, particularly if they were not exposed to formal training. Also critical is the theoretical knowledge that strengthens the ability to manage pain, and a lack of this knowledge is certain to lead to incompetent clinical practice. When it comes to provide care for a patient who is experiencing pain, primary nursing education must provide the skills necessary to do so [11].

Moreover, Pain management is a major issue concerned with children at any treating setting. In HIV-infected

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children, poor pain relief has been linked to poor recovery and an increased risk of early death. Lack of adequate pain management in children in the hospital is well-documented, despite the fact that these consequences are well-known [12].

2. Methodology

Objectives of the study

1-To identify factors influencing attitudes of nurses regarding pain management of hospitalized children
2-To determine the relationship between factors influencing and nurse's attitudes regarding pain management of hospitalized children.
The study design: A descriptive correlational study is conducted throughout the period of (21st September 2020 to 20th June 2022).
Sample of the study: A total of 300 nurse who were selected by a purposive non-probability sample from pediatric wards in hospitals of the Babylon province.

The Tools of the Study

The research instrument was developed after a thorough review of the relevant literature in order to achieve the study's goals. The instrument's supervisor and a panel of pediatric health nursing professionals scrutinized it carefully. Construction and composition of the instrument were thoroughly examined.
Part one: Consisted of the participants' sociodemographic information. It contained eight items and inquired about the hospital, the department in which they worked, their age and gender, their level of education, their years of hospital experience, and their years of pediatric ward experience.
Part two: Nurses' perspectives on pediatric pain management are taken into account. This section's 35 items were graded on a three-point Likert scale ranging from 1 (disagree) to 3 (agree) (agree). There were three (3) points for agreeing, two (2) points for neutral, and one (1) point for disagreeing for each item. Pain assessment instruments, Nurse education and experience, placebo administration, and distinctions between medical and surgical pain, and the importance of the family and social support system in pain management are all included in the survey. Researchers [13] developed and edited this section.
Part three: include questionnaire aimed at identifying perceived impediments to children's pain treatment.

There are five parts to it

First section: Factors affecting related to organization: there are ten (10) yes/no questions.
Second section: Factors affecting related to parents: three (3) questions
Third section: Children's factors: a set of five (5) questions about children
Fourth section: There are eight (8) questions in the Nurses Factors.
Fifth section: a set of three (3) questions pertaining to cultural and religious beliefs
Additionally, [7] Pain management practices may be affected by several factors, including those that affect patients, their caregivers and the organization. These factors were (Modified elements to Optimal Pain Management) and adapted by the authors [8].
Questionnaire Validity: The questionnaire was sent to a panel of (16) (100%) experts in various fields of nursing and medicine from various universities to evaluate the questionnaire's contents. The expert panel assessed the instrument's content validity, as well as its relevance and ability to measure the study's variable. Following expert advice, the researcher tweaked the gadget even more. Some experts' perspectives modify particular items in knowledge and practice, while most experts focus on aspects that influence pediatric pain treatment, while others experts focus on knowledge questions more than other areas
Reliability of the Study Tool
The estimates of the reliability were determined through the use of the Alfa- Correlation Coefficient (Cronbach's Alfa which valued as a total of 0.92 and considered acceptable

Data collection

Before conducting the study, all relevant licenses and approvals were obtained, including permissions from hospital directors prior to data collection. The study's objectives were explained to nurses from the pediatric wards of the selected hospitals who met the eligibility criteria and agreed to participate in the study. After that, the researcher distributed the questionnaire to all nurses present at the time who were willing to participate using self-administered questionnaires. The researcher asked the participants to complete the surveys on their own time. The researcher gathered the surveys after one week and double-checked that they were all completed. If any of the questions remained unanswered, the researcher asked the respondent to complete them. After collecting all questions, the researcher removed all of the top sheets from the original questionnaire, erasing the identities of the participants and hospitals.
Data Analysis: To describe the data, SPSS version 25 was used to analyze it. Frequency, percentage, and means were utilized to describe it. At a P value of 0.05, the correlation coefficient (r) was also employed for variable connections.

Ethical consideration

An ethical committee of the Department of Pediatric Nursing at Babylon University / College of Nursing approved the study. After completing the design of the questionnaire that was adopted as a tool for the study, which was intended to provide a brief explanation to the participants about the nature of the research and its purpose to form a clear picture as well as a clear explanation about their right in not completing their participation if they feel disinterest in the study.

Results

Table 1:Significant Differences in Attitudes with regard Nurses Age (*n=300*)						
Age Variables	Source of variance	Sum of Squares	d.f	Mean Square	F	*p≤ 0.05*
Attitudes	Between Groups	.072	3	.024	.062	.980 No-sig.
	Within Groups	114.244	296	.386		
	Total	114.316	299			
Findings demonstrated that there is no-significant differences in nurses attitudes with regard age (*p=0.980*).						

Table 2:Significant Differences in Attitudes with regard Nurses Gender (*n=300*)						
Attitudes	Gender	Mean	S. D	t-value	d.f	*p≤ 0.05*
	Male	2.35	0.587	1.278	298	*.202 No-sig.*
	Female	2.25	0.631			
M: Mean, SD: Standard deviation, t: t-test, d.f: Degree of freedom, Sig: Significance, p: Probability value						
Findings demonstrated that there were no-significant differences in nurses attitudes with regard gender (*p=0.202*).						

Table 3:Significant Differences in Attitudes with regard Nurses Residents (*n=300*)						
Attitudes	Residents	Mean	S. D	t-value	d.f	*p≤ 0.05*
	Urban	2.30	0.608	0.865	298	*.388 No-sig.*
	Rural	2.24	0.642			
M: Mean, SD: Standard deviation, t: t-test, d.f: Degree of freedom, Sig: Significance, p: Probability value						
Findings demonstrated that there were no-significant differences in nurses attitudes with regard residents (*p=0.388*).						

Table 4:Significant Differences in Attitudes with regard Nurses Marital Status (*n=300*)						
Marital Status	Source of variance	Sum of Squares	d.f	Mean Square	F	*p≤ 0.05*
Attitudes	Between Groups	1.342	3	.447	1.172	.021 Sig.
	Within Groups	112.974	296	.382		
	Total	114.316	299			
d.f: Degree of freedom, F: F-statistic, Sig: Significance						
Findings demonstrated that there are significant differences in nurse's attitudes with regard marital status (*p=0.980*), nurses who are single were more positive attitudes than the married and widowed and divorced.						

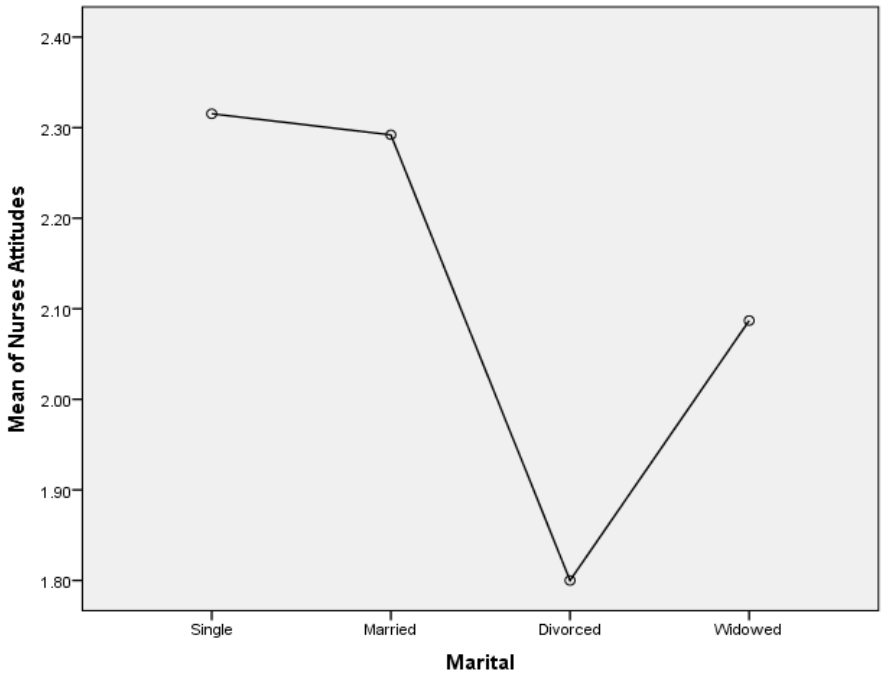

Table 5: Significant Differences in Attitudes with regard Nurses Workplace (*n=300*)						
Workplace	Source of variance	Sum of Squares	d.f	Mean Square	F	*p≤ 0.05*
Attitudes	Between Groups	9.970	6	1.662	4.666	.071 No-sig.
	Within Groups	104.347	293	.356		
	Total	114.316	299			

d.f: Degree of freedom, F: F-statistic, Sig: Significance
Findings demonstrated that there are no-significant differences in nurses attitudes with regard workplace (*p=0.071*).

Table 6:Significant Differences in Attitudes with regard Nurses Years of Experience (*n=300*)

Years of experience	Source of variance	Sum of Squares	d.f	Mean Square	F	*p≤ 0.05*
Attitudes	Between Groups	3.703	2	1.851	4.971	.068 No-sig.
	Within Groups	110.614	297	.372		
	Total	114.316	299			

d.f: Degree of freedom, F: F-statistic, Sig: Significance
Findings demonstrated that there is no-significant differences in nurses attitudes with regard years of experience (*p=0.068*).

Table 7:Significant Differences in Attitudes with regard Nurses Years of Experience in Pediatric Wards (*n=300*)

Experience in Pediatric	Source of variance	Sum of Squares	d.f	Mean Square	F	*p≤ 0.05*
Attitudes	Between Groups	.612	2	.306	.800	.450 No.sig.
	Within Groups	113.704	297	.383		
	Total	114.316	299			

d.f: Degree of freedom, F: F-statistic, Sig: Significance
Findings demonstrated that there is no-significant differences in nurses attitudes with regard years of experience in pediatric wards (*p=0.450*).

Table 8:Significant Differences in Attitudes with regard Nurses Education Level (*n=300*)

Education Level	Source of variance	Sum of Squares	d.f	Mean Square	F	*p≤ 0.05*
Attitudes	Between Groups	.555	3	.185	.481	.046
	Within Groups	113.762	296	.384		
	Total	114.316	299			

d.f: Degree of freedom, F: F-statistic, Sig: Significance
Findings demonstrated that there are significant differences in nurses attitudes with regard education level (*p=0.046*), nurses who are bachelor's degree were positive attitudes than the others degree.

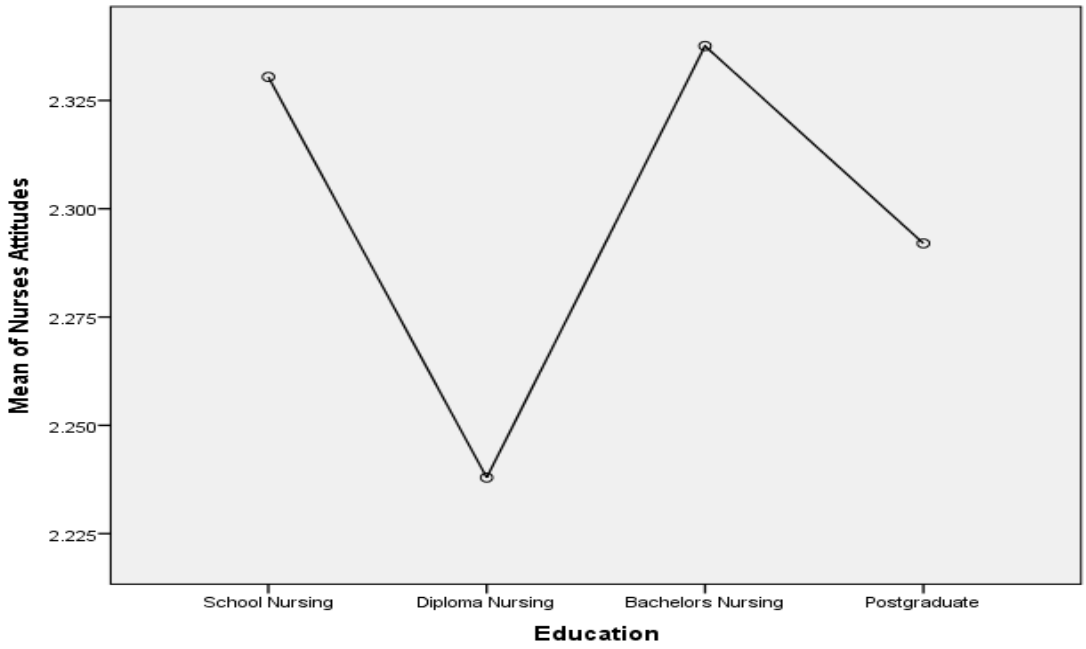

Table 9:Significant Differences in Attitudes with regard Nurses Training (*n=300*)

	Training	Mean	S. D	t-value	d.f	*p≤ 0.05*
Attitudes	Yes	2.42	0.494	1.367	298	*.173nNo-sig.*
	No	2.27	0.631			

M: Mean, SD: Standard deviation, t: t-test, d.f: Degree of freedom, Sig: Significance, p: Probability value
Findings demonstrated that there were no-significant differences in nurses attitudes with regard training sessions (*p=0.173*).

Table 10:Factors Influencing Nurses Attitudes regarding Pain Management of Hospitalized Children

Factors		Attitudes Level				D.f.	Mean Square	*F*	*P-value*
		Negative	Neutral	Positive	Total				
Organization Factors	Yes	1	59	15	75	1	0.629	*1.650*	*0.200 NS*
	No	11	166	48	225				
	Total	12	225	63	300				
Parents Factors	Yes	10	213	63	286	1	02.134	*5.670*	*0.018 S*
	No	2	12	0	14				
	Total	12	225	63	300				
Children Factors	Yes	6	117	25	148	1	2.669	*7.125*	*0.008 S*
	No	6	108	38	152				
	Total	12	225	63	300				
Nurses Factors	Yes	8	201	59	268	1	0.200	*0.522*	*0.471 NS*
	No	4	24	4	32				
	Total	12	225	63	300				
Cultural and believes factors	Yes	0	42	12	54	1	1.015	*2.670*	*0.103 NS*
	No	12	183	51	246				
	Total	12	225	63	300				

d.f= Degree of freedom; F.= Regression test; P-value= Probability value, S= significant, NS= non significant, HS= high significant
Liner regression confirmed that the parents and children factors have been influenced nurses attitudes towards pain management of hospitalized children at *p-value (≤ 0.05)*.

Overall, the findings indicate that the (75 %) of nurses were neutral attitudes towards pain management of hospitalized children, followed by those who are positive attitudes (21 %), and followed by those who are negative attitudes (4 %) (Fig. 1).

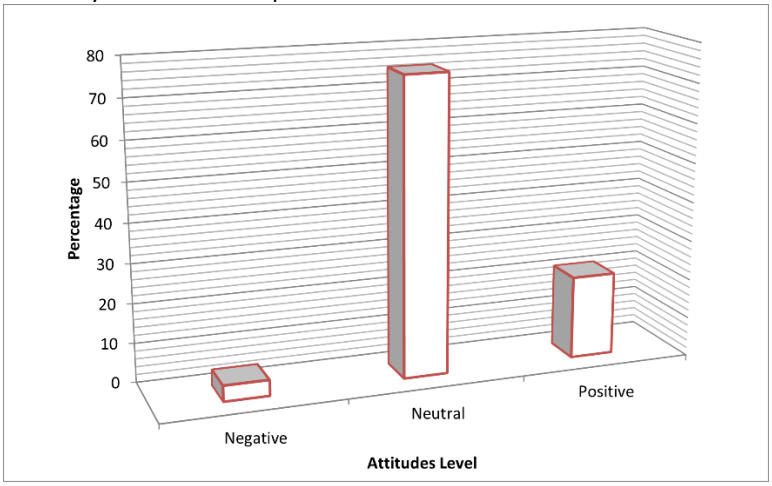

Figure1: Overall Assessment of Attitudes towards Pain Management of Hospitalized Children

Discussion

Table 1: Significant Differences in Attitudes with regard Nurses Age (n=300):
Findings show that there are no significant differences in the attitudes of nurses based on their age (p=0.980).
Correspondingly, with Agyemang et al. [14] in their study about Nursing and Midwifery Students' Knowledge and Attitudes Regarding Children's Pain on 554 nursing and midwifery students in Ghana, who clarified that, there was no statistically significant differences in the mean attitudes scores on the basis of participants' age group (p> .05). These findings could indicate that experiential knowledge, traditions, intuition, and tacit knowledge had no effect on nurses' attitudes toward pain across the age categories.
Table 2: Significant Differences in Attitudes with regard Nurses Genders (n=300)
The researcher found that nurses' attitudes toward gender did not differ significantly (p=0.202).
This finding is reliable with that of Reyala [15], who looked at Nursing Students' Knowledge and Attitude toward Pain

Management in Gaza Strip, Palestine, and found that there was no statistically significant difference in nursing students' knowledge and attitude scores based on gender ($p > 0.05$). suggests that women may give greater attention to pain management, which needs to be investigated further.

Table 3: Significant Differences in Attitudes with regard Nurses Residents (n=300)

There was no significant difference in nurses' attitudes toward residents (p=0.388), according to the findings.

This findings matched with Mohammed Abbas Hussein [16] who conducted a study about Assessment of Primary Schools Teachers' Toward Communicable Diseases Prevention and Control at Primary Schools and stated that, there was insignificantly association between teacher's attitudes toward prevention and control of communicable diseases and residence at p-value >0.05.

Table 4: Significant Differences in Attitudes with regard Nurses Marital Status (n=300)

The results revealed that nurses' attitudes toward their marital status differ significantly (p=0.980). nurses who are single were more positive attitudes than the married and widowed and divorced.

This study's findings are similar to those of a descriptive cross-sectional study conducted by Shoghi et al. [17], which discovered that nurses' attitudes were substantially related to their marital status. The background and culture of the couple's family have a significant impact on post-marital persons' attitudes toward parenting and related difficulties.

Table 5: Significant Differences in Attitudes with regard Nurses Workplace (n=300)

The results showed that there were no significant differences in nurses' attitudes toward their workplace (p=0.071).

The current study's findings are in line with those of Chia et al. [18], who found that the mean total score of nurses' attitudes did not alter significantly depending on the discipline in which they work. This may be due to nurses from the oncology department often had to care for cancer pain patients, which provided them many opportunities to study and practice pain management methods and strategy

Table 6: Significant Differences in Attitudes with regard Nurses Years of Experience (n=300)

The results showed that there are no significant differences in nurses' attitudes regarding years of experience (p=0.068).

This finding resembled that of Ndagijimimana [19], who did a study in Rwanda and found no link between nursing experience, expertise, and attitude toward pediatric pain care (P values greater than 0.05).

Table 7: Significant Differences in Attitudes with regard Nurses Years of Experience in Pediatric Wards (n=300)

The results showed that nurses' attitudes toward years of experience working in pediatric wards were not significantly different (p=0.450).

A study by Kahsay et al. [20] titled Emergency nurses' knowledge, attitude, and perceived barriers related pain management in resource-limited settings: a cross-sectional study found no significant association between nurses' attitudes and their experience in emergency departments., and this findings in the same line with results of present study.

Table 8: Significant Differences in Attitudes with regard Nurses Education Level (n=300)

The findings demonstrated that there is significant differences in nurses attitudes with regard education level (p=0.046), nurses who are bachelor's degree were positive attitudes than the others degree and being.

parallel with Abdulwahab et al. [21] who carried out a study around Factors influencing nurses' knowledge and attitudes toward patients in chronic pain with opioid use disorder: A literature review, and found that, several factors that influence nurses' knowledge and attitudes. These factors like nurses 'education.

In contrast to Nimer et al. [22] in Palestine, who used a quantitative cross-sectional study methodology to gather a representative sample of 380 staff nurses working in various wards, their findings showed that education had no effect on attitudes about pain management. This might be due to inadequate preparation in the nursing curriculum and in continuing education

Table 9: Significant Differences in Attitudes with regard Nurses Training (n=300)

There was no significant difference in nurses' attitudes toward training sessions, according to the findings at p-value= (0.173)

which come in agreement with Al-Attar et al. [23] in their study that aimed to assess Nurse's Knowledge and Attitudes toward Cancer Pain Management at Baghdad Hospitals., and their findings described that, there was no significant between attitude score and demographic characteristics as number of sessions in cancer pain management in Iraq) at (P value >0.05).

While, opposing with Hua et al. [24] who conducted a study entitled Pediatric Nurse Practitioners' Knowledge and Attitudes Regarding Pain Management Study in Central China, on 2,882 pediatric nurse practitioners and reported that, receiving training pain factors influencing on attitudes nurse about pain management. This implies that nurses who have participated in more pain education short courses or training are more knowledgeable than those who have not or have only attended a small number of courses or training. This only goes to show that mastery is achieved through repetition and frequent exposure, which is the key to ensuring that nurses have adequate knowledge, attitudes of pain management.

Table 10: Factors Influencing Nurses Attitudes regarding Pain Management of Hospitalized Children

Liner regression confirmed that the parents and children's factors have been influenced the nurse's attitudes towards pain management of hospitalized children at p-value (≤ 0.05).

This finding is consistent with the findings of Alotaibi et al. [2], who conducted a study on Paediatric pain management: knowledge, attitudes, barriers, and facilitators among nurses – integrative review, and found that parents' reluctance to report pain has an impact on the effectiveness of pediatric pain management.

3. Conclusions

The present study concluded that overall nurses' have neutral attitudes toward pain management, nurse's attitudes affected by their level of education, and marital status, and the parents and children's factors influence on nurse's attitudes concerning pain management of hospitalized children.

4. Recommendations

The content of nursing courses should be examined for its depth, correctness, and relevance to pain assessment and management knowledge that is consistent with current standards of practice.

Future studies are required to analyze the impact of the pain education program on a wider Iraqi nursing community, encompassing diverse sectors of the health care system.

Designing a booklet containing the knowledge, related to the pain management of hospitalized children and acts on it as, a standardized guideline protocol for the provision of the standard of pediatric pain care.

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