ISSN: 2582-7162

Original Article

A study to assess Knowledge and Attitude of Nursing Students Toward Paediatric Pain Assessment and Management

Gaurav Sharma[1], Om Prakash Swami[2], Mohini Massey[3], Anand R Joel[4], Diana Richard[5], Mary Veena[6]

[1]Associate Professor, College of Nursing ASMC, Firozabad, Uttar Pradesh

[2]Asso. Professor, Mahatma Gandjhi Nursing College, Jaipur

[3]Nursing Tutor, College of Nursing, Government Medical College Badaun UP

[4]Professor cum HOD- Child Health Nursing, College of Nursing, LLRM Medical College, Meerut

[5]Associate Professor, College of Nursing, LLRM Medical college, Meerut

[6]Nursing Officer cum Professor, College of Nursing, LLRM Medical College, Meerut

Corresponding Author: Gaurav Sharma, [1]Associate Professor, College of Nursing ASMC, Firozabad, Uttar Pradesh

E-mail: gauravansu27@gmail.com

How to cite this article: Sharma G., Swami O, Massey M, Anand RJ, Richard R, Veena M. A study to assess Knowledge and Attitude of Nursing Students Toward Paediatric Pain Assessment and Management. GFNPSS-IJMR 2026; 7:1:3234-3237

Submitted: 06 January 2026: **Accepted:** 15 January 2026: **Published:** 04 February 2026

Abstract

Introduction: Multiple clinical and educational hurdles prevent pediatric pain from being well diagnosed and managed. Nursing students, as future healthcare workers, must have adequate knowledge and positive attitudes to effectively assess and manage pediatric pain.

Materials and Methods: A descriptive cross-sectional study was conducted among 100 nursing students at Genius Nursing College in Bhilwara, utilizing a structured questionnaire on knowledge and a Likert scale on attitude toward pediatric pain assessment and treatment. In the current study, the study participants were chosen using a non-probability convenience sampling technique. Data were analyzed using both descriptive and inferential statistics.

Results: The average knowledge score was 15.3 ± 3.4 (out of 25), and 42% demonstrated adequate knowledge. The attitude measure indicated a relatively happy attitude (mean score: 64.2 ± 7.8 out of 80). Knowledge and attitude showed a substantial positive association ($r = 0.42$, $p < 0.01$).

Conclusion: Nursing students demonstrated intermediate understanding and an overall good attitude toward pediatric pain practices. It is advised that instructional initiatives be strengthened in order to promote expertise in pediatric pain management.

Keywords: Pediatric pain, Nursing students, Pain assessment, Pain management, Knowledge, Attitude.

Introduction

Pain in children is a complicated sensory and emotional experience that necessitates careful evaluation and management.[1] Despite advances in pain science, pediatric pain is still undertreated throughout healthcare settings, resulting in short- and long-term physiological and psychosocial repercussions.[2]

Nurses play an important role in pediatric pain management because they are frequently the primary caregivers who assess pain and deliver treatments.[3] However, studies show that nursing students frequently lack the necessary expertise and confidence

in pediatric pain assessment and management.[4] Knowledge gaps and unfavorable attitudes can lead to inefficient treatment practices, resulting in ineffective pain relief for juvenile patients.[5]

Education and training in pain assessment techniques, pharmacological and non-pharmacological therapies, and attitude molding are essential for preparing nursing students to provide effective care.[6,7] Understanding nursing students' existing understanding and attitudes about pediatric pain can help guide curriculum modifications[8].

Although pain is unavoidable in hospitalized children, pediatric doctors continue to struggle with assessing and detecting the intensity of pain, which can lead to higher morbidity and death rates if not managed. Nurses' expertise of both pharmaceutical and non-pharmacological pain management in children is critical for managing and developing a management strategy. This study sought to measure nursing students' knowledge and attitudes concerning pediatric pain treatment.[9]

Pain is a common reason for children's hospital visits, and inadequate pain management can harm their physical, psychological, and social well-being while increasing the financial burden on families and healthcare systems. Using a descriptive cross-sectional approach, this study examined the knowledge and attitudes of 100 undergraduate students in Ghana on pediatric pain in their final year of nursing. Data were gathered using the Pediatric Nurses' Knowledge and Attitudes Survey (PNKAS) and analyzed with SPSS version 25. The average age of participants was 29 years, with females accounting for 78%. The average accurate score was 44.0%, demonstrating a lack of understanding and attitudes toward pediatric pain care. While students demonstrated a greater awareness of pain assessment, pharmacodynamics, and pre-emptive analgesia, gaps were found in opioid use, pain physiology, and non-pharmacological treatments. The findings emphasize the need for curriculum adjustments and specific educational interventions to improve pediatric pain management in nursing education.[10]

Objectives

1. To assess the level of **knowledge** of nursing students regarding pediatric pain assessment & management.
2. To evaluate the **attitude** of nursing students toward pediatric pain assessment and its management.
3. To determine the **relationship** between knowledge and attitude scores.
4. To find associations of knowledge and attitude with selected demographic variables.

Hypotheses

H_1: There is a significant relationship between knowledge and attitude scores of nursing students toward pediatric pain assessment and management.
H_2: There is a significant association between knowledge scores and selected demographic variables.
H_3: There is a significant association between attitude scores and selected demographic variables.

Materials and Methods

Study Design and Setting: A descriptive cross-sectional study was conducted from October to December 2025 at Genius Nursing College, Bhilwara, Rajasthan, India.

Population and Sample: The study population included B.Sc. Nursing students in 2nd, 3rd, and final years. A total sample of 100 students was selected using *convenience sampling*.

Sample size: 100 B.Sc. Nursing students

Sampling techniques: In the present study, **non-probability convenience sampling technique** was adopted to select the study participants.

Inclusion Criteria

- Nursing students present during data collection.
- Students who consented to participate.

Exclusion Criteria

- Students absent during data collection.
- Students who refused to participate.

Data Collection Tools

1. **Demographic Proforma** – age, gender, year of study.
2. **Knowledge Questionnaire** – 25 multiple-choice items on pediatric pain assessment and management. Scores: 0–25.
3. **Attitude Scale** – 16 items with a 5-point Likert scale (strongly agree to strongly disagree). Scores: 16–80.

Data Collection Procedure: The approval was obtained from the College Ethics Committee. Students were briefed, consent was obtained, and surveys were distributed in classroom settings.

https://doi.org/10.46376/ijmr/07.01.2026:3234-3237

Data Analysis: The data was entered and analyzed using Microsoft Excel and SPSS v25. Descriptive statistics (mean, SD, frequency) and inferential statistics (Pearson correlation, chi-squared) were applied. Significance was determined at $p < 0.05$.

Results

The acquired data was coded, classed, tabulated, and analyzed using relevant statistical techniques. The analysis results are shown in the tables and figures below, in accordance with the study's objectives.

Table 1: Demographic Characteristics (n = 100)

Variable	Category	Frequency (%)
Age	18–20	40 (40%)
	21–23	50 (50%)
	> 23	10 (10%)
Gender	Female	72 (72%)
	Male	28 (28%)
Year	2nd	32 (32%)
	3rd	34 (34%)
	Final	34 (34%)

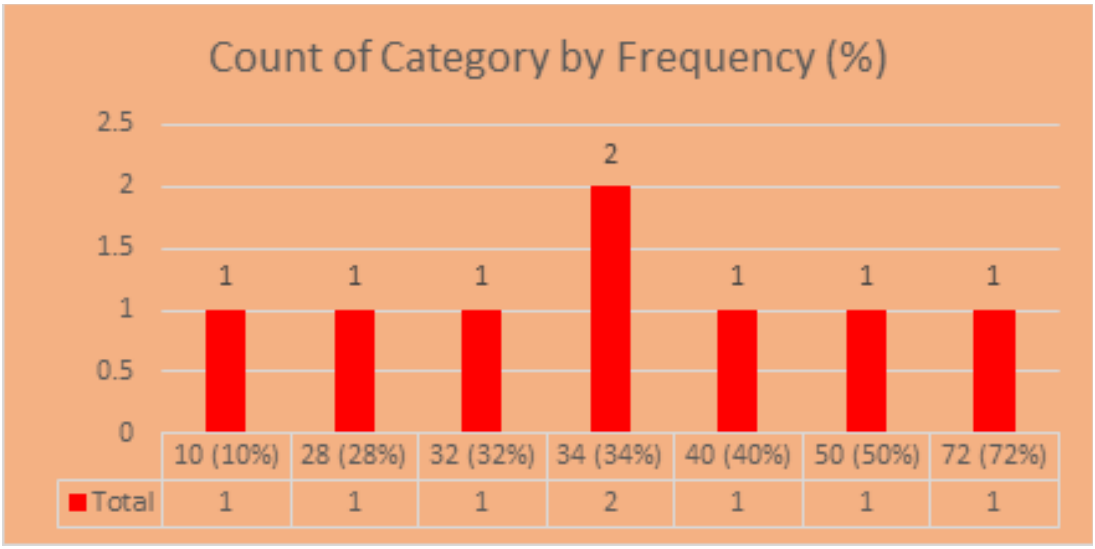

Figure 01: Demographic Characteristics (n = 100)

Table 2: Knowledge Scores

Knowledge Level	Frequency (%)
Poor (0–12)	35 (35%)
Moderate (13–18)	44 (44%)
Adequate (19–25)	21 (21%)
Mean ± SD	**15.3 ± 3.4**

Table 3: Attitude Scores

Attitude Category	Frequency (%)
Negative (16–40)	18 (18%)
Neutral (41–60)	48 (48%)
Positive (61–80)	34 (34%)
Mean ± SD	**64.2 ± 7.8**

https://doi.org/10.46376/ijmr/07.01.2026:3234-3237

Table 4: Relationship Between Knowledge and Attitude

Measure	Value
Pearson r	0.42
p-value	< 0.01*
*Significant at p < 0.05	

Association with Demographics

- **Knowledge vs Year of Study:** $\chi^2 = 8.36, p = 0.02$*
- **Attitude vs Gender:** $\chi^2 = 1.24$, $p = 0.26$ (not significant)

Discussion

The study indicated that nursing students have moderate understanding of pediatric pain (15.3 ± 3.4), similar with earlier studies indicating medium knowledge levels among undergraduate students., Lower knowledge may be the result of a lack of curricular attention on pediatric pain.

The attitude toward pediatric pain was mainly positive (mean score 64.2). A positive attitude is essential for proactive pain evaluation and advocacy for pediatric patients; this is consistent with findings from earlier studies, which found favorable attitudes but deficits in practical abilities.[8]

The considerable positive link between knowledge and attitude suggests that increasing information may lead to more positive attitudes, which can enhance clinical pain management methods. The relationship between year of study and knowledge indicates that academic development favorably improves understanding, most likely due to accumulated clinical exposure.

Conclusion

Nursing students at Genius Nursing College showed modest understanding and a generally good attitude toward pediatric pain assessment and management. Educational enrichment centered on pediatric pain management is critical. Incorporating specific training modules, simulation experiences, and clinical case discussions can improve competency.

Recommendations

1. Incorporate pediatric pain management modules into the nursing curriculum.
2. Provide workshops and simulation training for pediatric pain evaluation and management strategies.
3. Encourage research and evidence-based practice projects on pediatric pain.
4. Conduct regular evaluations of pupils' knowledge and attitudes to track improvement.

Financial support and sponsorship: Nil

Conflicts of interests: There is no conflict of interest

References

1. McGrath PJ, et al. Pain assessment in infants and children. *J Pain*. 2020;21(2):100-116.
2. Anand KJS, et al. Pediatric pain management: global perspectives. *Pain Med*. 2019;20(3):525-533.
3. Twycross A, et al. Nurses' roles in pediatric pain management. *Nurs Child Young People*. 2018;30(4):30-37.
4. Smith HA, et al. Knowledge and attitudes of nursing students toward pediatric pain. *J Pediatr Nurs*. 2021;56:36-43.
5. von Baeyer CL. Children's self-report of pain intensity. *Pain Res Manag*. 2017;2017:291608.
6. American Pain Society. Pain management standards in pediatric nursing. *Pain Manag Nurs*. 2018;19(2):97-104.
7. Rahimi-Motlagh M, et al. Pain knowledge in nursing education: a cross-sectional study. *Pain Res Treat*. 2017;2017:947988.
8. Bell MF, et al. Nurses practice and attitudes toward pediatric pain. *J Clin Nurs*. 2019;28(9-10):1881-1889.
9. Alabdulaziz HM, Alghamdi S, Alabbadi SM, Halawani RJ, Alsulami RA, Hakami SH. Knowledge and Attitudes of Nursing Students Regarding Children's Pain. Cureus. 2024 Sep 13;16(9):e69321.
10. Kusi Amponsah A, Kyei-Dompim J, Kyei EF, Oduro E, Afaya RA, Ahoto CK. Final Year Nursing Students' Knowledge and Attitudes regarding Children's Pain. Pain Res Manag. 2020 Feb 13;2020:7283473.