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FROM ASSESSMENT TO RELIEF: A COMPREHENSIVE STUDY OF PEDIATRIC PAIN MANAGEMENT BY NURSES AT A PUBLIC SECTOR HOSPITAL IN KARACHI

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Author Details	Abstract
Received on 12 July 2025 Accepted on 10 Aug 2025 Published on 12 Aug 2025	Effective pain management in pediatric care is crucial for ensuring patient comfort and promoting recovery, yet inconsistencies in practice persist. This study evaluates the utilization of pain management techniques by pediatric nurses, identifies barriers to effective implementation, and explores the impact of organizational and experiential factors on pain management practices. A quantitative study was conducted with 30 pediatric nurses at a public hospital in Karachi, using a structured questionnaire to assess pharmacological and non-pharmacological pain management approaches. Results indicate that while pharmacological interventions are frequently employed (53.3% always administer medications), non-pharmacological techniques such as distraction (66.7% never used toys/games) and relaxation therapies (36.7% rarely used) remain underutilized. Nurses commonly used validated pain assessment tools (FLACC scale: 53.3% always used), yet parental involvement in pain management plans was inconsistent (63.3% always involved parents, but only 40% frequently explained plans to them). Key barriers included insufficient training (46.7% rarely received pediatric pain management training) and workload constraints. The study highlights a significant gap between evidence-based guidelines and clinical practice, emphasizing the need for enhanced nurse training, standardized protocols, and greater integration of non-pharmacological methods.
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Recommendations include institutional support for regular skill development, interdisciplinary collaboration, and improved nurse-parent communication to optimize pediatric pain management. Future research should expand sample diversity and investigate longitudinal trends in pain management practices.

Keywords: Pediatric pain management, nursing practices, non-pharmacological interventions, barriers to pain control, nurse training, parental involvement

INTRODUCTION

To ensure the comfort of young patients and promote recovery, effective pain management is essential in pediatric care. Nurses play a vital role in assessing and managing pain using both pharmaceutical and non-pharmacological approaches. However, obstacles such as lack of expertise, subjective pain perception, and inadequate funding often hinder effective pain managementd[1]. Nurses must employ appropriate techniques, as pediatric patients face unique challenges in expressing their discomfort due to their developmental stages although pain management guidelines have advanced, inconsistencies persist in their practical implementation[2]. This study aims to assess the application of these strategies in pediatric settings, identify barriers and facilitators, and inform evidence-based pain management practices in healthcare facilities[3]. Addressing this issue is crucial to improve patient outcomes and enhance nursing practice[4].

PROBLEM STATEMENT

Effective pain management techniques are readily available, but nurses often fail to apply them consistently, resulting in suboptimal treatment for pediatric patients[5]. This issue is exacerbated by barriers such as lack of organizational support, excessive workloads, and inadequate training. Inadequate pain management can have negative consequences for children, including prolonged recovery times, increased anxiety, and mistrust of healthcare professionals. A significant practice gap exists in the limited use of non-pharmacological techniques by nurses and difficulties in pain assessment. To address this issue, it is essential to understand the factors influencing nurses' use of pain management techniques. This study aims to identify these gaps and provide evidence to

support interventions that enhance care quality and ensure comprehensive pain management for pediatric patients[6].

RATIONALE

Pain management is a crucial part of pediatric nursing, as unrelieved pain can have lasting effects on a child's physical and emotional well-being. While nurses have access to various evidence-based pain management techniques, applying them effectively in real-world settings is often challenging. Factors like heavy workloads, lack of proper training, limited resources, and inconsistencies in pain assessment can prevent nurses from providing optimal pain relief to children.

This study aims to explore how nurses manage pain in pediatric patients, focusing on both medication-based and non-medication approaches. By identifying the most commonly used strategies, evaluating their effectiveness, and uncovering the challenges nurses face, this research hopes to offer valuable insights that can enhance pain management practices in pediatric care.

Additionally, the study emphasizes the importance of involving parents in their child's pain management. Understanding how nurses engage with caregivers and how this affects pain relief can help improve communication, strengthen trust, and lead to better overall care for young patients.

Ultimately, this research seeks to bridge gaps in knowledge and practice, ensuring that children receive the best possible pain management. By shedding light on the factors that influence nursing care, the study can help guide future training programs, policy improvements, and hospital practices leading to better pain relief, faster recoveries, and a more compassionate approach to pediatric nursing.

RESEARCH OBJECTIVES

- To assess pediatric nurses' current practices in pain assessment and management for children.
- To identify the frequency of pharmacological and non-pharmacological pain management techniques used by nurses.
- To evaluate the role of parental involvement in pediatric pain management.
- To examine barriers affecting effective pain management.

- To recommend evidence-based strategies for improving pediatric pain management protocols.

RESEARCH QUESTIONS

1. How frequently do pediatric nurses use standardized pain assessment tools?
2. What pharmacological and non-pharmacological methods are most commonly employed for pain relief?
3. To what extent are parents involved in pain assessment and management decisions?
4. What challenges hinder optimal pain management?
5. How does interdisciplinary collaboration influence pain management outcomes?

SIGNIFICANCE OF THE STUDY

This research is significant because effective pain management in pediatric patients is essential for improving their overall well-being, recovery, and quality of life. By evaluating the utilization of pain strategies by nurses, the study will highlight areas of strength and identify gaps in current practices[10]. This can lead to enhanced pain management protocols that align with evidence-based guidelines, ensuring that children receive appropriate and effective care. The findings will contribute to improving nurses' knowledge and skills in pediatric pain management through targeted training and education. Understanding the barriers to effective pain management will also help healthcare organizations implement solutions to overcome these challenges, fostering a more supportive environment for both nurses and patients. Additionally, the research will provide valuable insights into patient and caregiver satisfaction with current pain management practices, emphasizing the importance of patient-centered care. By proposing actionable recommendations, the study has the potential to influence policies, improve care outcomes, and enhance the overall standard of pediatric nursing practice[11].

LITERATURE REVIEW

After consulting with the research team and pre-identified content experts, a medical research librarian (AM) developed the search strategy2. A widely recognized definition of quality indicators, previously applied in earlier studies, was used: "specifically defined and quantifiable components pertaining to the care's structures (employees, equipment, and facilities), procedures (prescriptions, investigations, and professional-patient

interactions), or outcomes (mortality, morbidity, or patient satisfaction) 15." Despite the fact that children in hospitals frequently experience pain, evaluating and managing pain poses particular challenges for professionals caring for pediatric patients. Effective management of acute and chronic pain syndromes requires an understanding of pharmacological processes as well as the metabolic differences between infants, children, and adults. Accurate pain assessment is an essential step contributing to pain prevention and/or early detection, leading to effective pain management16. There are three crucial modes of pain assessment in the pediatric population: self-report, observational/behavioral, and physiological. Self-reports are considered the gold standard. However, their applicability is specifically linked to a child's age, development, and communication skills. In some cases, it can lead to subjective responses when the accuracy of pain control should be ruled out. An observational/behavioral approach can be used when pain and pain-related distress cannot be distinguished (e.g. crying or shouting can be pain and/or fear-related). Older children often exhibit behaviors indicating pain. However, their self-reports of pain do not always correlate with their behaviors[13].

RESEARCH METHODOLOGY

This study focused on nurses working in the Pediatrics department as its target population. Following a quantitative research design, the investigation was conducted over five months from August to December 2024. The research involved a sample size of 30 participants selected through convenient sampling technique. Inclusion criteria limited participation to regular pediatric department nurses, while excluding on-call and intern nurses. Prior to data collection, researchers obtained necessary permissions from the Nursing Administration Controller and ensured participants were properly informed about the study to ensure data reliability. Data was collected using a questionnaire tool adapted from a published article, with each session lasting approximately 15-20 minutes. The collected data was subsequently analyzed using SPSS version 25.0 software for statistical evaluation. This methodological approach allowed for systematic examination of the targeted nursing population while maintaining ethical research standards and practical implementation considerations.

ETHICAL CONSIDERATIONS

Ethical issues were carefully addressed to protect the confidentiality of study participants during the quantitative study at a public sector hospital Karachi, Pakistan. Each participant was provided informed consent prior to data collection, after being fully informed about the study's goals, methods, potential risks, and benefits. Participants were assured that they could withdraw from the study at any time without facing consequences. Pseudonyms or participant identification numbers were used instead of personal information to safeguard participants' identities. No personally identifiable information (PII) would be included in any reports or research materials as data protection is crucial. To prevent unauthorized access, password protection and secure storage techniques were used for all collected data. Access to the data was restricted to authorized personnel.

RESULTS

01. DESIGNATION

	Frequency	Percent	Valid Percent	Cumulative Percent
Staff Nurse	30	100.0	100.0	100.0

In this study the participants were 30 and the 100% were staff nurses.

02. AGE

	Frequency	Percent	Valid Percent	Cumulative Percent
20-30	22	73.3	73.3	73.3
31-40	6	20.0	20.0	93.3
41-50	2	6.7	6.7	100.0
Total	30	100.0	100.0	

This is the study of total participants' age.

03. GENDER

	Frequency	Percent	Valid Percent	Cumulative Percent
male	22	73.3	73.3	73.3
female	8	26.7	26.7	100.0
Total	30	100.0	100.0	

The above table shows 73.3% males, 26.7% females.

04. MARITAL STATUS

	Frequency	Percent	Valid Percent	Cumulative Percent
Married	14	46.7	46.7	46.7
Unmarried	16	53.3	53.3	100.0
Total	30	100.0	100.0	

The above table shows 46.7% were-married and 53.3% were unmarried.

05. YEARS OF EXPERIENCE

	Frequency	Percent	Valid Percent	Cumulative Percent
1-5	17	56.7	56.7	56.7
6-10	8	26.7	26.7	83.3
11-15	3	10.0	10.0	93.3
16-20	2	6.7	6.7	100.0
Total	30	100.0	100.0	

The above table shows the years of experience of staff nurses. 56.7% had 1-5 years of experience, 26.7% had 6-10 years of experience, 10% had 11-15 years of experience, and 6.7% had 16-20 years of experience.

06. QUALIFICATION

	Frequency	Percent	Valid Percent	Cumulative Percent
BSN	5	16.7	16.7	16.7
RN	25	83.3	83.3	100.0
Total	30	100.0	100.0	

The above table shows the qualification of staff nurses that 83.3% were RN holders and 16.7% were BSCN holders.

07. HOW OFTEN DO YOU USE THE FLACC SCALE TO ASSESS A CHILD PAIN?

	Frequency	Percent	Valid Percent	Cumulative Percent
never	2	6.7	6.7	6.7

rarely	4	13.3	13.3	20.0
sometimes	7	23.3	23.3	43.3
often	1	3.3	3.3	46.7
always	16	53.3	53.3	100.0
Total	30	100.0	100.0	

The above table shows that 53.3% staff nurses selected always, 23.3% nurses selected sometimes, 13.3% nurses selected rarely, 6.7% nurses selected never, and 3.3% nurses selected often.

08. HOW FREQUENTLY DO YOU USE THE WONG BAKER FACES PAIN SCALE?

	Frequency	Percent	Valid Percent	Cumulative Percent
never	2	6.7	6.7	6.7
rarely	4	13.3	13.3	20.0
sometimes	7	23.3	23.3	43.3
often	7	23.3	23.3	66.7
always	10	33.3	33.3	100.0
Total	30	100.0	100.0	

The above table shows that 33.3% staff nurses selected always, 23.3% selected often, 23.3% selected sometimes, 13.3% selected rarely, and 6.7% selected never.

09. HOW OFTEN DO YOU RELY ON CLINICAL OBSERVATION FOR PAIN ASSESSMENT IN NON-VERBAL CHILDREN?

	Frequency	Percent	Valid Percent	Cumulative Percent
Sometimes	6	20.0	20.0	20.0
often	11	36.7	36.7	56.7
always	13	43.3	43.3	100.0
Total	30	100.0	100.0	

The above table shows that 43.3% staff nurses selected always, 36.7% staff nurses selected often, 20.0% selected sometimes.

10. HOW OFTEN DO YOU INVOLVE PARENTS IN THE PAIN ASSESSMENT PROCESS?

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	4	13.3	13.3	13.3
Rarely	3	10.0	10.0	23.3
sometimes	2	6.7	6.7	30.0
often	2	6.7	6.7	36.7
always	19	63.3	63.3	100.0
Total	30	100.0	100.0	

The above table shows that 63.3% staff nurses selected always, 13.3% staff nurses selected never, 10% selected rarely, 6.7% selected sometimes and 6.7% selected often

11. HOW OFTEN DO YOU CONSIDER PARENTAL CONCERNS IN THE CHILD'S PAIN MANAGEMENT PLAN?

	Frequency	Percent	Valid Percent	Cumulative Percent
rarely	5	16.7	16.7	16.7
sometimes	10	33.3	33.3	50.0
often	2	6.7	6.7	56.7
always	13	43.3	43.3	100.0
Total	30	100.0	100.0	

The above table shows that 43.3% staff nurses selected always, 33.3% selected sometimes, 16.7% selected Never, 6.7% selected often, 0% selected rarely.

12 HOW FREQUENTLY DO PARENTS PROVIDE HELPFUL INPUT IN ASSESSING THEIR CHILD'S PAIN?

	Frequency	Percent	Valid Percent	Cumulative Percent
rarely	4	13.3	13.3	13.3
sometimes	17	56.7	56.7	70.0
often	3	10.0	10.0	80.0

always	6	20.0	20.0	100.0
Total	30	100.0	100.0	

The above table shows that 56.7% staff nurses selected sometimes, 20% selected always, 13.3% selected Never, 10% selected often, 0% selected rarely .

13. How often do you explain the pain management plan to parents?

	Frequency	Percent	Valid Percent	Cumulative Percent
rarely	4	13.3	13.3	13.3
sometimes	12	40.0	40.0	53.3
often	10	33.3	33.3	86.7
always	4	13.3	13.3	100.0
Total	30	100.0	100.0	

The above table shows that 40% staff nurses selected sometimes, 33% selected often, 13.3% selected rarely, and 13.3% selected always, 0% selected never.

14. HOW OFTEN DO YOU USE DISTRACTION TECHNIQUES E.G. TOYS MUSIC?

	Frequency	Percent	Valid Percent	Cumulative Percent
never	4	13.3	13.3	13.3
rarely	7	23.3	23.3	36.7
sometimes	15	50.0	50.0	86.7
often	3	10.0	10.0	96.7
always	1	3.3	3.3	100.0
Total	30	100.0	100.0	

The above table shows that 50% staff nurses selected sometimes, 23% selected rarely, 13.3% selected Never, 10% selected often, 3.3% selected always.

15 HOW FREQUENTLY DO YOU EMPLOY RELAXATION TECHNIQUES?

	Frequency	Percent	Valid Percent	Cumulative Percent
never	4	13.3	13.3	13.3
rarely	6	20.0	20.0	33.3

sometimes	9	30.0	30.0	63.3
often	8	26.7	26.7	90.0
always	3	10.0	10.0	100.0
Total	30	100.0	100.0	

The above table shows that 30% staff nurses selected sometimes, 26.7% selected often, 20% selected rarely, and 13.3% selected never, 10% selected always.

16. HOW OFTEN DO YOU UTILIZE COMFORT POSITIONING DURING PROCEDURES?

	Frequency	Percent	Valid Percent	Cumulative Percent
rarely	6	20.0	20.0	20.0
sometimes	1	3.3	3.3	23.3
often	1	3.3	3.3	26.7
always	22	73.3	73.3	100.0
Total	30	100.0	100.0	

The above table shows that 73.3% staff nurses selected always, 20% selected rarely, 3.3% selected sometimes and 3.3% selected often.

17. HOW OFTEN ARE COGNITIVE-BEHAVIORAL STRATEGIES INTEGRATED INTO PAIN MANAGEMENT?

	Frequency	Percent	Valid Percent	Cumulative Percent
never	1	3.3	3.3	3.3
rarely	3	10.0	10.0	13.3
sometimes	11	36.7	36.7	50.0
often	2	6.7	6.7	56.7
always	13	43.3	43.3	100.0
Total	30	100.0	100.0	

The above table shows that 43.3% staff nurses selected always, 36.7% selected sometimes, 10% selected rarely, and 6.7% selected often, 3.3% selected never.

18. HOW FREQUENTLY DO YOU ADMINISTER DRUGS / MEDICATIONS FOR MILD TO MODERATE PAIN?

	Frequency	Percent	Valid Percent	Cumulative Percent
rarely	1	3.3	3.3	3.3
sometimes	9	30.0	30.0	33.3
often	4	13.3	13.3	46.7
always	16	53.3	53.3	100.0
Total	30	100.0	100.0	

The above table shows that 53.3% nurse staff selected always, 30% selected sometimes, 13.3% selected often and 3.3% selected rarely

19. HOW FREQUENTLY DO YOU ASSESS PAIN MEDICATION EFFECTIVENESS POST-ADMINISTRATION?

	Frequency	Percent	Valid Percent	Cumulative Percent
sometimes	3	10.0	10.0	10.0
often	8	26.7	26.7	36.7
always	19	63.3	63.3	100.0
Total	30	100.0	100.0	

The above table shows that 63.3% staff nurses selected always, 26.7% selected often, 10% selected sometimes, and 0% selected never, 0% selected rarely.

20. HOW OFTEN DO YOU CREATE INDIVIDUALIZED PAIN MANAGEMENT PLANS?

	Frequency	Percent	Valid Percent	Cumulative Percent
never	8	26.7	26.7	26.7
rarely	4	13.3	13.3	40.0
sometimes	12	40.0	40.0	80.0
often	2	6.7	6.7	86.7
always	4	13.3	13.3	100.0

Total	30	100.0	100.0

The above table shows that 40% staff nurses selected sometimes, 26.7% selected never, 13.3% selected rarely, and 13.3% selected always, 6.7% selected often.

21. HOW OFTEN DO YOU CREATE INDIVIDUALIZED PAIN MANAGEMENT PLANS?

	Frequency	Percent	Valid Percent	Cumulative Percent
never	1	3.3	3.3	3.3
rarely	1	3.3	3.3	6.7
sometimes	5	16.7	16.7	23.3
often	13	43.3	43.3	66.7
always	10	33.3	33.3	100.0
Total	30	100.0	100.0	

The above table shows that 43.3% of nurses selected often, 33.3% of nurses selected always, 16.7% nurses selected sometimes, 3.3% nurses selected rarely and 3.3% selected never.

22. HOW FREQUENTLY DO YOU MODIFY THE PAIN MANAGEMENT PLAN BASED ON TREATMENT RESPONSE?

	Frequency	Percent	Valid Percent	Cumulative Percent
never	2	6.7	6.7	6.7
rarely	1	3.3	3.3	10.0
sometimes	6	20.0	20.0	30.0
often	18	60.0	60.0	90.0
always	3	10.0	10.0	100.0
Total	30	100.0	100.0	

The above table shows that 60% of nurses selected often, 20% of nurses selected sometimes, 10.0% nurses selected always, 6.7% nurses selected never and 3.3% selected rarely.

23. HOW OFTEN DO YOU CONSULT A PEDIATRIC PAIN SPECIALIST WHEN NEEDED?

	Frequency	Percent	Valid Percent	Cumulative Percent
never	2	6.7	6.7	6.7
Sometimes	1	3.3	3.3	10.0
often	5	16.7	16.7	26.7
always	22	73.3	73.3	100.0
Total	30	100.0	100.0	

The above table shows that 73.3% of nurses selected always, 16.7% of nurses selected often, 6.7% nurses selected never, 3.3% nurses selected sometimes.

24. HOW FREQUENTLY DO YOU RECEIVE TRAINING ON PEDIATRIC PAIN MANAGEMENT STRATEGIES?

	Frequency	Percent	Valid Percent	Cumulative Percent
never	1	3.3	3.3	3.3
Rarely	14	46.7	46.7	50.0
sometimes	1	3.3	3.3	53.3
often	3	10.0	10.0	63.3
always	11	36.7	36.7	100.0
Total	30	100.0	100.0	

The above table shows that 46.7% of nurses selected rarely, 36.7% of nurses selected always, 10% nurses selected often, 3.3% nurses selected sometimes and 3.3% nurses selected never.

25. I USE DISTRACTION METHODS E.G. TOYS GAME FOR PAIN DIVERSION.

	Frequency	Percent	Valid Percent	Cumulative Percent
never	20	66.7	66.7	66.7
rarely	2	6.7	6.7	73.3

sometimes	6	20.0	20.0	93.3
often	1	3.3	3.3	96.7
always	1	3.3	3.3	100.0
Total	30	100.0	100.0	

The above table shows that 66.7% of nurses selected never, 20.0% of nurses selected sometimes, 6.7% nurses selected rarely, 3.3% nurses selected always and 3.3% nurses selected often.

26. I USE MUSIC OR SOUND THERAPY TO REDUCE THE CHILD PAIN PERCEPTION

	Frequency	Percent	Valid Percent	Cumulative Percent
never	18	60.0	60.0	60.0
rarely	1	3.3	3.3	63.3
sometimes	4	13.3	13.3	76.7
often	3	10.0	10.0	86.7
always	4	13.3	13.3	100.0
Total	30	100.0	100.0	

The above table shows that 60.0% of nurses selected never, 13.3% of nurses selected sometimes, 13.3% nurses selected always, 10.0% nurses selected often and 3.3% nurses selected rarely.

27. I USE VISUAL DISTRACTIONS DURING PAINFUL PROCEDURES.

	Frequency	Percent	Valid Percent	Cumulative Percent
never	16	53.3	53.3	53.3
sometimes	6	20.0	20.0	73.3
often	1	3.3	3.3	76.7
always	7	23.3	23.3	100.0
Total	30	100.0	100.0	

The above table shows that 53.3% of nurses selected never, 23.3% of nurses selected always, 20.3% nurses selected sometimes, 3.3% nurses selected often.

28. I GUIDE CHILDREN THROUGH DEEP BREATHING EXERCISES FOR PAIN MANAGEMENT.

	Frequency	Percent	Valid Percent	Cumulative Percent
never	8	26.7	26.7	26.7
rarely	7	23.3	23.3	50.0
sometimes	6	20.0	20.0	70.0
often	1	3.3	3.3	73.3
always	8	26.7	26.7	100.0
Total	30	100.0	100.0	

The above table shows that 26.7% of nurses selected never, 26.7% of nurses selected always, 23.3% nurses selected rarely, 20.0% nurses selected sometimes and 3.3% nurses selected often.

29. I USE GUIDED IMAGERY TO HELP REDUCE PAIN PERCEPTION.

	Frequency	Percent	Valid Percent	Cumulative Percent
never	3	10.0	10.0	10.0
rarely	11	36.7	36.7	46.7
sometimes	13	43.3	43.3	90.0
often	2	6.7	6.7	96.7
always	1	3.3	3.3	100.0
Total	30	100.0	100.0	

The above table shows that 43.3% of nurses selected sometimes, 36.7% of nurses selected rarely, 10.0% nurses selected never, 6.7% nurses selected often and 3.3% nurses selected always.

30. I TEACH RELAXATION TECHNIQUES TO REDUCE ANXIETY AND DISCOMFORT.

	Frequency	Percent	Valid Percent	Cumulative Percent
never	3	10.0	10.0	10.0
rarely	11	36.7	36.7	46.7

sometimes	7	23.3	23.3	70.0
often	1	3.3	3.3	73.3
always	8	26.7	26.7	100.0
Total	30	100.0	100.0	

The above table shows that 36.7% of nurses selected rarely, 26.7% of nurses selected always, 23.3% nurses selected sometimes, 10.0% nurses selected never and 3.3% nurses selected often.

31. I USE COMFORT POSITIONING DURING PROCEDURES TO EASE PAIN.

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	1	3.3	3.3	3.3
sometimes	1	3.3	3.3	6.7
Often	2	6.7	6.7	13.3
always	26	86.7	86.7	100.0
Total	30	100.0	100.0	

The above table shows that 86.7% nurses selected always, 6.7% nurses selected often, 3.3% nurses selected sometimes and 3.3% nurses selected never.

32. I USE PHYSICAL TOUCH TO COMFORT AND REDUCE PAIN IN CHILDREN.

	Frequency	Percent	Valid Percent	Cumulative Percent
Rarely	4	13.3	13.3	13.3
sometimes	11	36.7	36.7	50.0
Often	3	10.0	10.0	60.0
always	12	40.0	40.0	100.0
Total	30	100.0	100.0	

The above table shows that 40% nurses have selected always, 36.7% selected sometimes, 13.3% selected rarely and 10% selected often.

33. I ENCOURAGE PARENTS TO HOLD OR CUDDLE THEIR CHILD DURING PAINFUL EXPERIENCES.

	Frequency	Percent	Valid Percent	Cumulative Percent
Rarely	1	3.3	3.3	3.3
sometimes	5	16.7	16.7	20.0
Often	2	6.7	6.7	26.7
always	22	73.3	73.3	100.0
Total	30	100.0	100.0	

This above table shows that 73.3% of nurses selected always, 16.7% nurses selected sometimes, 6.7% nurses selected often and 3.3% nurses selected rarely.

34. I ENCOURAGE PARENTS TO ACTIVELY PARTICIPATE IN NON-MEDICAL PAIN MANAGEMENT.

	Frequency	Percent	Valid Percent	Cumulative Percent
sometimes	13	43.3	43.3	43.3
always	17	56.7	56.7	100.0
Total	30	100.0	100.0	

The above table shows that 56.7% nurses selected always, 43.3% nurses selected sometimes, 0% nurses selected often and 0% nurses selected never.

35. I EDUCATE PARENTS ABOUT NON-PHARMACOLOGICAL STRATEGIES FOR PAIN MANAGEMENT.

	Frequency	Percent	Valid Percent	Cumulative Percent
sometimes	7	23.3	23.3	23.3
Often	12	40.0	40.0	63.3
always	11	36.7	36.7	100.0
Total	30	100.0	100.0	

The above table shows that 40% nurses selected often, 36.7% nurses selected always, 23.3% nurses selected sometimes.

36. PARENTS OR CAREGIVERS ARE EFFECTIVE IN MANAGING THEIR CHILD'S PAIN USING NON-PHARMACOLOGICAL TECHNIQUES.

	Frequency	Percent	Valid Percent	Cumulative Percent
sometimes	25	83.3	83.3	83.3
Often	4	13.3	13.3	96.7
always	1	3.3	3.3	100.0
Total	30	100.0	100.0	

The above table shows that 83.3% nurses selected sometimes, 13.3% nurses selected often, 3.3% nurses selected always and 0% nurses selected never

37. I MODIFY THE CHILD ENVIRONMENT TO REDUCE PAIN RELATED STRESS.

	Frequency	Percent	Valid Percent	Cumulative Percent
sometimes	11	36.7	36.7	36.7
Often	4	13.3	13.3	50.0
always	15	50.0	50.0	100.0
Total	30	100.0	100.0	

The above table shows that 50% nurses selected always, 36.7% nurses selected sometimes, 13.3% nurses selected often and 0% nurses selected never

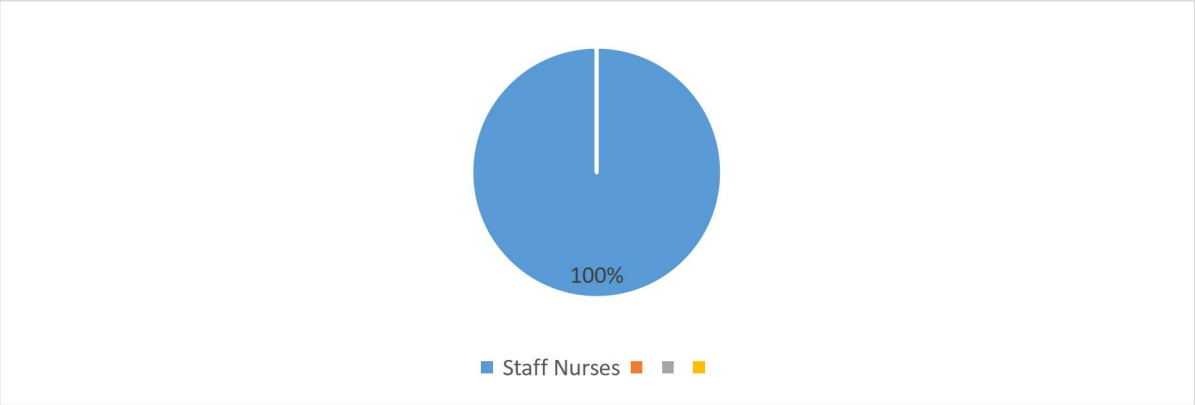
38. I USE HEAT OR COLD THERAPY TO ALLEVIATE PAIN IN CHILDREN.

	Frequency	Percent	Valid Percent	Cumulative Percent
Rarely	1	3.3	3.3	3.3
sometimes	24	80.0	80.0	83.3
Often	4	13.3	13.3	96.7
always	1	3.3	3.3	100.0
Total	30	100.0	100.0	

The above table shows that 80% nurses selected sometimes, 13.3% nurses selected often, 3.3% nurses selected rarely, 3.3% nurses selected always.

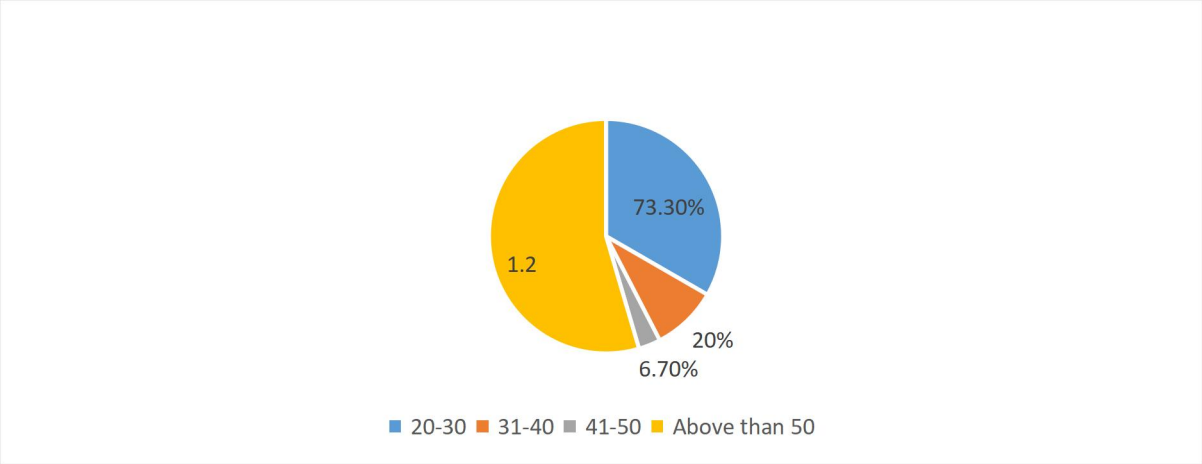
PIE CHART COMPARED RESULT:

1. DESIGNATION



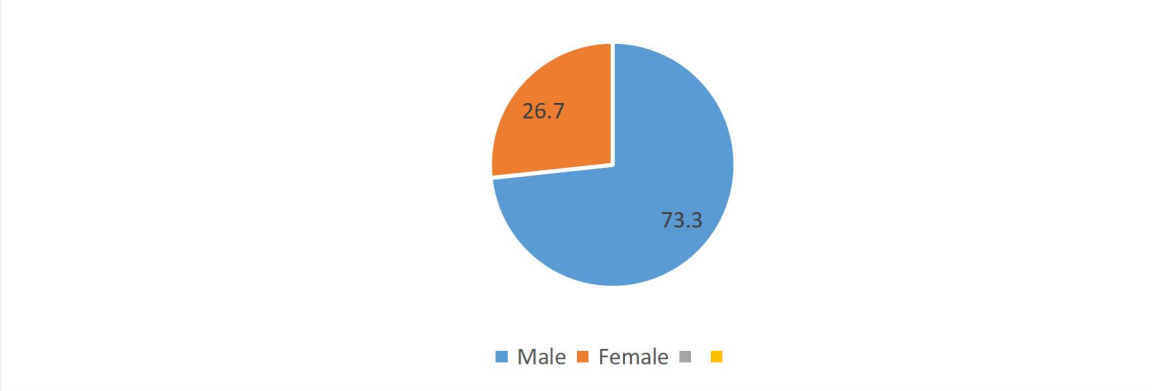
In this study the participants were 30 and the 100% were staff nurses.

2. AGE



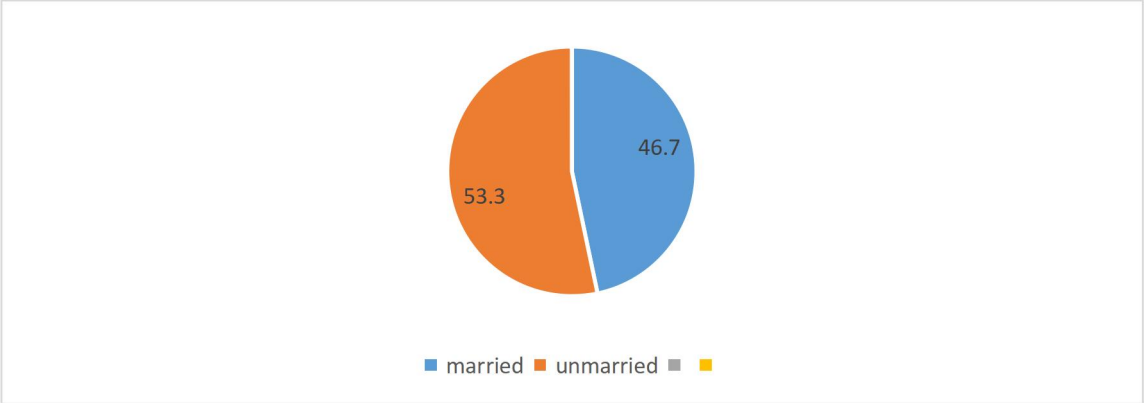
This is the study of total participant's age

3. GENDER



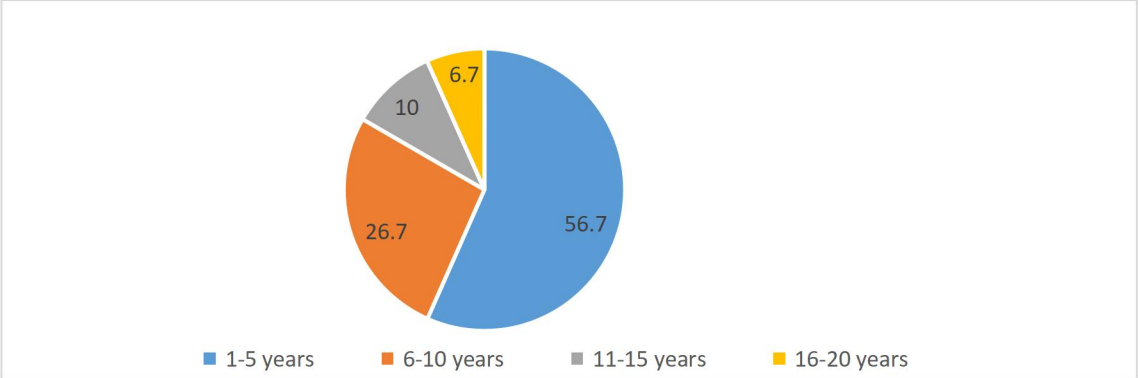
The above pie chart shows 73.3% males and 26.7% females.

4. MARITAL STATUS



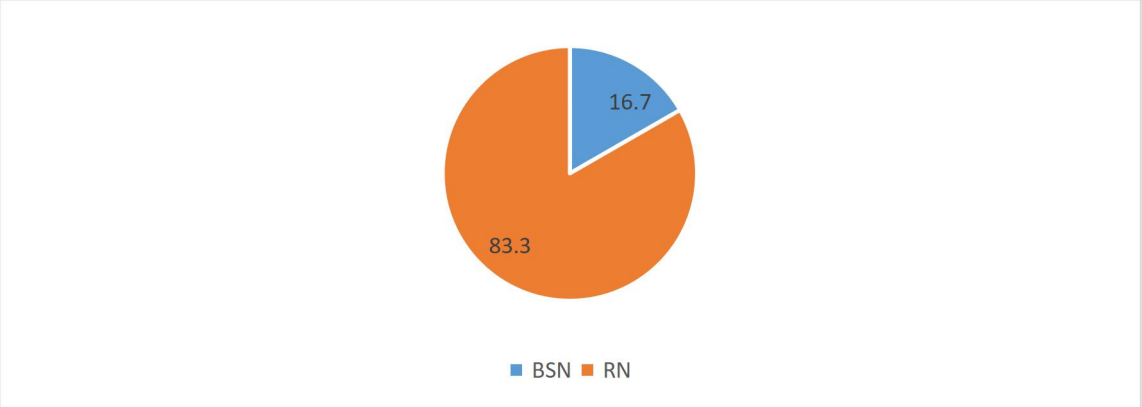
The above pie chart shows 46.7% are married and 53.3 are unmarried.

5. YEARS OF EXPERIENCE



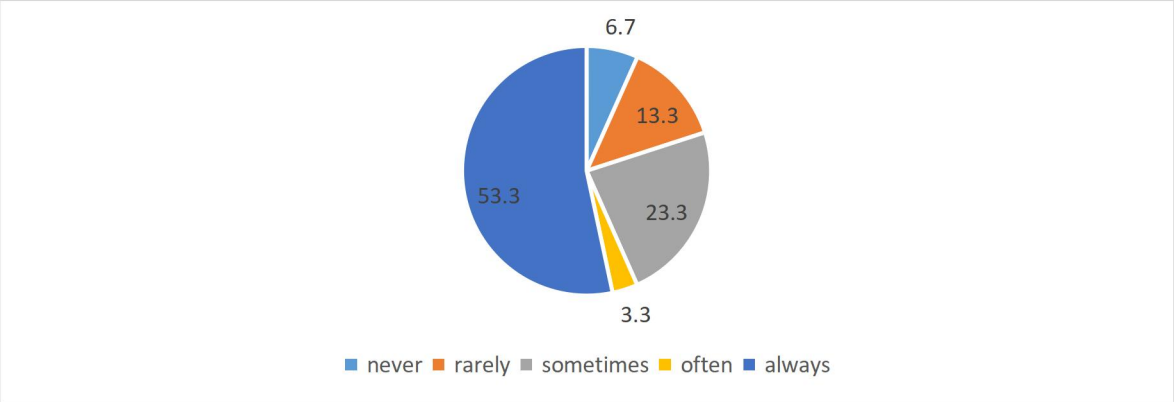
Above pie chart shows the Years of Experience of staff nurses that 56.7% had 1-5 years of experience, 26.7% had 6-10 years of experience, 10% had 11-15 years of experience and 6.7% had 16-20 years of experience.

6. QUALIFICATION



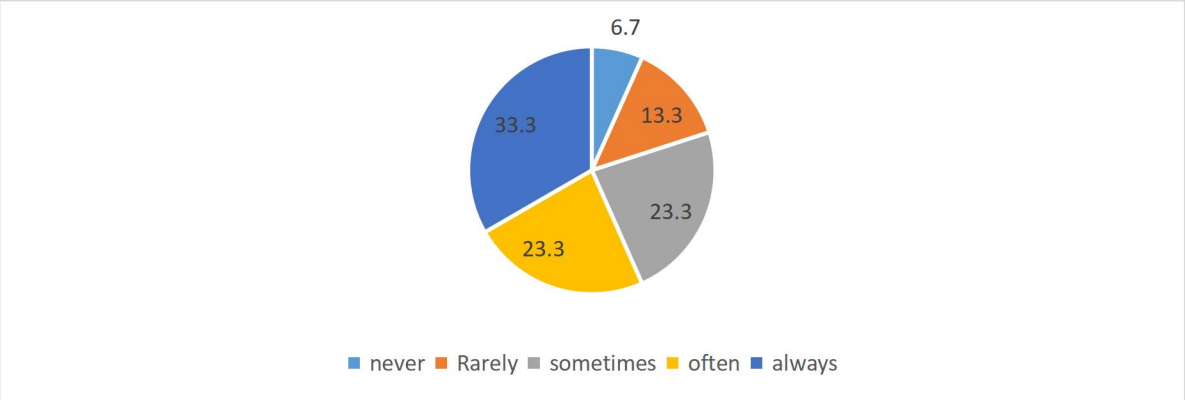
The Above pie chart shows the Qualification of 83.3% were RN Holders and 16.7% were BSCN holders

7. HOW OFTEN DO YOU USE THE FLACC SCALE TO ASSESS A CHILD PAIN?



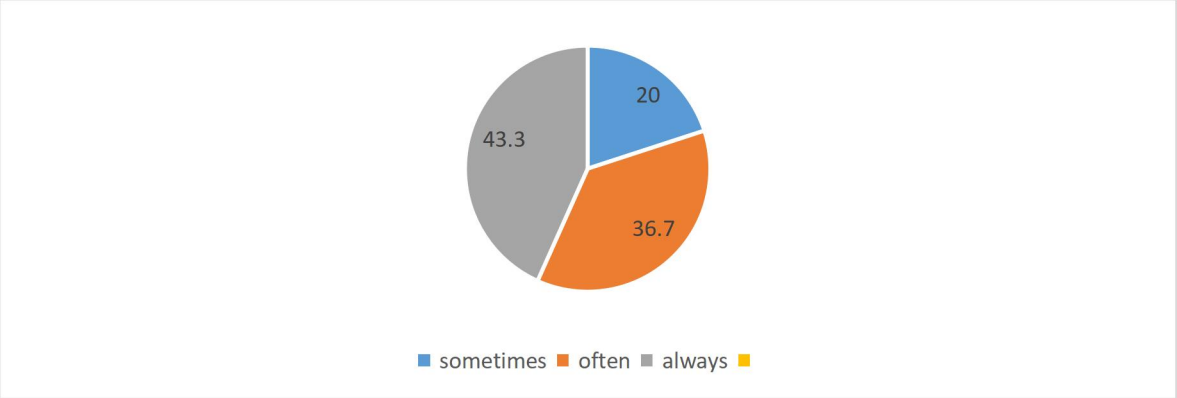
The above pie chart shows that 53.3% staff nurses selected always, 23.3% staff nurses selected sometimes, 13.3% selected rarely, 6.7% selected never and 3.3% selected often.

8. HOW FREQUENTLY DO YOU USE THE WRONG BAKER FACES PAIN SCALE?



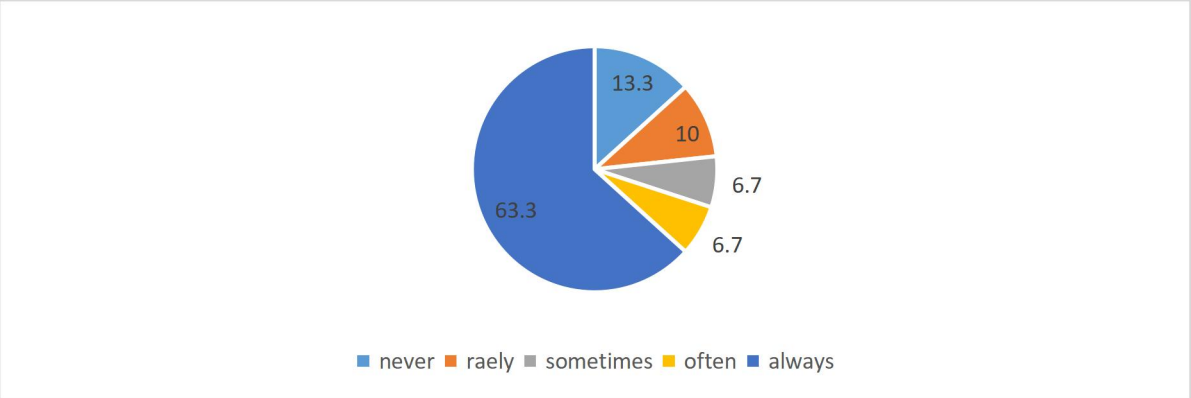
The above pie chart shows that 33.3% staff nurses selected always, 23.3% selected often, 23.3% selected sometimes, 13.3% selected rarely and 6.7% selected never.

9. HOW OFTEN DO YOU RELY ON CLINICAL OBSERVATION FOR PAIN ASSESSMENT IN NON-VERBAL CHILDREN?



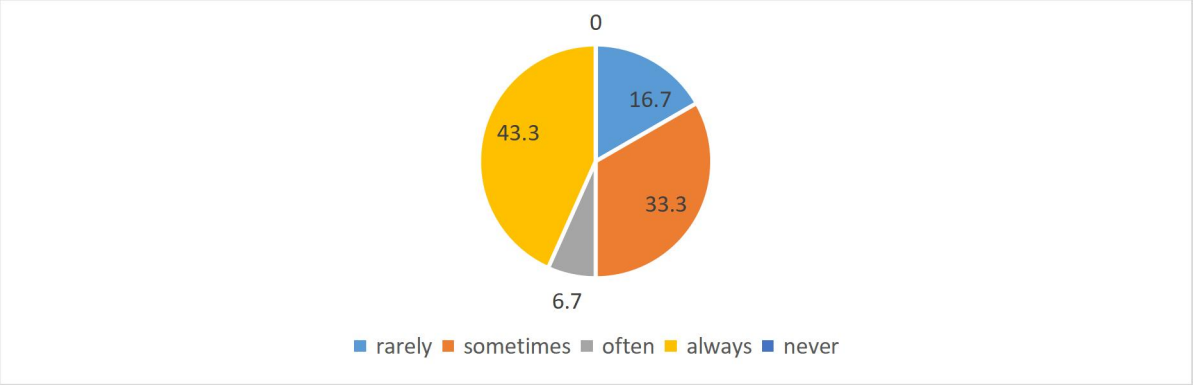
The above pie chart shows that 43.3% staff nurses selected always, 36.7% staff nurses selected often, 20.0% selected sometimes.

10. HOW OFTEN DO YOU INVOLVE PARENTS IN THE PAIN ASSESSMENT PROCESS?



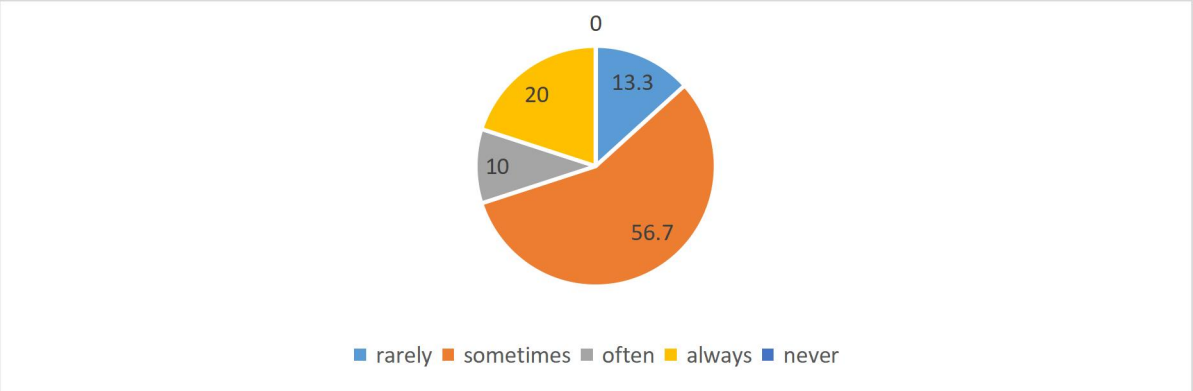
The above pie chart shows that 63.3% staff nurses selected always, 13.3% staff nurses selected never, 10% selected rarely, 6.7% selected sometimes and 6.7% selected often.

11. HOW OFTEN DO YOU CONSIDER PARENTAL CONCERNS IN THE CHILD'S PAIN MANAGEMENT PLAN?



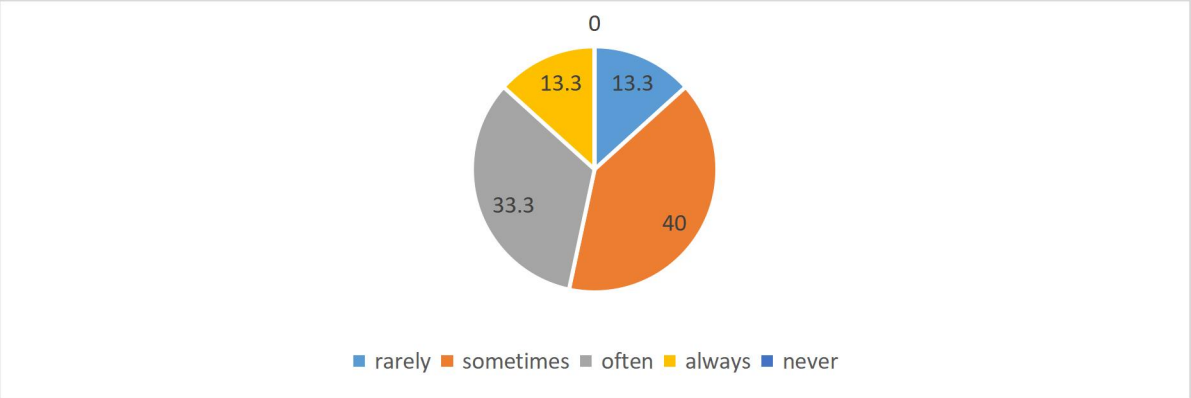
The above Pie chart shows that 43.3% staff nurses selected always, 33.3% selected sometimes, 16.7% selected Never, 6.7% selected often, 0% selected rarely.

12. HOW FREQUENTLY DO PARENTS PROVIDE HELPFUL INPUT IN ASSESSING THEIR CHILD'S PAIN?



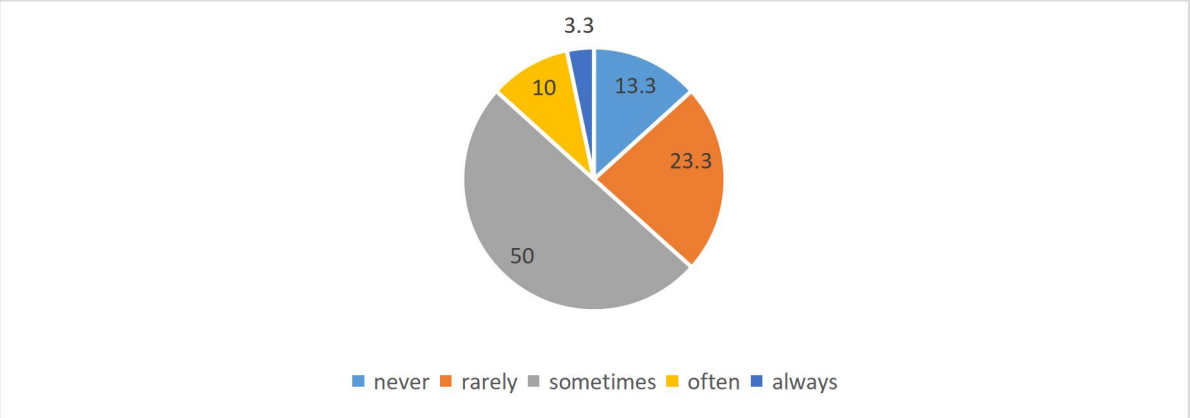
The above Pie chart shows that 56.7% staff nurses selected sometimes, 20% selected always, 13.3% selected Never, 10% selected often, 0% selected rarely.

13. HOW OFTEN DO YOU EXPLAIN THE PAIN MANAGEMENT PLAN TO PARENTS?



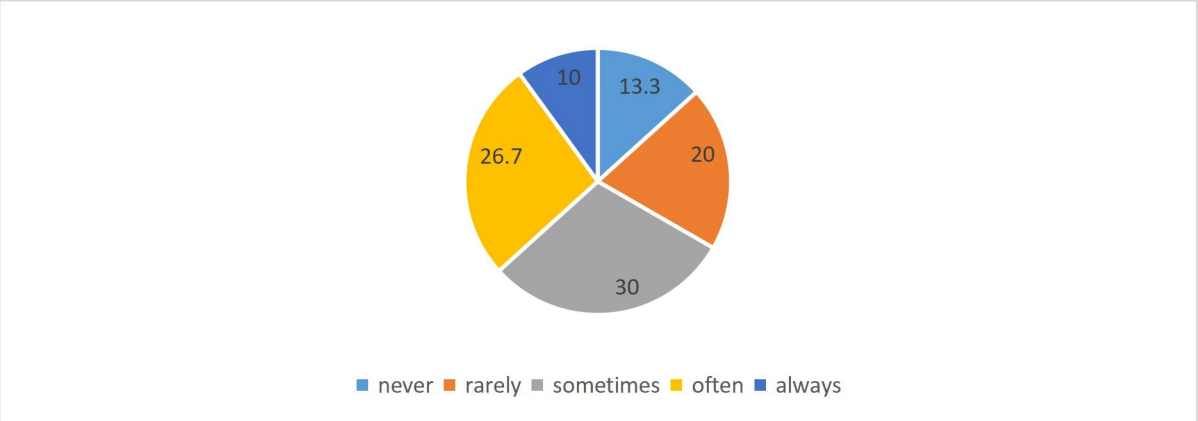
The above pie chart shows that 40% staff nurses selected sometimes, 33% selected often, 13.3% selected rarely, and 13.3% selected always, 0% selected never.

14. HOW OFTEN DO YOU USE DISTRACTION TECHNIQUES E.G. TOYS MUSIC?



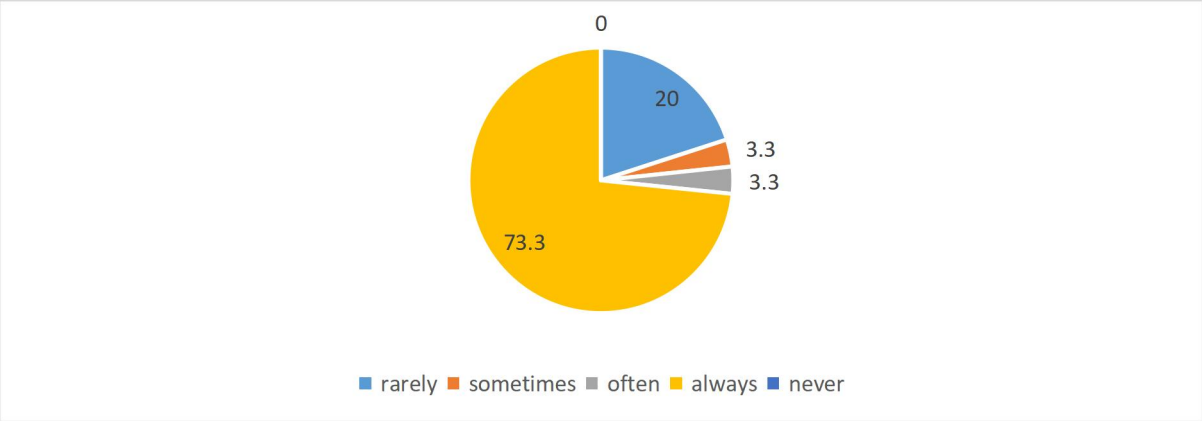
The above table shows that 50% staff nurses selected sometimes, 23% selected rarely, 13.3% selected Never, 10% selected often, 3.3% selected always.

15. HOW FREQUENTLY DO YOU EMPLOY RELAXATION TECHNIQUES?



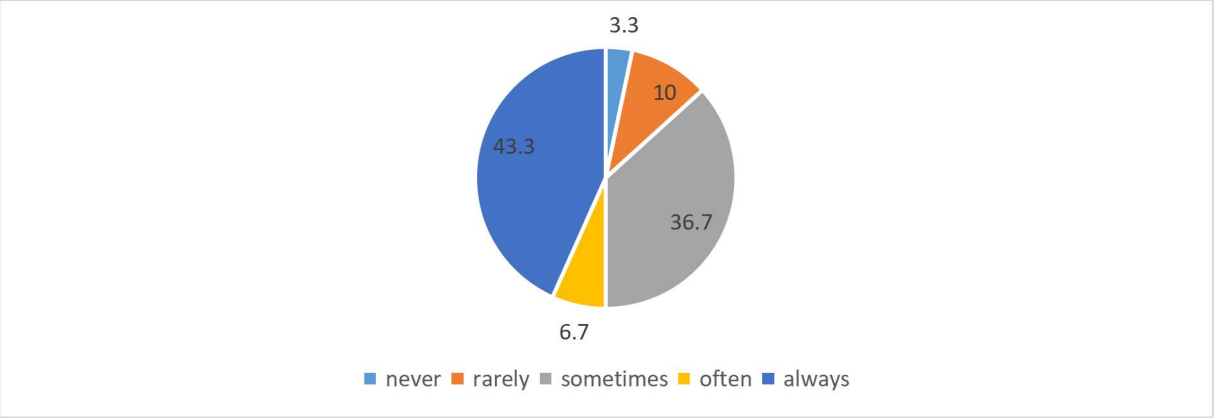
The above pie chart shows that 30% staff nurses selected sometimes, 26.7% selected often, 20% selected rarely, and 13.3% selected never, 10% selected always.

16. HOW OFTEN DO YOU UTILIZE COMFORT POSITIONING DURING PROCEDURES?



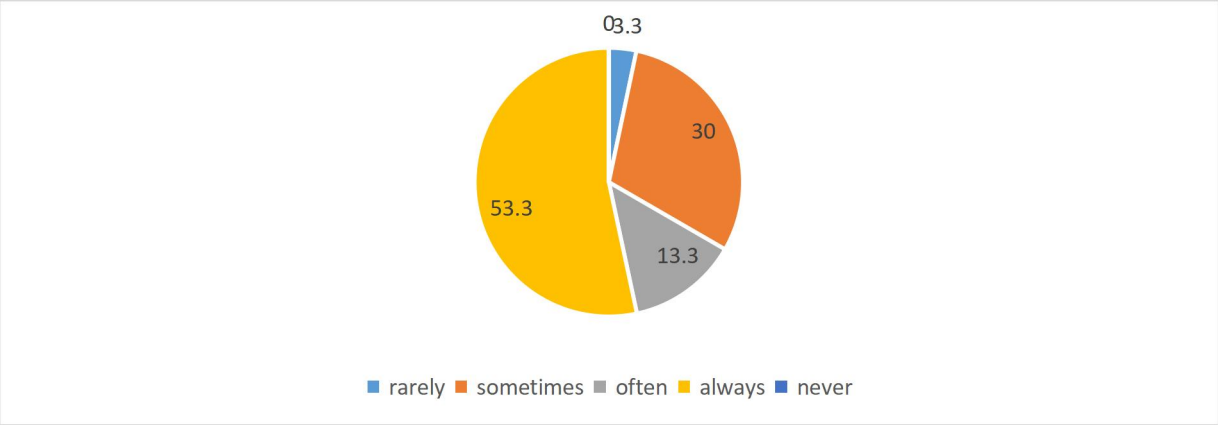
The above pie chart shows that 73.3% staff nurses selected always, 20% selected rarely, 3.3% selected sometimes, and 3.3% selected often, 0% selected never.

17. HOW OFTEN ARE COGNITIVE-BEHAVIORAL STRATEGIES INTEGRATED INTO PAIN MANAGEMENT?



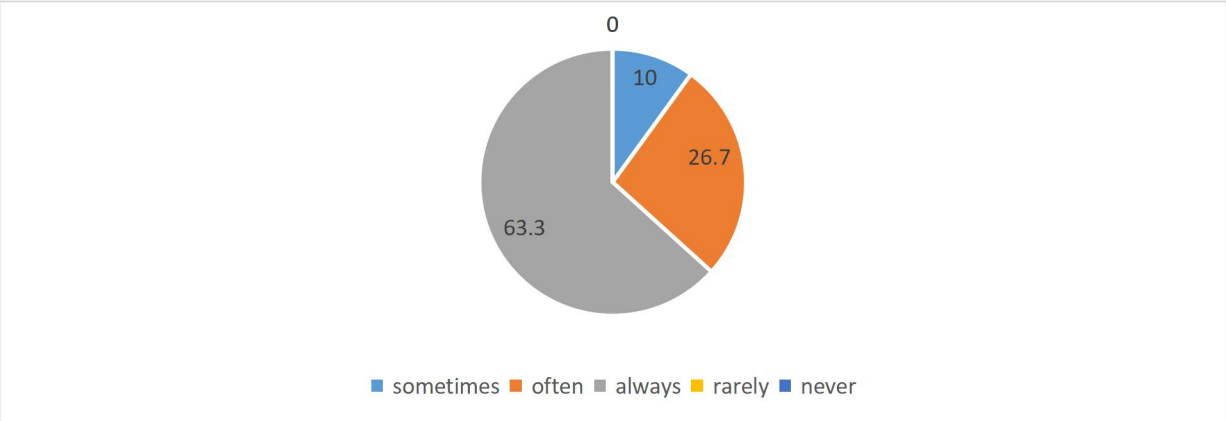
The above pie chart shows that 43.3% staff nurses selected always, 36.7% selected sometimes, 10% selected rarely, and 6.7% selected often, 3.3% selected never.

18. HOW FREQUENTLY DO YOU ADMINISTER DRUGS FOR MILD TO MODERATE PAIN?



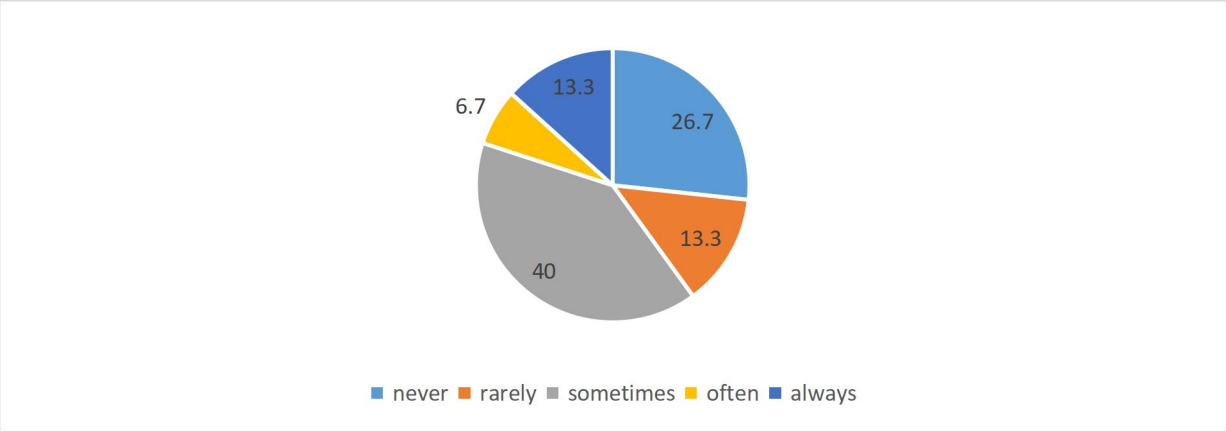
The above pie chart shows that 53.3% staff nurses selected always, 30% selected sometimes, 13.3% selected often, and 3.3% selected rarely, 0% selected never.

19. HOW FREQUENTLY DO YOU ASSESS PAIN MEDICATION EFFECTIVENESS POST-ADMINISTRATION?



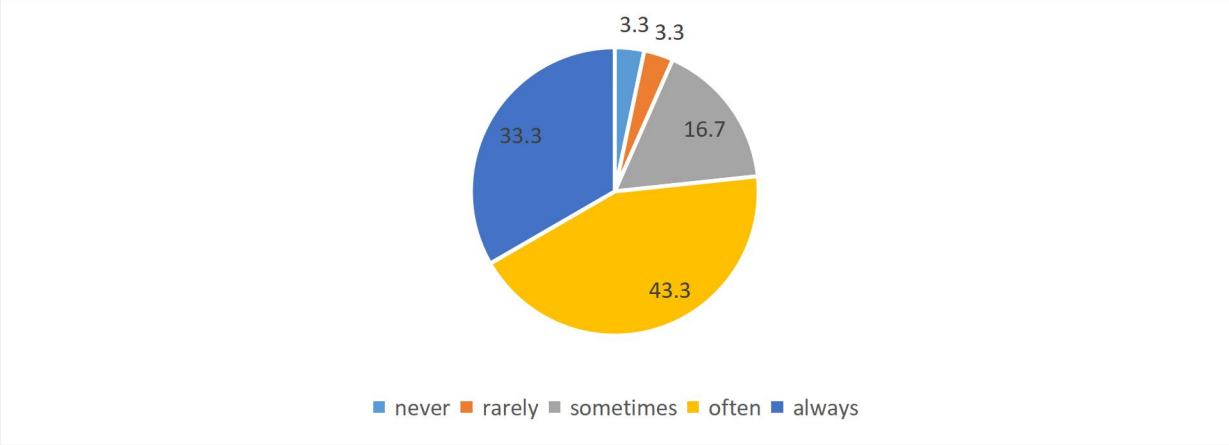
The above table shows that 63.3% staff nurses selected always, 26.7% selected often, 10% selected sometimes, and 0% selected never, 0% selected rarely.

20. HOW OFTEN DO YOU CREATE INDIVIDUALIZED PAIN MANAGEMENT PLANS?



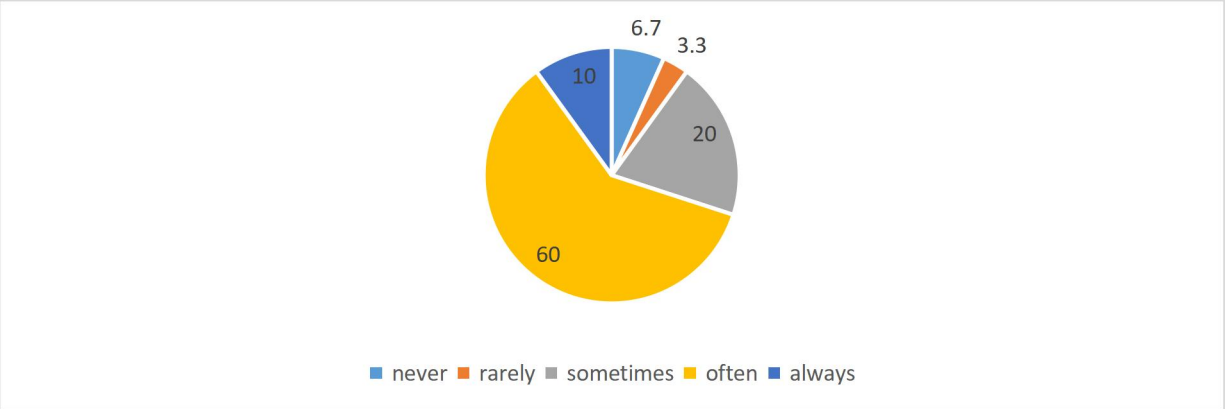
The above table shows that 40% staff nurses selected sometimes, 26.7% selected never, 13.3% selected rarely, and 13.3% selected always, 6.7% selected often.

21. HOW FREQUENTLY DO YOU MODIFY THE PAIN MANAGEMENT PLAN BASED ON TREATMENT RESPONSE?



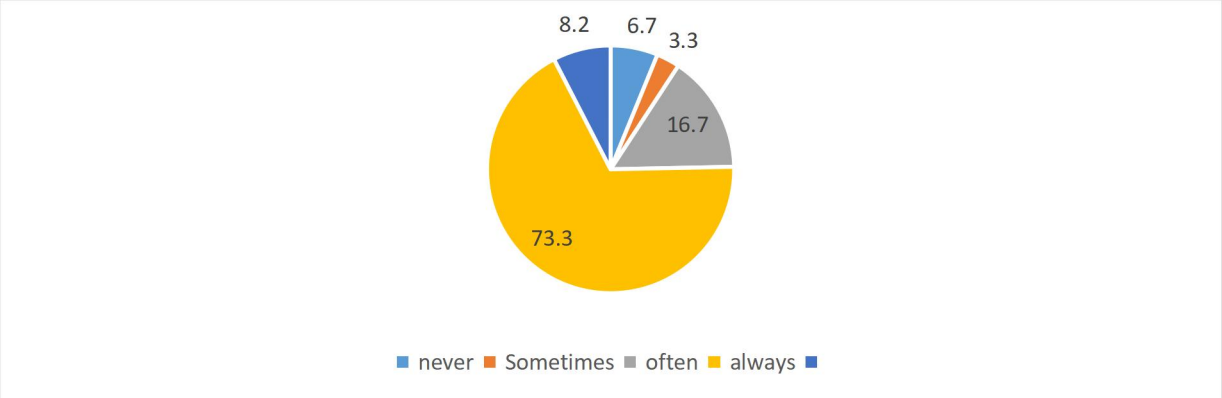
The above pie chart shows that 43.3% of nurses selected often, 33.3% of nurses selected always, 16.7% selected sometimes, and 3.3% selected rarely and 3.3% selected never.

22. HOW OFTEN DO YOU COLLABORATE WITH A MULTIDISCIPLINARY TEAM FOR PAIN MANAGEMENT?



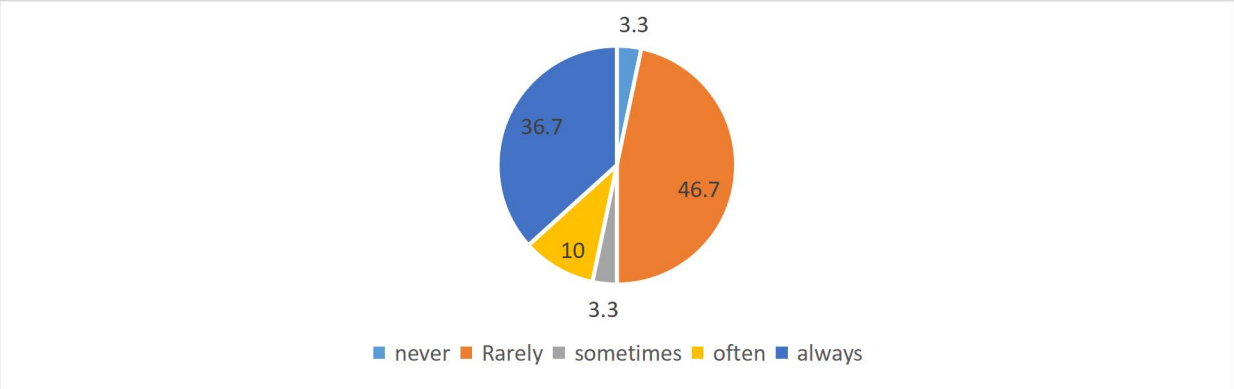
The above pie chart shows that 60% of nurses selected often, 20% of nurses selected sometimes, 10.0% nurses selected always, 6.7% nurses selected never and 3.3% selected rarely.

23. HOW OFTEN DO YOU CONSULT A PEDIATRIC PAIN SPECIALIST WHEN NEEDED?



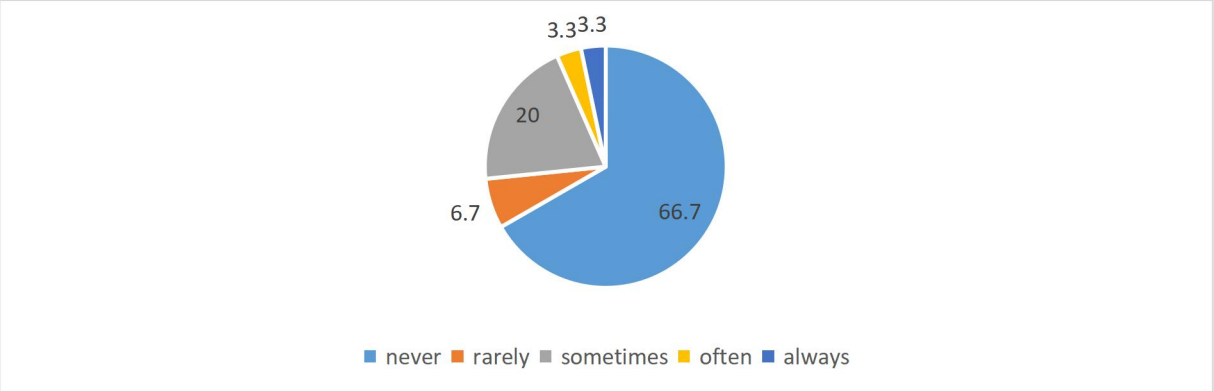
The above pie chart shows that 73.3% of nurses selected always, 16.7% of nurses selected often, 6.7% nurses selected never, 3.3% nurses selected sometimes.

24. HOW FREQUENTLY DO YOU RECEIVE TRAINING ON PEDIATRIC PAIN MANAGEMENT STRATEGIES?



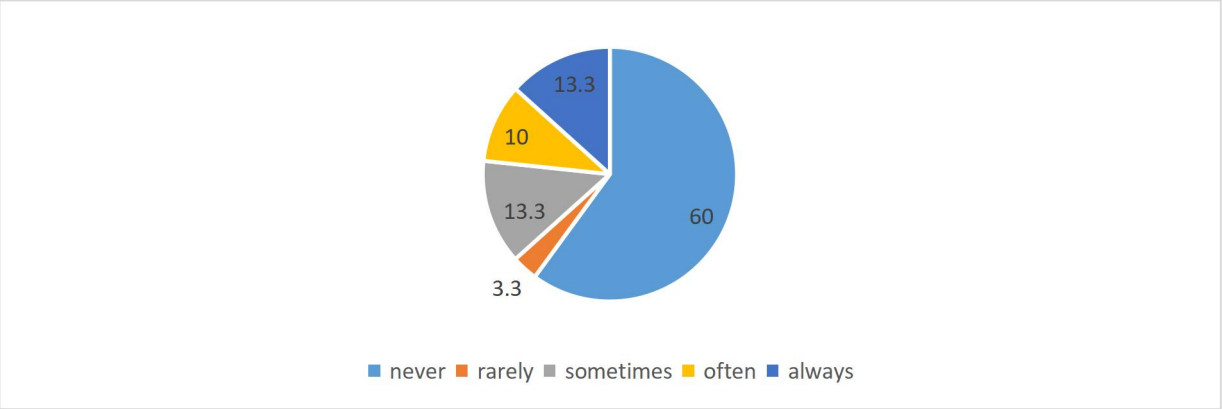
The above pie chart shows that 46.7% of nurses selected rarely, 36.7% of nurses selected always, 10% nurses selected often, 3.3% nurses selected sometimes and 3.3% nurses selected never.

25. I USE DISTRACTION METHODS E.G. TOYS GAME FOR PAIN DIVERSION.



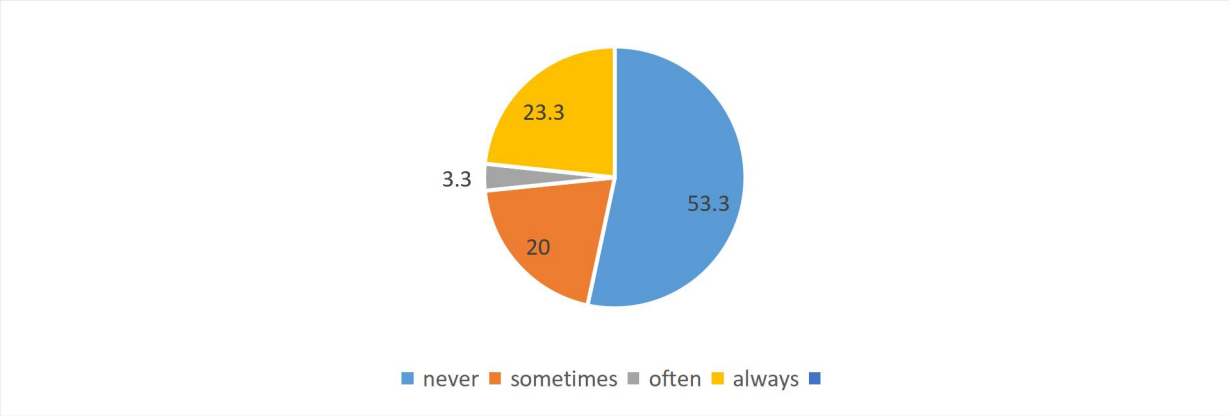
The above pie chart shows that 66.7% of nurses selected never, 20.0% of nurses selected sometimes, 6.7% selected rarely, 3.3% nurses selected always and 3.3% nurses selected often.

26. I USE MUSIC OR SOUND THERAPY TO REDUCE THE CHILD PAIN PERCEPTION.



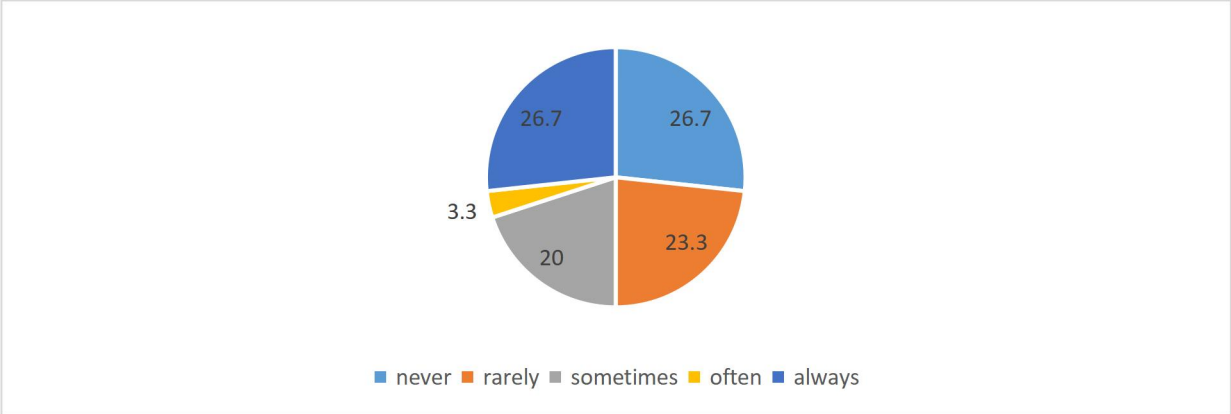
The above pie chart shows that 60.0% of nurses selected never, 13.3% selected sometimes, 13.3% selected always, and 10.0% selected often and 3.3% selected rarely.

27. I USE VISUAL DISTRACTIONS DURING PAINFUL PROCEDURES.



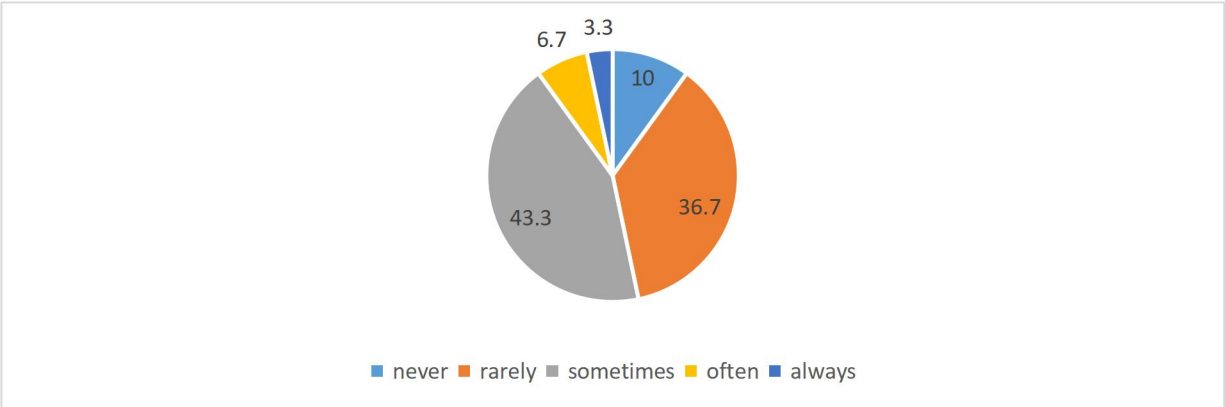
The above pie chart shows that 53.3% of nurses selected never, 23.3% of nurses selected always, 20.3% nurses selected sometimes, 3.3% nurses selected often.

28. I GUIDE CHILDREN THROUGH DEEP BREATHING EXERCISES FOR PAIN MANAGEMENT.



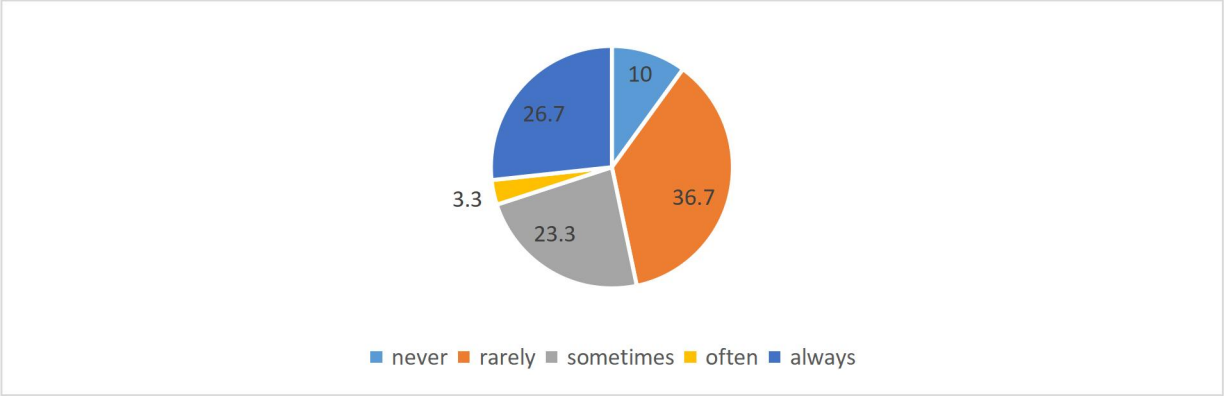
The above pie chart shows that 26.7% of nurses selected never, 26.7% of nurses selected always, 23.3% selected rarely, and 20.0% selected sometimes and 3.3% selected often.

29. I USE GUIDED IMAGERY TO HELP REDUCE PAIN PERCEPTION.



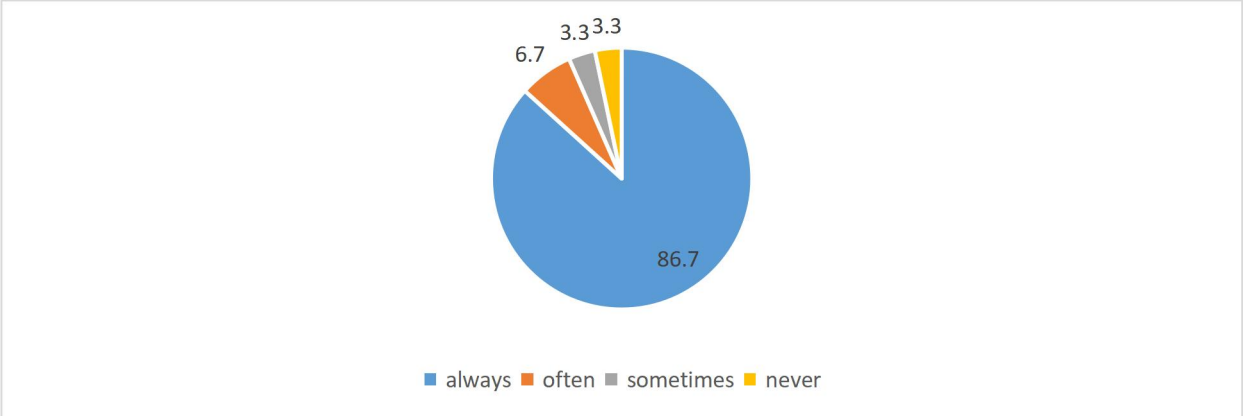
The above pie chart shows that 43.3% of nurses selected sometimes, 36.7% of nurses selected rarely, 10.0% nurses selected never, 6.7% nurses selected often and 3.3% nurses selected always

30. I TEACH RELAXATION TECHNIQUES TO REDUCE ANXIETY AND DISCOMFORT.



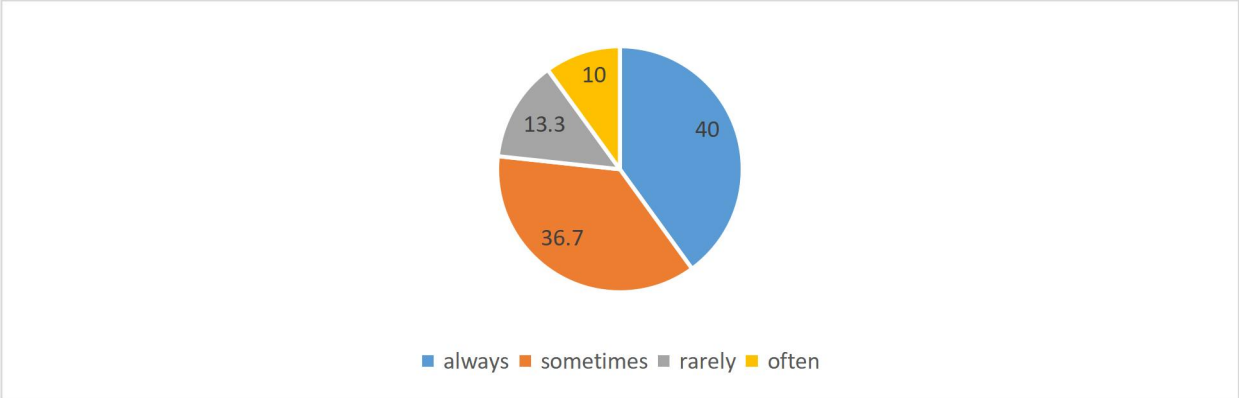
The above table shows that 36.7% of nurses selected rarely, 26.7% of nurses selected always, 23.3% nurses selected sometimes, 10.0% nurses selected never and 3.3% nurses selected often.

31. I USE COMFORT POSITIONING DURING PROCEDURES TO EASE PAIN.



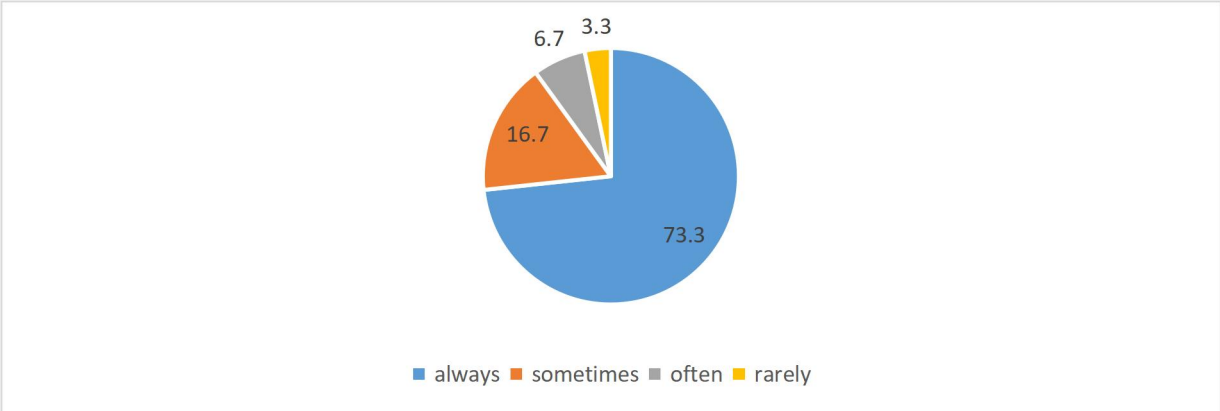
The above pie chart shows that 86.7% nurses selected always, 6.7% nurses selected often, 3.3% nurses selected sometimes and 3.3% nurses selected never.

32. I USE PHYSICAL TOUCH TO COMFORT AND REDUCE PAIN IN CHILDREN.



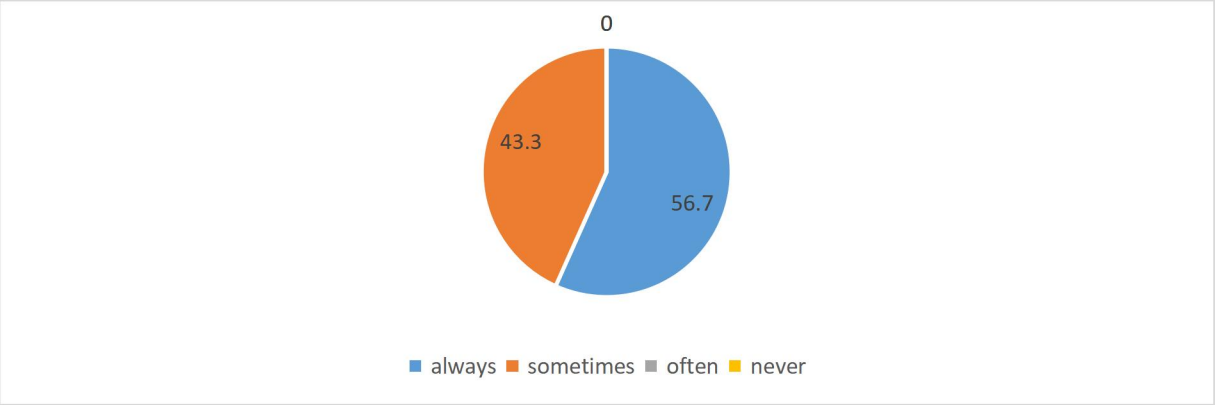
The above pie chart shows that 40% nurses have selected always, 36.7% selected sometimes, 13.3% selected rarely and 10% selected often.

33. I ENCOURAGE PARENTS TO COMFORT THEIR CHILD DURING PAIN.



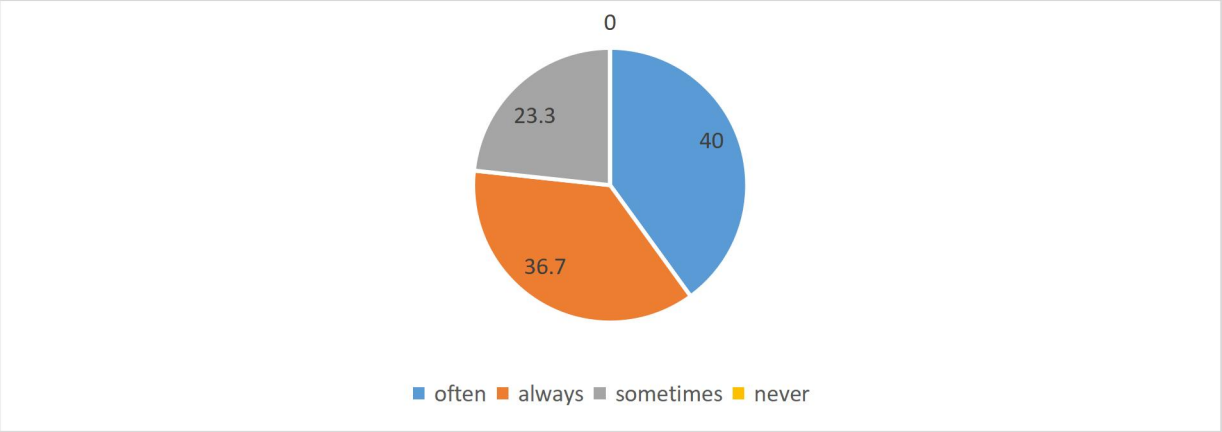
This above pie chart shows that 73.3% of nurses selected always, 16.7% nurses selected sometimes, 6.7% nurses selected often and 3.3% nurses selected rarely.

34. I ENCOURAGE PARENTS TO ACTIVELY PARTICIPATE IN NONMEDICAL PAIN MANAGEMENT



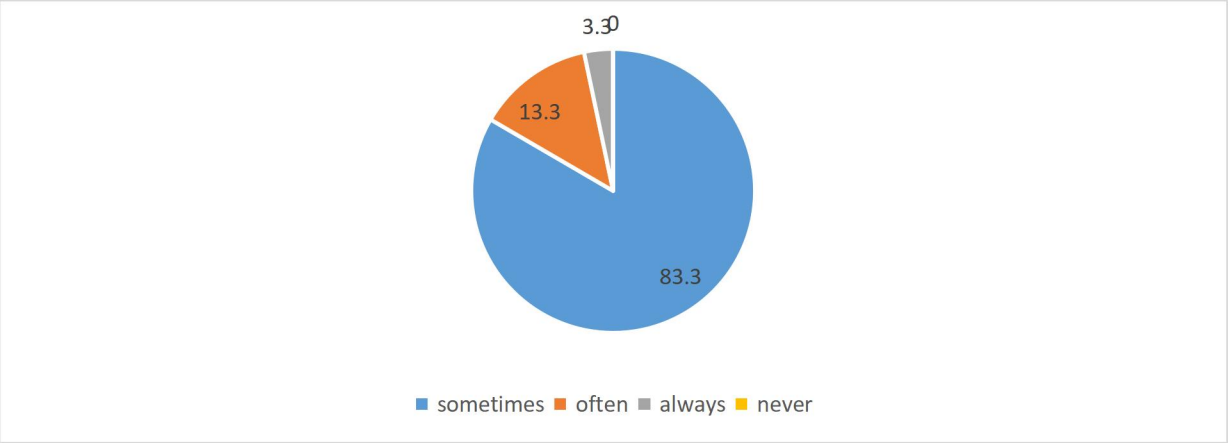
The above pie chart shows that 56.7% nurses selected always, 43.3% nurses selected sometimes, 0% nurses selected often and 0% nurses selected never.

35. I EDUCATE PARENTS ABOUT NON-PHARMACOLOGICAL STRATEGIES FOR PAIN MANAGEMENT.



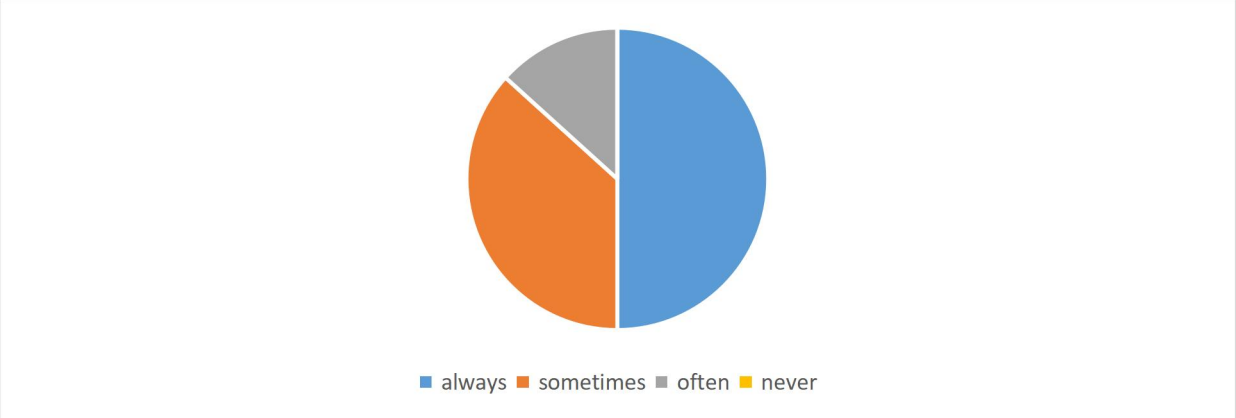
The above pie chart shows that 40% nurses selected often, 36.7% nurses selected always, 23.3% nurses selected sometimes.

36. PARENTS OR CAREGIVERS ARE EFFECTIVE IN MANAGING THEIR CHILD'S PAIN USING NON-PHARMACOLOGICAL TECHNIQUES.



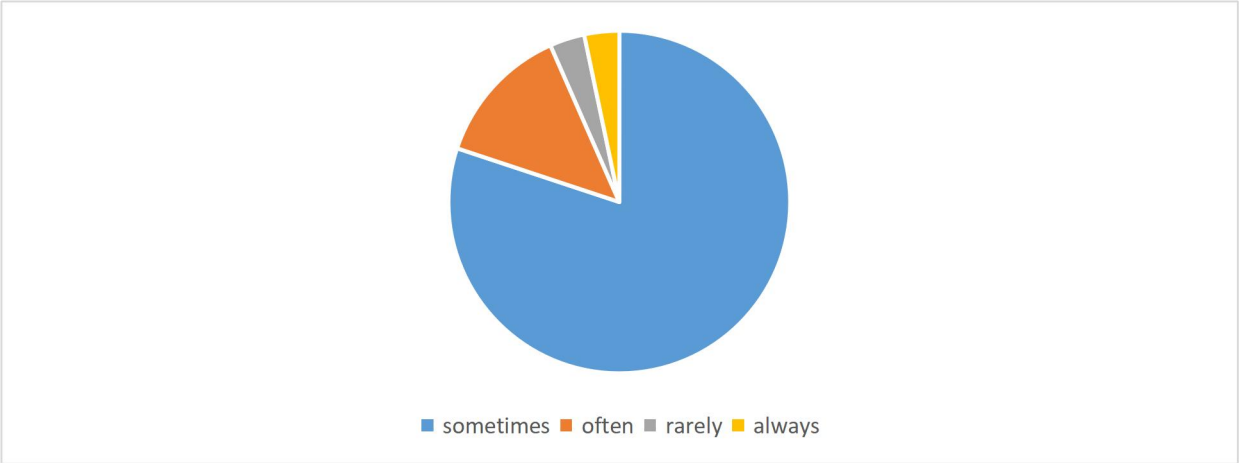
The above pie chart shows that 83.3% nurses selected sometimes, 13.3% nurses selected often, 3.3% nurses selected always and 0% nurses selected neve

37. I MODIFY THE CHILD'S ENVIRONMENT TO REDUCE PAIN-RELATED STRESS.



The above pie chart shows that 50% nurses selected always, 36.7% nurses selected sometimes, 13.3% nurses selected often and 0% nurses selected never

38. I USE HEAT OR COLD THERAPY TO ALLEVIATE PAIN IN CHILDREN.



The above pie chart shows that 80% nurses selected sometimes, 13.3% nurses selected often, 3.3% nurses selected rarely, 3.3% nurses selected always.

DISCUSSION

This study provides a comprehensive examination of pediatric pain management practices among nurses, revealing critical insights into current methodologies, gaps in implementation, and opportunities for improvement. The findings illuminate both strengths and weaknesses in how pain is assessed and managed in pediatric settings, while also highlighting systemic challenges that require institutional attention. By analyzing these results in the context of existing literature and practical realities, we can formulate actionable recommendations to enhance the quality of care delivered to pediatric patients experiencing pain.

PAIN ASSESSMENT PRACTICES

The study found moderate adherence to standardized pain assessment tools, with 53.3% of nurses consistently using the FLACC scale and 33.3% employing the Wong-Baker FACES scale. This suggests that while evidence-based assessment methods are being utilized, there remains significant room for improvement in universal adoption. The FLACC scale's higher usage rate may reflect its suitability for non-verbal children, a common challenge in pediatric care. However, the fact that nearly half of nurses do not consistently use these validated tools indicates either a lack of training or systemic barriers to implementation.

Clinical observation for non-verbal children was widely reported (43.3% always, 36.7% often), demonstrating nurses' reliance on their professional judgment when standardized tools are not employed. While observational methods are valuable, particularly for infants and non-communicative patients, the literature emphasizes that they should complement rather than replace structured assessment tools. The 20% of nurses who only sometimes use observational methods may represent a concerning gap in comprehensive pain monitoring.

PHARMACOLOGICAL INTERVENTIONS

Pharmacological approaches showed strong adoption, with 53.3% of nurses always administering medications for mild to moderate pain and 63.3% consistently assessing medication effectiveness post-administration. This high compliance rate with pharmacological protocols suggests that drug-based interventions are well-established in clinical practice. However, the finding that 30% only sometimes administer pain medication raises questions about potential under treatment in certain cases.

The strong performance in post-administration assessment (63.3% always evaluating effectiveness) is particularly encouraging, as it demonstrates a commitment to monitoring treatment outcomes rather than simply initiating interventions. This practice aligns with current best practice guidelines emphasizing the importance of continuous pain assessment throughout the care process.

NON-PHARMACOLOGICAL STRATEGIES

The study revealed striking inconsistencies in the use of non-pharmacological approaches. While comfort positioning showed excellent adoption (73.3% always use), other evidence-based techniques were significantly underutilized. Distraction methods were particularly neglected, with 66.7% of nurses never using toys or games and 60% never employing music therapy. Similarly, only 26.7% consistently used deep breathing exercises, and guided imagery was rarely implemented (43.3% sometimes, 36.7% rarely). These findings suggest that while nurses are proficient with physical comfort measures, cognitive-behavioral techniques remain underused. This gap may stem from several factors: lack of training in these methods, perceived time constraints in busy clinical environments, or uncertainty about their effectiveness. Given the substantial evidence

supporting non-pharmacological interventions for pediatric pain, this represents a critical area for improvement.

PARENTAL INVOLVEMENT

Parental engagement emerged as both a strength and an area needing development. While 63.3% of nurses always involved parents in pain assessment and 73.3% encouraged parental comforting during procedures, education about non-pharmacological strategies was less consistent (40% often, 36.7% always). This discrepancy suggests that while nurses recognize parents' emotional support role, they may undervalue their potential as active participants in pain management.

The finding that 83.3% of nurses believed parents were only sometimes effective in managing pain non-pharmacologically implies that better caregiver education could enhance outcomes. Developing structured programs to teach parents simple, evidence-based techniques could amplify the effectiveness of both in-hospital and at-home pain management.

INTERDISCIPLINARY COLLABORATION

The strong showing in interdisciplinary collaboration (73.3% always consulting pain specialists) indicates robust teamwork in complex cases. This high compliance rate likely reflects institutional culture and the recognition of pain specialists' expertise. However, the finding that 60% often but only 10% always modified plans based on team input suggests room for more systematic integration of multidisciplinary recommendations.

TRAINING AND EDUCATION

Perhaps the most concerning finding was the lack of consistent training, with 46.7% rarely receiving instruction on pediatric pain management strategies. This training gap likely contributes to several of the practice inconsistencies identified, particularly in non-pharmacological methods. The 36.7% who reported always receiving training may represent specialty nurses or those in leadership roles, highlighting disparities in educational access.

These findings largely align with previous studies identifying gaps in pediatric pain management. Like Hicks et al. (2018), we found assessment tool usage

inconsistent despite their proven benefits. Our pharmacological results mirror Twycross's (2017) findings of good medication adherence but occasional undertreatment. The non-pharmacological gaps are particularly concerning given increasing evidence of their efficacy (Uman et al., 2013), suggesting institutional rather than evidence-based barriers.

IMPLICATIONS FOR CLINICAL PRACTICE

Comprehensive Training Programs: Hospitals should implement mandatory, regular training covering both pharmacological and non-pharmacological methods, with competency assessments.

Standardized Protocols: Clear guidelines should mandate specific assessment tools for different age groups and pain types.

Resource Allocation: Units should be equipped with distraction tools and comfort items to facilitate non-drug interventions.

Parent Education Materials: Develop visual guides and quick-reference materials to help parents participate effectively.

Documentation Systems: Electronic health records should prompt pain reassessment and intervention evaluation.

RECOMMENDATIONS

Strengthen Training Initiatives: Conducting regular workshops and continuing education programs can enhance nurses' understanding and practical application of both pharmacological and non-pharmacological pain management techniques.

Promote Non-Pharmacological Techniques: Hospitals should encourage the use of evidence-based non-pharmacological strategies, including distraction techniques, music therapy, guided imagery, and relaxation exercises.

Implement Standardized Pain Assessment Tools: Establishing hospital-wide guidelines for the consistent use of validated pain assessment scales (e.g., FLACC, Wong-Baker FACES) can ensure more accurate evaluation and treatment of pain.

Encourage Parental Engagement: Training nurses to effectively communicate pain management plans with parents and involve them actively in their child's pain relief can improve patient outcomes.

Foster Interdisciplinary Collaboration: Strengthening teamwork among nurses, pediatricians, and pain management specialists can lead to more comprehensive and effective pain management plans.

Ensure Availability of Pain Management Resources: Hospitals should provide easy access to necessary tools, including distraction aids, music therapy devices, and relaxation guides, to support effective pain management.

Identify and Overcome Barriers: Future research should examine the obstacles nurses face in implementing pain management strategies, such as workload pressures, institutional policies, and resource constraints.

Conduct Longitudinal Research: Future studies should monitor changes in nurses' pain management practices over time to assess the impact of interventions and training programs.

Expand Sample Size and Diversity: Including multiple hospitals and a larger pool of nurses in future studies can provide a broader and more representative understanding of pain management practices.

Implementing these recommendations could enhance pediatric pain management, improve patient care, and better equip nurses with the necessary skills and knowledge for effective pain relief.

CONCLUSION

This study paints a picture of pediatric pain management that is fundamentally sound in its pharmacological approach and basic comfort measures, but inconsistent in its application of comprehensive, evidence-based strategies. The good news is that the identified gaps - particularly in non-pharmacological methods and training - are addressable through systematic interventions. By implementing structured training programs, standardizing protocols, and better engaging parents as partners, healthcare institutions can significantly enhance the quality of pain management for pediatric patients. The ultimate goal - ensuring every child receives timely, appropriate, and effective pain relief - is well within reach with focused quality improvement efforts. As the evidence base for pediatric pain management continues to grow, so too must our commitment to translating that evidence into consistent, compassionate practice.

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