

# A Study to assess the Knowledge level of the Nurses regarding pain management and the adherence to pain management protocols and its impact on patient satisfaction at Apollomedics Super Speciality Hospitals Lucknow.

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**Abstract**– Pain is a distressing feeling often caused by intense or damaging stimuli. The International Association for the Study of Pain defines pain as "an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage." Nurses are the first to encounter a patient in pain, therefore it is important for nurses to have the knowledge and awareness about Pain Assessment and its management. It is a major symptom which interferes with a person's quality of life and general functioning. Through this research we aimed to determine the knowledge level of the Nurses regarding pain management including the adherence to pain management protocols and its impact on patient's satisfaction at Apollomedics Super Speciality Hospitals Lucknow. Data was gathered from 300 nurses through a structured questionnaire that had been carefully evaluated by nursing professionals to guarantee its accuracy. The goal was to assess their knowledge and understanding of pain management in patient care. Researchers used a one-group pretest-post-test design to evaluate how well 300 nurses throughout the hospital managed pain and followed the established protocol. This study reveals that the knowledge of the registered nurses before training was 29% nurses had below-average, 69.30% had average and only 1% had above average. Whereas after the training 68% of nurses had above average knowledge and 32% nurses had average knowledge. Therefore, after the nurses received training, awareness of pain management rose by 66%, adherence to protocol reached 96.83%, and patient satisfaction increased to 97%. Therefore, after the implementation of structured teaching program on pain management and pain management protocol have made a vast difference in the percentage.

**Keywords:** Pain Management, Adherence to pain management protocols, staff's knowledge outcomes.

## I. INTRODUCTION

*"Pain nourishes courage. You cannot be brave if you have only had wonderful things happen to you."*

It is a complex process requiring critical thinking and clinical reasoning. The current opioid crisis has brought new challenges to health care professionals who provide pain management, and this is a concern for nurses also <sup>1</sup>. It is important for the nurses to be aware of the pain management protocols and to assess patients with pain<sup>2</sup>. Thus, using a standardised pain scoring tool, adhering to established protocols, regularly reassessing patients as needed, and seeking feedback on pain management based on priority are all important steps.

The scope and complexity of care shall be determined through the assessment and evaluation of patients currently experiencing or expected to experience pain symptoms. Patients and "significant others" shall receive easily accessible pre-therapy for pain management. Pain is now receiving greater attention as a key outcome by hospital accrediting organizations like NABH and the Joint Commission. Failure to manage pain effectively is costly to the organization and impacts the quality of life and other physical and emotional outcomes of patients.<sup>5</sup> In addition to bringing organizational standards and practice at par with the nationally accepted guidelines for pain management, it is essential to continue to develop more reliable and valid measures in efficacy in improving a variety of patient outcomes.

## II. AIM

The aim of this study is to explore the nurses' awareness and knowledge on pain management protocol followed in the hospital and its impact on patient satisfaction.

### III. OBJECTIVES OF THE STUDY

- To Assess the knowledge of nurses before the teaching program on pain management protocol.
- To Assess the knowledge of nurses after the teaching program on pain management protocol.
- To evaluate nurse's adherence to pain management protocol before the training.
- To evaluate nurse's adherence to pain management protocol after the training.
- To assess the impact on patient satisfaction.

### IV. HYPOTHESIS

- H1: There will be a significant difference in the knowledge of the nurses regarding the pain management before and after the training.
- H01: There will be no significant difference in the knowledge of the nurses regarding the pain management before and after the training.
- H2: There will be a significant difference in the adherence of the nurses to the pain management protocol before and after training.
- H02: There will be no significant difference in the adherence of the nurses to the pain management protocol before and after the training.
- H3: There will be a significant impact on the patient satisfaction regarding pain management before and after the training.
- H03: There will be no significant impact on the patient satisfaction regarding pain management before and after the training.

### V. METHODOLOGY

The research was conducted at Apollomedics Super Speciality Hospitals in Lucknow, Uttar Pradesh, over a one-month period beginning August 22. Prior to the main study, a pilot investigation established the suitability and utility of the WONG-BAKER FACES pain scale as an assessment instrument. The study population consisted of registered nurses available during data collection at Apollomedics Super Speciality Hospitals. A total of 300 registered nurses were selected using convenience sampling. Data collection was carried out from August 1 to August 31, 2022.

Descriptive and inferential statistics were utilized to analyses and interpret the data. The study employed a quantitative methodology, featuring pre- and post-evaluations via a structured questionnaire to assess staff nurses' competence in pain management and adherence to established protocols. Nursing and medical professionals evaluated the tool for content validity, and its reliability was determined through the test-retest method.

The data collection instrument was divided into three sections: Section A comprised 15 multiple-choice questions with a total of 30 marks (2 marks per question); Section B included 20 multiple-choice questions totalling 40 marks; Section C consisted of four Likert-scale questions with a maximum score of 20. To facilitate knowledge assessment, the researcher set 66% as the threshold for above-average performance.

### VI. Result

The data collected from the registered nurses or analyses and interpreted using descriptive and inferential statistics. The analysis and interpretation were done in to parts-

#### Session A- Demographic Characteristics of the Registered Nurses

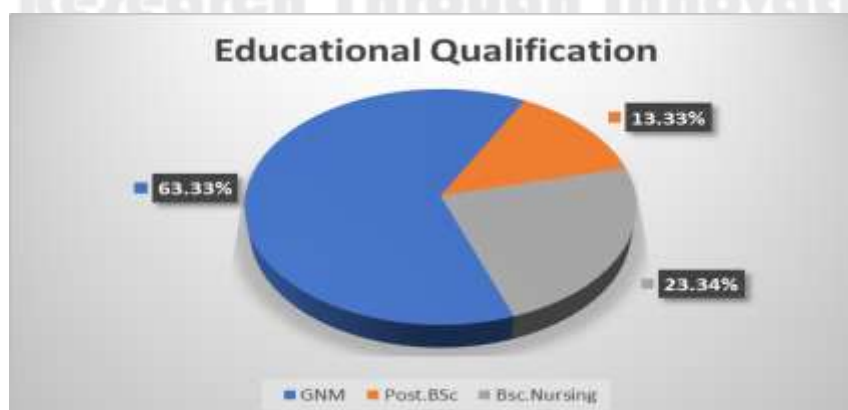
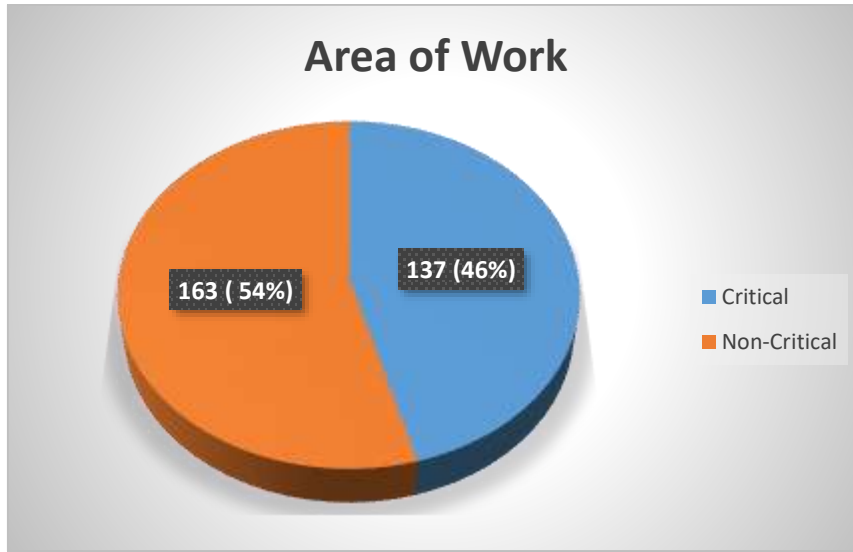


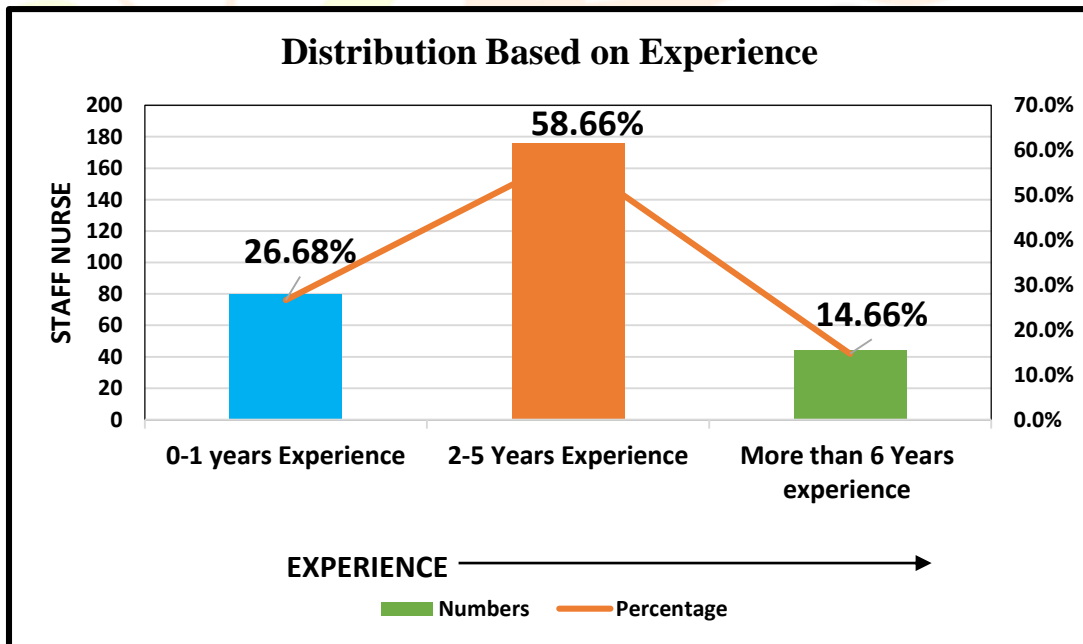
Fig1: Educational Qualification of the registered nurses

**Interpretation:** Data depicted from figure 1 is that 63.33% nurses were GNM qualified, 23.34% were BSc. Nursing qualifieand13.33%werePost-BSc.Qualified.



**Fig 2: Area of work of the Registered Nurses**

**Interpretation:** Data depicted from figure 2 is that 46% were from critical ward and 54% nurses were from non-critical ward.  
n=300



**Fig 3: -Experience of the Registered Nurses**

**Interpretation:** Data depicted from figure 3 is that 26.68% nurses had 0-1-year of experience, 58.66% nurses had 2-5-years of experience and 14.66% nurses had more than 6years of experience

**Session B- Knowledge level of the Nurses Regarding Pain Management**

**Table 1: Knowledge Scores of Nurses Before and After Training on Pain Management**

n=300

Knowledge Level	Before Training (Pre-Test)	After Training (Post-Test)
Below Average	29%	0%
Average	69.30%	32%
Above Average	1%	68%

**Interpretation:** Data depicted from table 1 described that there was significant increase in the knowledge of the nurses ,represents the data compares before the training 29% nurses are thee below average ,69.30% are average and only 1% was above average whereas after the training most of the staff nurses that is 68% was above average and 32% was having average knowledge nurses . n=300

Knowledge Assessment	Mean	Median	Standard Deviation
Pre-Test	41.19	40	13.97
Post-Test	78.97	77	10.98

**Table 2: Mean, median and standard deviation of Knowledge level of the nurses regarding pain management.**

**Interpretation:**

Data depicted from table 1 represents that in the pre-test, the nurses mean score was 41.19 whereas in the post test it was 78.97, the median in the pre-test was 40 whereas in the post test it was 77 and, at last, the standard deviation in the pre-test was 13.97 and in the post test it was 10.98. hence, there is a significantly improvement after providing the Standardized training program.

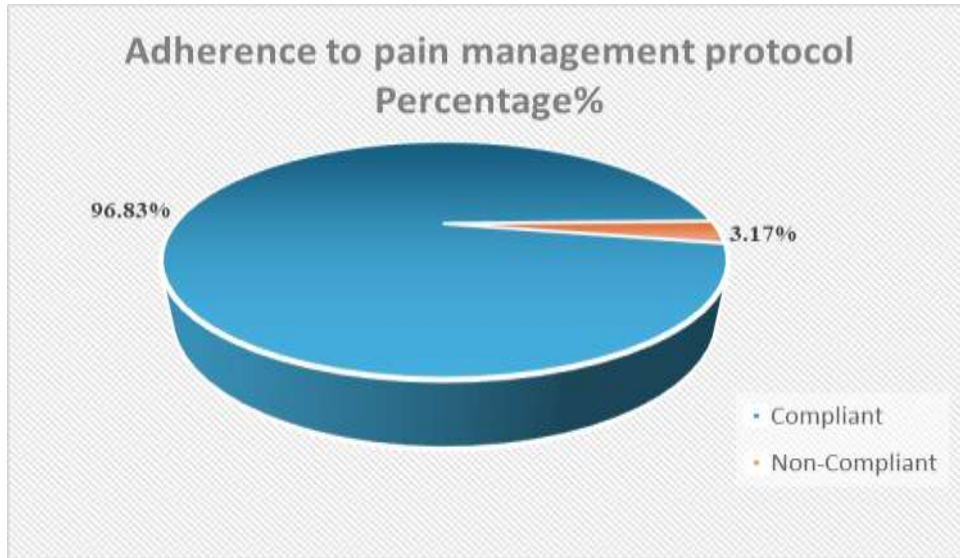
**Table 3: Paired T-test to assess the effectiveness of the training programme regarding knowledge of the nurses regarding pain management...**

n=300

Knowledge assessment	Mean	Standard deviation	Standard error	Paired value	T-test
Pre-Test	41.19	13.97	1.026	36.83	
Post-Test	78.97	10.98			

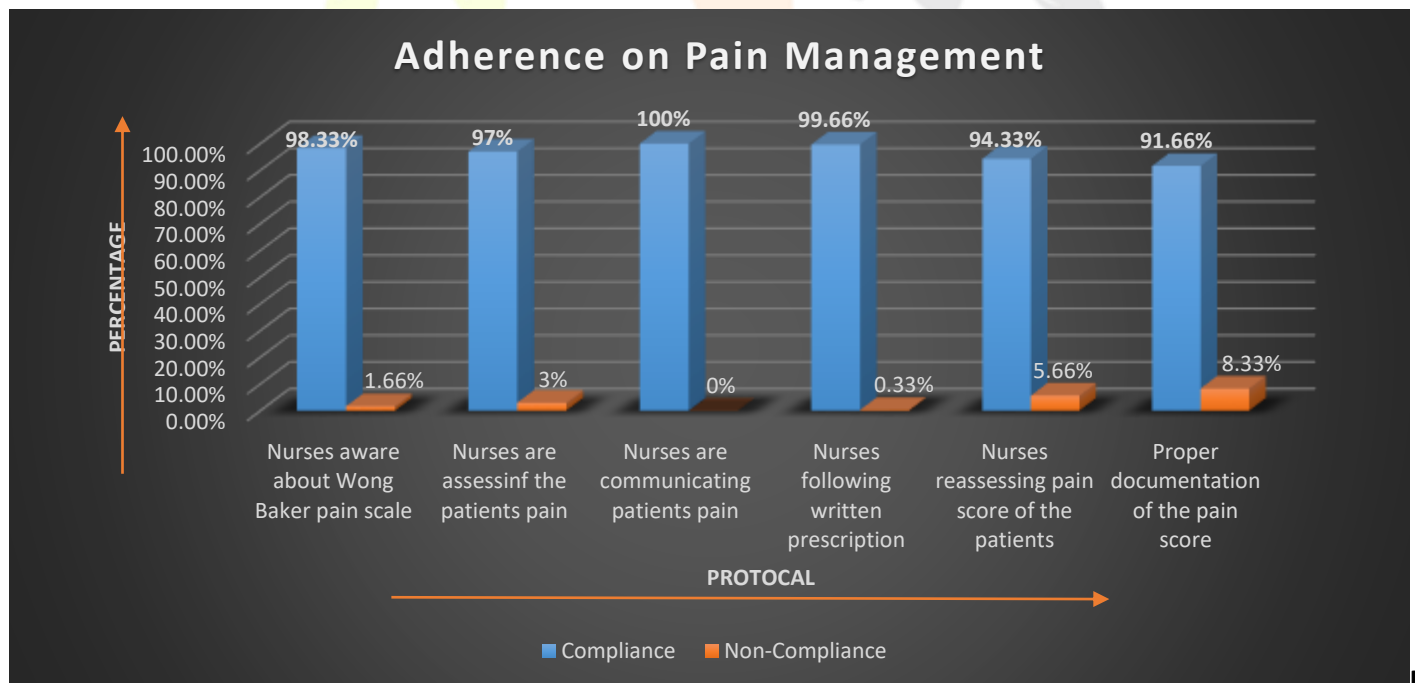
**Interpretation:** The Paired-test value that is 36.83 that is more than the table value that is 2, it shows that the mean difference is not by chance, and the training programme is found to be statistically significant creasing the knowledge of the nurses regarding the pain management.

**Session C- Adherence of the nurses to the pain management protocol**



**Fig 4: Adherence on pain management protocol**

**Interpretation:** Data depicted of Figer-4 described Adherence to pain management protocol percentage that is 96.83% Compliant whereas the 3.17% is non-compliant

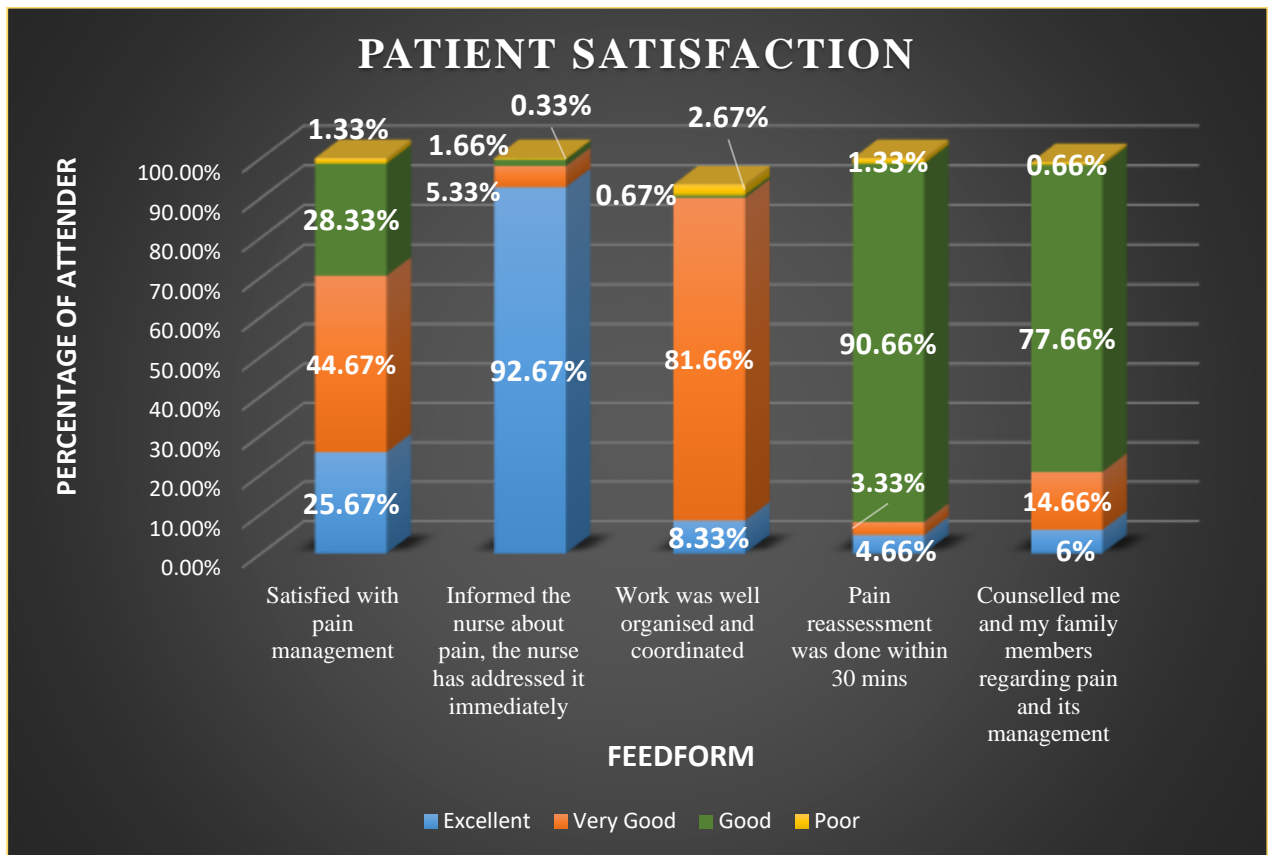


**Fig**

**5 Graphical presentation on Adherence on pain management**

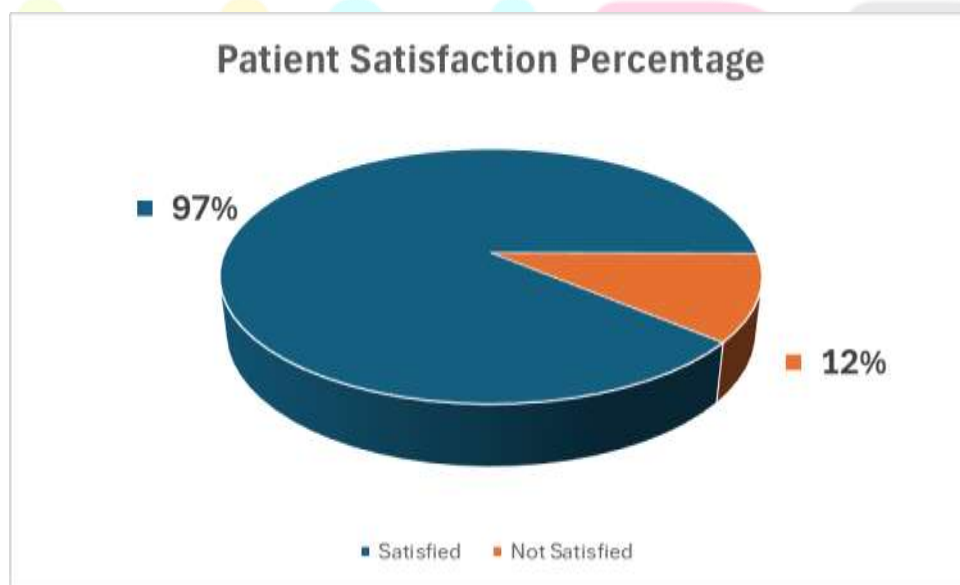
**Interpretation:** Data depicted from figure 5 is that nurses are adhering to the pain management protocols of the hospital. n=300

**Session D- Impact of the nurse’s knowledge and adherence to pain management protocol on the patient satisfaction**



**Fig 6: Bar Graphical presentation on Frequency and Distribution of Patient Satisfaction**

- **Interpretation:** Data depicted from figure 6 is that majority of the attenders have marked “Very good” 44.67% (134) that they were satisfied with the pain management.
- Majority of the attenders have responded “Excellent” 278(92.67%) that the nurse has addressed the pain immediately.
- Majority of the attenders have responded that work was well organised and coordinated was “Very Good” 245 (81.66%).
- Majority of the attenders have marked “Good” 272 (90.66%) that pain reassessment was done within 30 minutes.
- Majority of the attenders have responded that counselling for patient and family members regarding pain and its management was “Good” 233 (77.66%).



**Fig 7: Percentage of impact on Patient Satisfaction**

**Interpretation:** Data depicted from figure7 shows the impact of patient satisfaction percentage was 97% coverage.

## VII. DISCUSSION -

The findings of this study highlight critical insights into the knowledge levels of nurses regarding pain management and their adherence to institutional protocols. The implementation of a Structured Teaching Program on pain management protocols demonstrably significant and positive impact on the quality of nursing care at Apollomedics Super Speciality Hospitals.

The pre- and post-test results confirm the immediate success of the intervention, with a proven 29% nurses had below-average, 69.30% had average and only 1% had above average. Whereas after the training 68% of nurses had above average knowledge and 32% nurses had average knowledge. This improvement is statistically significant, evidenced by the change in the average knowledge **scoring** from a pre-test mean of **41.19** to a post-test mean of **78.97**. This validates that knowledge is the critical precursor to had 96.83% and patient satisfaction had 97%.

Crucially, this enhanced knowledge has translated into superior clinical practice and improved patient experience, as reflected in the high patient satisfaction **scoring** with 92.67% of attenders rating the nurse's immediate response to pain as "Excellent".

## VIII. CONCLUSION

Effective pain management remains a core component of quality nursing care, and the findings of this study highlight the crucial role of nurses 'knowledge and adherence to established pain management protocols. When nurses understand assessment tools, treatment guidelines, and reassessment requirements, they are better equipped to provide timely, accurate, and patient-centred interventions. Adherence to protocol ensures consistency in practice reduces variations in care and directly contributes to improve patients' outcomes, safety, and satisfaction.

While the baseline knowledge among nurses is promising, there is a clear need for targeted educational interventions and stronger monitoring mechanisms to ensure consistent protocol adherence. Strengthening these areas will not only enhance clinical outcomes but also significantly improve patient satisfaction. Nurses, being the primary caregivers at the bedside, play a pivotal role in implementing the pain management as the pain is 5<sup>th</sup> vitals sign. Their knowledge, clinical judgement, and adherence to pain management protocols determine the quality and effectiveness of pain relief provided. In our institution we are sustaining this impact through clinical audits. From this study we should understand that the training will increase the knowledge and adherence and impact on patient satisfaction in our hospital we are continuing giving education to the nurses regarding pain management and through clinical audits we are regularly assessing the adherence to pain management protocol. Continuous education, regular audits and supportive supervision are the key strategies to sustain adherence and foster ongoing improvements.

## IX. REFERENCES

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