

# The Role of Nursing in Pain Management among Surgical Patients in Jordan: A Field Study

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## ABSTRACT

An essential part of nursing care for surgical patients is pain management, which has a big influence on their quality of life and rate of recovery. Jordan emphasizes how crucial it is to assess nursing interventions' efficacy using measurable results in order to track and raise the standard of care given. By examining and evaluating care outcomes, this study seeks to understand how nurses may help surgical patients manage their pain and enhance function. The research employed a descriptive field methodology. In order to track patients' reactions to nursing interventions, data were gathered through pain level evaluations, and descriptive methods were used to evaluate the findings. According to the findings, nursing is crucial in tracking patients' health and reaction to medication, and when nursing interventions are used, pain levels significantly improve. This illustrates how good nursing interventions can greatly lessen pain and enhance patient outcomes. Lastly, the study highlights how crucial it is to rely on performance evaluation and care outcomes in order to enhance pain management during surgical procedures. It also highlights the significance of strengthening nursing staff training, honing their performance evaluation abilities, and advancing pain treatment techniques. This seeks to raise patient satisfaction, improve overall health outcomes, and raise the standard of treatment in Jordanian healthcare facilities.

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## 1. Introduction

In the context of surgical operations, which provide substantial hurdles to patients' perception of pain and reaction to therapy, pain management is essential to delivering high-quality healthcare [1]. Improved quality of life following surgery, patient satisfaction with care, and the rate of recovery are all impacted by effective pain management. Therefore, a crucial first step in guaranteeing successful and long-lasting results is comprehending the part that nursing plays in easing discomfort and enhancing patient experiences [2]. Current research does, however, still have certain shortcomings, especially when it comes to the application of visual evaluation tools that enable quick and direct performance monitoring and offer transparent, visual depictions of pain treatment results [3]. In field situations that necessitate ongoing, interactive monitoring, many

traditional methods rely on quantitative data, which makes it challenging to get results right away or provide clear, understandable assessments [4].

Research on the application of visual evaluation instruments and charts that may simply and clearly gauge the efficacy of nursing interventions in pain management is necessary in this regard. This enhances the quality of care and facilitates better decision-making [5]. The research gap is caused by the dearth of studies that successfully use unambiguous visual results and suggestions to support the monitoring and enhancement of nursing practices in pain management and to give a clear picture of how well these tools are performing as intended [6].

This study uses direct visual results and observations, including charts and diagrams, to investigate and assess the function of nursing in pain management for surgical patients in Jordan. The objective is to offer visual aids that make performance evaluation easier and enhance care quality, which will boost patient happiness and lead to better results.

### **1.1. Literature Review**

One of the most crucial factors in assessing the standard of care given to patients following surgery is pain management. It has a direct impact on accelerating recovery, lowering problems, and raising general satisfaction with medical care [7]. An assessment, a treatment plan, and the application of suitable therapies are all part of the integrated process of pain management, which aims to reduce pain and improve a patient's health over time. Nursing pain treatment strategies range from the use of pharmaceuticals to the use of non-pharmacological methods such as massage, deep breathing, breathing exercises, rest, and positional changes. Their efficacy is contingent upon the nurse's engagement with the patient's condition, ongoing observation of the patient's reaction, and adaptation of interventions to meet the patient's requirements [8].

Accurate and ongoing pain level monitoring is necessary in the context of post-surgical care. By adopting instruments that regularly evaluate the patient's status, record bodily responses, and visually display data and charts that show the patient's health progress, nurses can successfully participate [9]. Nurses can swiftly detect changes in pain levels, analyze the efficacy of interventions, and make the required decisions to improve pain management promptly and correctly thanks to these assessment results and tools, which are an essential component of the nursing performance improvement process [10].

Prior research has indicated the critical function that nursing plays in enhancing the results of pain treatment. Numerous studies have shown that graphic reports and visual documentation can be useful tools for tracking how well patients are responding to therapy and spotting patterns and changes brought about by nursing interventions [11]. Charts that are shown on a regular basis give a clear image of the condition's course and the difficulties or successes of the treatment interventions that have been used. According to certain research, for instance, the nursing staff can more easily recognize pain patterns, the time at which pain first appears, and the effect of interventions on pain management when they use pain level charts. This improves nursing's capacity to more precisely and adaptably modify and personalize the treatment plan [12].

Additionally, it has been seen that using visual results in nurse performance reviews improves continuous education and promotes creativity in care delivery. These resources offer prompt feedback, encourage professional growth, and increase awareness of important and prioritized pain management topics. The extensive use of charts and visual data in care settings has also been shown to help patients, who are more engaged and confident in the care they receive because they can plainly see how their health is progressing [13].

The review concludes by showing a growing tendency toward the integrated use of visual tools and methodologies that facilitate visual performance evaluation and assessment, speeding up improvement and assisting in the provision of more focused and efficient care. Thus, gaining a

thorough understanding of these technologies' applications and investigating how they might enhance pain treatment is a contemporary necessity that helps patients and promotes efficient nursing practice [14].

## 2. Method

The Hashemite Kingdom of Jordan's public hospitals and specialist post-operative care centers were among the healthcare institutions where the descriptive field study was carried out between January and June 2025. In order to provide a thorough and correct understanding of nursing intervention techniques and their effects on patients' circumstances, the study set out to survey and assess pain management outcomes using visual data.

Age and patient variety were taken into consideration when selecting the study population. A total of 150 patients, 90 of whom were female and 60 of whom were male, had various surgical treatments. Participants' ages ranged from 20 to 70 years old, with a moderate distribution throughout the majority of age groups and a median age of 45. In order to guarantee data accuracy and ongoing evaluation, patients with complex medical conditions or chronic illnesses that could affect pain management were also not included [15].

From an ethical standpoint, ethical approval was acquired from the appropriate committee at the participating healthcare facilities, following all ethical rules and norms pertaining to participant privacy and confidentiality. In addition to receiving written consent to participate, patients were given sufficient information about the study's purpose and were reminded that their withdrawal from the study at any time would not affect the standard of treatment they received.

Clinical care assessment reports, which included visual monitoring tools such charts and diagrams to quantify pain levels and demonstrate the progression of the condition before and after nursing interventions, were the source of research data. It was easier to observe the beneficial effects of nursing treatments over time since data were captured at predetermined intervals and clearly showed changes in pain levels.

## 3. Results and Discussion

Based mostly on visual inspection of charts created to track pain status before and after nursing interventions, the study found that patients who had surgery saw a considerable improvement in pain management. After using nursing management techniques, data gathered over the study's January–June 2025 period showed a noticeable drop in pain levels.

### 3.1. Pain level changes as a result of nursing interventions

A- Pain level before nursing interventions:

According to measures obtained from patient questionnaires and nurse assessments, the average pain level at the start of the trial was 7.8 out of 10, indicating a high pain score ranging from 7 to 8.

B- Pain level 24 hours after the intervention:

With a range of 4 to 6, the average dropped to 5.1, indicating a considerable improvement in pain levels following the use of nursing interventions such medication management, creating a comfortable setting, and teaching deep breathing techniques.

#### C - Pain level after 48 hours

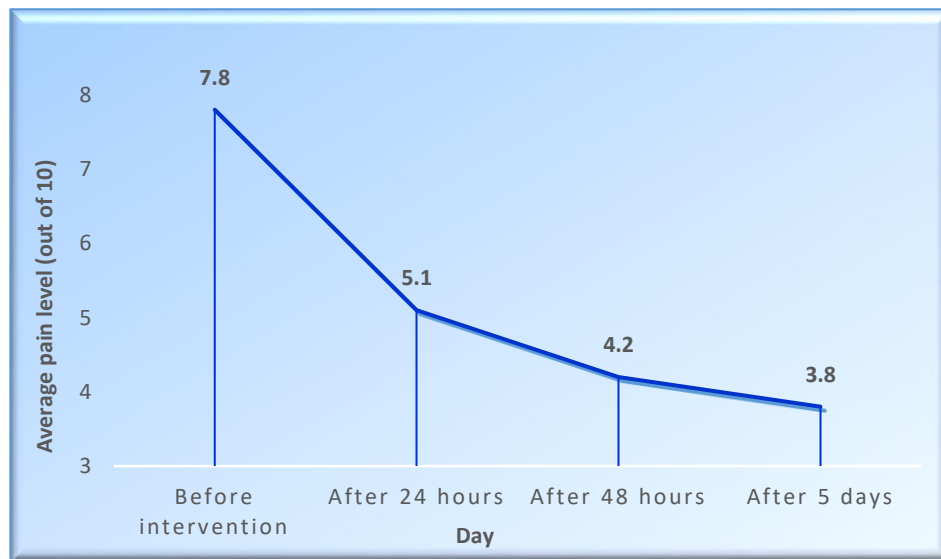
With an average score of 4.2 on a scale of 3 to 5, the charts showed a noticeable improvement, signifying a successful reaction to nursing care and therapy.

#### D- Pain level after 5 days of care

With a range of 3 to 4, the scores stabilized at an average of 3.8, demonstrating both the effectiveness of the pain management techniques employed and notable stabilization and improvement.

The data demonstrated a discernible, steady decline in discomfort over time, as shown in Fig.1. All of the cases had scores between 7 and 8, with an average of 7.8, at the start of the period (day 1). With a score of 5.1 on the second day following the implementation of the measures, the reduction was clearly visible. This kept dropping until it hit 4.2 after 48 hours, then on day five it stabilized at 3.8.

This ongoing decline aligns with research demonstrating that early nursing interventions, continuity of care, and the methodical use of pain management techniques result in notable enhancements in patients' quality of life as well as a real and noticeable decrease in pain levels.



**Fig. 1.** Outcomes of Specialized Nursing Program

The steady decline in pain scores shows that nursing interventions, including giving patients deep breathing and relaxation exercises, administering medications precisely and on time, and creating a comfortable environment, were successful in managing pain [16].

Patients' good reaction to therapy is reflected in the figures, which indicate minor changes during the first few hours of care, which may be regarded as an initial response to the interventions, followed by a constant and stable response throughout time.

Lower pain levels let patients move more easily, use fewer potent analgesics, and postpone the need for further treatments, all of which lower complications and improve overall health outcomes [17].

### 3.2. Effect of Findings on Care Quality

The significance of nurse interventions in enhancing pain management is highlighted by this pattern of results. Nurses were able to swiftly and efficiently modify treatment regimens in response to patients' more mild pain reactions, which clearly improved the patients' condition stabilization. A clear picture of the success of nursing interventions can be obtained by using visual data and illustrations to continuously monitor the patient's progress. This allows for periodic evaluation of the effectiveness of interventions and updates treatment programs based on visual observations and timelines. The findings also show that using visual presentation approaches promotes ongoing recovery and improves the nursing team's comprehension of the condition [18].

## 4. Conclusion

In conclusion, the study's findings show how crucial nursing is to raising the standard of medical treatment, especially when it comes to surgical patients' pain management in Jordan. Effective nurse interventions significantly lower pain levels and improve patient comfort, which immediately speeds up recovery and enhances quality of life, according to the visual data and charts used as evaluation tools. The results demonstrate how well a non-statistical technique may track and evaluate care outcomes in a flexible and timely way. This promotes ongoing and long-lasting performance improvement by strengthening nurses' capacity to base judgments on visible, observable data.

The study also highlights the significance of the findings in assessing nursing performance since they allow for the monitoring of swift changes in patient circumstances and prompt responses to them, which improves the effectiveness of interventions and expedites their modifications when necessary. The results highlight the necessity of improving nurses' continuous training in the use of these tools and raising awareness of the value of integrating statistical data with visual results to give a more complete picture of the effectiveness and reaction of care given.

Accordingly, this study makes a significant addition to the healthcare industry, especially in the context of Jordan, emphasizing the value of depending on cutting-edge and straightforward evaluation instruments that help boost output and produce exceptional outcomes. As a result, nurse performance evaluation and pain management techniques become more reliable and have a deeper knowledge. In order to guarantee patient-centered care that produces the best health results, the study concludes by highlighting the necessity of investing in nursing education and skill development, as well as the use of adaptable and efficient assessment instruments.

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## References

- [1] Alnajar, M. K. (2021). Pain assessment and management in intensive care unit. *The Open Nursing Journal*, 15, 170–178.
- [2] Al-Qadire, M. (2014). Jordanian nurses' knowledge and attitude regarding pain management. *Pain Management Nursing*, 15(4), 778–786.
- [3] Alrusan, A. (2025). Assessment of knowledge and attitudes regarding acute pain management among Jordanian nurses. *Healthcare*, 13(20), 2570.

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- [4] Alzghoul, B. I. (2024). Patients' barriers to effective pain management in Jordanian hospitals. *Open Public Health Journal*, 17, Article e1874.
- [5] Daibes, M. (2011). "A pain that ruins mountains": A case study of factors influencing postoperative pain management in two Jordanian hospitals (PhD thesis). University of Warwick.
- [6] Massad, I. M., et al. (2013). Postoperative pain is undertreated: results from a local survey at Jordan University Hospital. *Eastern Mediterranean Health Journal*, 19(5), 415–422.
- [7] McCaffery, M., & Pasero, C. (1999). *Pain: Clinical manual* (2nd ed.).
- [8] Museu-type / guideline: Ferrell, B., & McCaffery, M. (2014). *Knowledge and Attitudes Survey Regarding Pain (KASRP)*.
- [9] Oliver, J., & American Society for Pain Management Nursing. (2012). *ASPMN position statements on pain management*.
- [10] Razeq, N. M. A. (2024). Nurses' attitudes concerning analgesia administration for pediatric pain (regional context). *Pain Management Nursing*, 25(2), 101–109.
- [11] Shoqirat, N. (2014). "Sleepless nights and sore operation site": Patients' experiences of nursing pain management after surgery in Jordan. *Pain Management Nursing*, 15(3), 609–618. doi:10.1016/j.pmn.2013.05.002
- [12] Shoqirat, N., Mahasneh, D., Al-Khawaldeh, O., & Al Hadid, L. (2019). Nurses' knowledge, attitudes, and barriers toward pain management among postoperative patients in Jordan. *Journal of PeriAnesthesia Nursing*, 34(2), 359–367. doi:10.1016/j.jopan.2018.05.012
- [13] Shoqirat, N., Mahasneh, D., Al-Khawaldeh, O., & Singh, C. (2019). Postoperative patients in Jordan: Pain prevalence, characteristics, beliefs, and satisfaction. *Pain Management Nursing*, 20(3), 239–244. doi:10.1016/j.pmn.2018.12.004
- [14] Smeland, A. H., Twycross, A., Lundeberg, S., & Rustøen, T. (2018). Nurses' knowledge, attitudes and clinical practice in pediatric postoperative pain management: Lessons for training. *Pain Management Nursing*, 19(6), 585–598.
- [15] Thomas, L. H., McColl, E., & Priest, J. (1996). Newcastle Satisfaction with Nursing Scales (NSNS): Instrument for assessing nursing care quality (measurement tool article). *Journal of Advanced Nursing*, 23(4), 754–761.
- [16] Turner, H. N., et al. (2023). Pain management and co-occurring substance use: Position and guidance for nursing practice.
- [17] World Health Organization. (2018). *WHO guidelines for the pharmacological and radiotherapeutic management of cancer pain in adults and adolescents*.
- [18] Youngcharoen, P., et al. (2023). Factors associated with nurses' pain-management practices in older surgical patients: A cross-sectional study (international insights useful for Jordanian context). *Nursing Open*, 10(1), 1281–1292.