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Managing anxiety and unrealistic expectations before surgery: The role of preoperative nursing education

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Abstract: Effective preoperative education can significantly reduce patient anxiety, promote realistic surgical expectations, and improve outcomes. This article explores evidence-based, nurse-led strategies that support surgical patients through multimodal education, communication, and psychosocial preparation. It discusses a case comparison that highlights disparities in patient experiences and underscores the importance of structured preoperative counseling.

Keywords: health literacy, multimodal communication, nursing interventions,

patient expectations, patient outcomes, preoperative education, surgical anxiety

Case scenario:

Two patients, Ms Johnson and Mr Smith, arrive for their preoperative appointments. Both patients are in their 50s, high school graduates, and actively engaged in their own health care. However, the quality and content of their preoperative education experiences differ significantly. Ms Johnson receives a

structured education session from a nurse that includes verbal explanations, printed materials, a video overview, and a guided discussion using the teach-back method to ensure understanding. With Ms Johnson's permission, the nurse also invited her spouse to participate in the session. Including her support person helped reinforce key education points and ensured that someone would be available to assist with postoperative needs at

home. Mr Smith, although equally open to learning, receives only a brief verbal explanation and is not provided with supplemental materials or the opportunity for deeper discussion. His family members were not involved in the education process, leaving them unprepared to support him following surgery. Despite similar personal characteristics and engagement levels, how might these differences in the delivery of preoperative counseling influence their surgical outcomes?

Introduction

Surgery is a significant life event that often causes anxiety in patients. Many patients approach surgery with unrealistic expectations, believing they will experience little to no pain or have a rapid return to normal activities. When reality does not align with these expectations, patients may experience increased distress, dissatisfaction, and poor adherence during recovery.¹ Preoperative nursing education plays a critical role in easing anxiety and ensuring that patients develop a realistic understanding of their surgical journey.²

This article explores evidence-based, nurse-led strategies that support surgical patients through multimodal education, communication, and psychosocial preparation. It discusses a case comparison that highlights disparities in patient

experiences and underscores the importance of structured preoperative counseling.

The impact of anxiety on surgical outcomes

Preoperative anxiety is common among surgical patients, affecting up to 60% of individuals awaiting their procedures.³ Anxiety can lead to physiologic stress responses, including increased heart rate, elevated blood pressure, and hormone fluctuations that may impair wound healing and immune function.³

Studies indicate that effective preoperative education can significantly reduce anxiety levels by addressing patient concerns, correcting misconceptions, and fostering a sense of readiness. When patients are informed about what to expect following their surgery, they exhibit higher adherence with recovery protocols and report greater satisfaction with their care.⁴ High levels of preoperative anxiety correlate with increased postoperative pain perception, prolonged hospital stays, and a greater need for pain medications in the immediate postoperative phase.⁵

Disparities in preoperative anxiety and education

Research highlights disparities in access to preoperative education, particularly among individuals with lower health literacy. Approximately 36% of United States adults

have basic or below-basic health literacy, making it difficult for them to understand complex medical instructions, including preoperative education.⁴ Patients with limited health literacy may experience higher levels of preoperative anxiety, poorer surgical outcomes, and increased complications due to misunderstanding medical instructions or failing to adhere to recovery protocols.⁴ Addressing these disparities through tailored education strategies can enhance patient comprehension and improve outcomes.

Evidence-based strategies to mitigate these barriers include simplifying medical language to a 5th- to 6th-grade reading level, incorporating visual aids such as diagrams or pictographs, and utilizing video education resources.⁶ Providing multimodal formats, including written, verbal, and audio-visual materials has also been shown to improve comprehension among patients with varying levels of literacy.⁴ These strategies collectively support equitable access to essential preoperative information, leading to improved patient preparedness and outcomes (see *Preoperative education strategies*).

Nursing implications: Establishing realistic postoperative expectations

One of the most significant contributors to postoperative distress is the gap between patient expectations and reality (see *Essential information to include in preoperative materials*). Common unrealistic expectations involve misconceptions about pain, the immediate recovery, and fear of complications. By setting realistic expectations, nurses can empower patients to approach their recovery with confidence and a sense of control over their care.

Pain misconceptions

Many patients believe they will experience little or no pain following

Preoperative education strategies⁴

- Multimodal delivery formats (eg, written handouts, diagrams, videos, demonstrations)
- Teach-back method (ask patients to repeat key information in their own words)
- Plain language and simplified vocabulary written at a 5th- to 6th-grade reading level
- Use of visual aids (eg, pictographs, illustrated instructions, wound care images)
- Inclusion of family/caregivers in education (with permission)
- Small, digestible content chunks presented over time to avoid information overload
- Verbal reinforcement and opportunities for questions
- Relaxation and anxiety-reduction techniques (eg, deep breathing, guided imagery)

surgery. When postoperative pain occurs, they may feel unprepared and struggle with pain management.¹ Preoperative education should include information about the typical range and duration of postoperative pain, realistic expectations for discomfort, and the rationale behind prescribed pain management strategies. Nurses can explain the concept of multimodal pain control, including the roles of medications (such as acetaminophen, nonsteroidal anti-inflammatory drugs, and opioids) and nonpharmacologic techniques (such as ice therapy, elevation, positioning, relaxation techniques, and early mobilization).⁶ Providing examples of normal versus concerning pain responses and emphasizing the importance of communicating pain intensity levels to health care professionals can further prepare patients and reduce anxiety related to pain management.

Immediate recovery expectations
Some patients assume they will resume normal activities within days. Without proper education, they may not anticipate mobility restrictions, wound care requirements, or fatigue.² Preoperative education should inform patients about the expected timeline for recovery, including typical activity restrictions during the first few days or weeks postsurgery. Nurses can provide information about the importance of gradual mobility, appropriate wound care practices, and common symptoms such as fatigue or discomfort that may persist for some time. An interdisciplinary care team, comprising physical therapists, occupational therapists, and wound care specialists, can be essential in supporting recovery. Introducing these team members during preoperative education can help patients understand the roles they play and promote smoother coordination of postoperative care. In some cases, patients

Essential information to include in preoperative materials⁴

- Timeline for recovery milestones and activity restrictions
- Expected pain intensity levels and pain management strategies (medications, ice, movement, etc)
- Manifestations of complications versus typical signs and symptoms (eg, swelling versus evidence of infection)
- Wound care procedures and when/how to contact the care team
- Instructions for medication use, ambulation, hygiene, and dietary considerations
- Follow-up care, discharge instructions, and contact information for questions or emergencies
- Explanation of surgical process, anesthesia, and what to expect on the day of surgery
- Availability of rehabilitation or home care services, if needed

may require a short-term stay in a rehabilitation facility or the support of home care services to ensure a safe and effective recovery. Discussing these possibilities preoperatively enables patients and families to plan ahead, reducing anxiety and facilitating timely transitions of care. Educational materials should also outline clear milestones for recovery, such as when to resume light walking, bathing, or work-related tasks, as well as indicators of when to seek medical follow-up. Family members may need to assist with mobility, transportation, wound care, or medication reminders. Discussing the natural variability in recovery rates among individuals can further help manage expectations and reduce frustration or anxiety during the postoperative period.⁴

Fear of complications

Patients often fear severe complications but may not understand the difference between typical postsurgical manifestations (such as swelling and discomfort) and warning signs that require immediate evaluation or intervention by the health care team.³

Effective nursing preoperative education strategies

Multimodal education strategies

Nurses should engage in clear, empathetic communication that

validates patient concerns while providing factual, evidence-based information. Sitting at eye level with the patient during these conversations can convey attentiveness and compassion, reinforcing a patient-centered approach. The teach-back method is a patient education technique used to confirm understanding by asking the patient to restate key information in their own words. Rather than simply asking, "Do you understand?", the nurse prompts the patient to explain how they will follow through on care instructions, which helps identify gaps in comprehension.

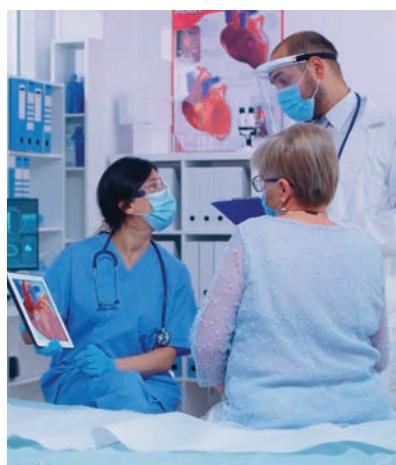
To perform teach-back effectively, nurses should use a conversational tone, avoid medical jargon, and frame the request as a check on the clarity of the instruction, not the patient's ability to learn. For example, a nurse might say, "I want to make sure I explained everything clearly. Can you tell me how you'll manage your pain when you get home?" If the patient cannot explain the information correctly, the nurse revisits the topic and tries again. This method improves patient understanding, retention, and confidence in managing postoperative care. Open-ended questions enable patients to express their fears, allowing nurses to tailor education to individual needs.¹

Different patients learn in different ways. A combination of verbal instructions, written materials, videos, and demonstrations enhances comprehension.⁵ Studies have shown that video-based education significantly reduces preoperative anxiety and improves postoperative adherence. Multimodal education is particularly effective for individuals with limited health literacy because it reinforces key concepts through multiple formats and helps bridge gaps in understanding that may arise from relying on a single method alone.⁴

Psychological preparation

Educating patients about multimodal pain control strategies helps prevent the misconception that they should experience no pain at all. Explaining the use of medications, ice therapy, elevation, and movement strategies can reduce fear and improve pain tolerance.⁶ Patients should also be informed about the option of using nerve blocks as part of multimodal analgesia. These regional anesthesia techniques can provide highly effective, long-lasting pain relief during the immediate postoperative period. However, patients must understand that the effects of nerve blocks will eventually wear off, and they should be prepared with a transition plan to manage pain once sensation returns. Providing clear expectations and strategies for managing breakthrough pain helps reduce anxiety and improves postoperative recovery.⁴

Relaxation techniques such as guided imagery, deep breathing exercises, and mindfulness practices can help alleviate anxiety. Some institutions offer preoperative orientation tours, allowing patients to become familiar with the surgical environment, which has been shown to decrease stress levels.⁴



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Family members and significant others often play a central role in supporting the patient throughout the surgical journey. With the patient's permission, involving these caregivers in preoperative education can improve understanding, reduce stress for both the patient and their support system, and ensure continuity of care at home. Educating family members about the expected postoperative needs, such as mobility assistance, medication administration, dietary changes, and evidence of complications, helps them prepare for their caregiving role. Including them in discussions using teach-back methods or offering written and visual materials tailored to caregivers can increase confidence and reduce anxiety. Additionally, involving caregivers in discharge planning and coordination with home health services or rehabilitation facilities promotes smoother transitions and better outcomes.⁶

Returning to the case scenario: Contrasting outcomes

Ms Johnson, having received comprehensive preoperative education, entered surgery with a clear understanding of what to expect. She followed postoperative mobility exercises, utilized ice therapy to reduce swelling, practiced deep breathing and relaxation techniques to manage anxiety, and effectively used her prescribed pain medications as part of a multimodal strategy. She was discharged on schedule without complications. Despite being just as engaged initially, Mr Smith did not receive the same level of preparation. As a result, he experienced significant postoperative distress. Unprepared for the pain and mobility restrictions, he hesitated to participate in early ambulation, did not use nonpharmacologic pain relief strategies, and relied heavily on opioids, which contributed to increased discomfort and a prolonged hospital stay. This contrast, despite similar patient engagement, demonstrates the pivotal role of structured preoperative counseling in influencing surgical outcomes.

Challenges and considerations in preoperative education

Despite its benefits, preoperative education faces several challenges. Nurses often have limited time to provide comprehensive education, requiring the use of structured, standardized education protocols. Patients with lower health literacy may struggle to understand medical terminology, underscoring the importance of using simplified language and visual aids.³ Additionally, some patients and their family members may feel overwhelmed or unwilling to engage in preoperative discussions, making it important to provide education in smaller, more digestible portions to improve retention and reduce stress.⁵ In such cases, preoperative education

should prioritize focused guidance that patients can easily understand and apply once surgery is complete. This may include practical demonstrations of early ambulation techniques, simplified instructions on wound care, visual tools for pain management strategies, and concise lists of postoperative warning signs and symptoms. Nurses can also offer resources or referrals to social workers for enhanced family support. These targeted teaching points help reduce cognitive overload before surgery while still preparing patients for essential aspects of recovery.⁵

Conclusion

Preoperative nursing education is a vital intervention that reduces patient anxiety and fosters realistic expectations for surgery and recovery. Nurses can significantly

enhance surgical outcomes and patient satisfaction by implementing patient-centered communication, multimodal education strategies, and psychological preparation techniques. Hospitals and surgical centers should prioritize structured preoperative education programs to ensure every patient enters surgery feeling informed, prepared, and empowered. Nursing leaders and health policymakers should advocate for standardized education initiatives, allocate resources for staff training, and integrate preoperative counseling into routine surgical care to enhance patient outcomes.⁴ ■

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