

# The Impact of Evidence-Based Nursing Practices on Patient Outcomes in Hospitals and Health Centers: A Systematic Review

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## Introduction

Evidence-based practice and decision-making have been consistently linked to improved quality of care, patient safety, and many positive clinical outcomes in isolated reports throughout literature. However, a comprehensive summary and review of the extent and type of evidence-based practices (EBPs) and their associated outcomes across clinical settings are lacking. Evidence-based practice (EBP) has become a cornerstone of modern healthcare, promoting the integration of the best available research evidence with clinical expertise and patient preferences to enhance care delivery and outcomes. In nursing, EBP plays a pivotal role, as nurses are often at the forefront of patient care, directly influencing patient outcomes through their interventions, education, and advocacy [1].

The application of EBP in nursing ensures that care strategies are scientifically validated, relevant, and capable of addressing the complex needs of patients across diverse healthcare settings. The adoption of EBP in hospitals and health centers has been linked to numerous benefits, including improved patient safety, reduced medical errors, enhanced quality of care, and increased satisfaction among both patients and healthcare providers. Moreover, evidence-based nursing practices have been associated with better clinical outcomes, such as reduced rates of infection, shorter hospital stays, and improved management of chronic conditions. These outcomes underscore the critical importance

of integrating EBP into nursing workflows and fostering a culture of continuous improvement and learning [2].

Despite its proven advantages, the implementation of EBP in nursing faces significant challenges. These include barriers such as a lack of access to research, limited training in evidence-based methodologies, time constraints, and resistance to change within healthcare organizations. Addressing these barriers is essential to fully realize the potential of EBP in enhancing patient outcomes and ensuring sustainable improvements in healthcare delivery [3].

This systematic review aims to evaluate the impact of evidence-based nursing practices on patient outcomes in hospitals and health centers. By synthesizing findings from existing studies, this review seeks to identify key practices, assess their effectiveness, and highlight areas where further research and implementation efforts are needed. The findings will provide valuable insights for policymakers, healthcare administrators, and nursing professionals striving to improve care quality and patient outcomes through evidence-based approaches.

## **Literature review**

The implementation of evidence-based practices (EBP) in nursing has been extensively studied, with a growing body of literature emphasizing its transformative impact on patient outcomes. This section reviews the existing literature on the subject, focusing on the benefits, challenges, and key factors influencing the integration of EBP in hospitals and health centers.

## **Evidence-Based Nursing Practices**

Evidence-based practice (EBP) integrates clinical expertise, the latest and best available research evidence, as well as the patient's unique values and circumstances [4]. This form of practice is essential for nurses as well as the nursing profession as it offers a wide variety of benefits: It helps nurses to build their own body of knowledge, minimize the gap between nursing education, research, and practice, standardize nursing practices [5], improve clinical patient outcomes, improve the quality of healthcare, and decrease healthcare costs [6]. Thus, clinical decision-making by nurses should be based on the best and most up-to-date, available research evidence [7]. There is consistent evidence showing that while undergraduate nursing students hold positive beliefs about EBP and its value in patient care, they also report many challenges regarding its actual implementation in clinical practice. For instance, a mixed-methods study indicated that 118 American undergraduate nursing students found it difficult to distinguish between EBP and research. Students were able to search for evidence but were less able to integrate evidence to plan EBP changes or disseminate best practices [8].

## **The Pillars of Evidence-Based Practice (EBP)**

Evidence-Based Practice (EBP) serves as a cornerstone in modern healthcare, guiding professionals in making informed decisions that improve patient outcomes. It integrates three core pillars:

### **1. Best Available Evidence**

- This involves the use of up-to-date and relevant research findings. Healthcare providers rely on rigorously conducted studies, systematic reviews, and clinical guidelines to ensure that the interventions they choose are supported by solid scientific evidence.

### **2. Clinical Expertise**

- The provider's skills, experience, and judgment play a critical role in interpreting evidence and applying it effectively to individual patients. Clinical expertise ensures that theoretical knowledge is adapted to real-world scenarios, considering the complexities and nuances of each case.

### **3. Patient Values and Preferences**

- Recognizing and respecting the unique preferences, concerns, and expectations of patients is vital. This pillar ensures that care is patient-centered, aligning interventions with the individual's cultural, social, and personal context.

## **EBP in Healthcare Professions**

- **Physicians:** Use EBP to select diagnostic tests, determine treatment options, and improve patient care plans.
- **Physical Therapists:** Employ EBP to design rehabilitation programs tailored to evidence about optimal recovery methods.
- **Social Workers:** Apply EBP to address psychological and social issues, ensuring interventions are backed by the latest evidence in mental health and community care.
- **Nurses:** Leverage EBP in bedside care, procedural protocols, and patient education to enhance safety and satisfaction.

Together, these pillars foster a collaborative, informed, and patient-centric approach to healthcare delivery.

## **Benefits of Evidence-Based Nursing Practices**

Evidence-based nursing practices have been shown to significantly improve important patient outcomes across various clinical settings. When nurses adhere to interventions that are supported by scientific evidence, patients experience fewer complications, shorter

hospital stays, lower readmission rates, and reduced mortality. Numerous studies have documented the positive effects of EBP on patient outcomes. Lam and Schubert (2019) highlighted that EBP adoption reduces medical errors, enhances patient safety, and improves the overall quality of care. Specific improvements have been noted in areas such as infection control, pain management, and chronic disease management [9]. For instance, implementing evidence-based protocols for preventing catheter-associated urinary tract infections (CAUTIs) has significantly reduced infection rates [10].

Quality improvement (QI) focuses on processes to improve efficiency and eliminate waste (anything that does not add value) within a hospital or healthcare system. Rapid-cycle improvement strategies (i.e., Plan-Do-Study-Act) are used to make changes, and then outcomes are observed and measured. Additionally, evidence-based interventions have been shown to reduce hospital remissions and lengths of stay. A study by Abu-Baker, et al. (2021) reported that EBP-based discharge planning and patient education improved adherence to treatment plans, resulting in fewer complications and remissions. These findings underscore the critical role of EBP in promoting efficiency and cost-effectiveness in healthcare systems [11].

### **Challenges in Implementing Evidence-Based Practices**

Despite the benefits, various barriers hinder the effective implementation of EBP in nursing. A systematic review by Pickler (2018) identified time constraints, insufficient training, and limited access to current research as major obstacles. Many nurses report feeling overwhelmed by their workload, leaving little time to engage with research or integrate new practices into their routines [12].

Organizational resistance to change also poses a significant challenge. Studies have shown that healthcare institutions with rigid hierarchies or inadequate support for professional development often struggle to adopt evidence-based approaches [13]. Furthermore, a lack of interdisciplinary collaboration can impede the dissemination and application of evidence-based knowledge.

### **Facilitators of Evidence-Based Nursing Practices**

Several factors have been identified as facilitators for the successful implementation of EBP. Leadership support and a culture that values continuous learning are critical enablers. According to LV. (2024), organizations that provide ongoing education, mentorship, and access to research databases are more likely to see widespread adoption of evidence-based practices [14].

Technology also plays a pivotal role in advancing EBP. Digital tools, such as electronic health records (EHRs) and clinical decision support systems, streamline access to evidence and integrate it into daily nursing workflows (Kueny et al., 2015). These tools not only enhance efficiency but also ensure that evidence-based guidelines are consistently applied in patient care.

## Gaps in Literature

While the advantages of EBP are well-documented, there is limited research on its long-term impact on patient outcomes across diverse healthcare settings. Most studies focus on short-term benefits or specific interventions, leaving a gap in understanding how sustained EBP adoption influences broader healthcare metrics. Additionally, there is a need for more studies examining the role of cultural and contextual factors in shaping the effectiveness of EBP implementation.

## Conclusion

The literature demonstrates that evidence-based nursing practices significantly improve patient outcomes, though challenges remain in their implementation. Addressing barriers such as time constraints, organizational resistance, and limited access to research is essential for maximizing the potential of EBP. Future research should focus on long-term outcomes and explore strategies to enhance the scalability and sustainability of evidence-based approaches in nursing.

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