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REVIEW ARTICLE

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## STRATEGIES FOR IMPROVING NURSING CARE QUALITY: A COMPREHENSIVE REVIEW

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### ABSTRACT

This comprehensive review examines various strategies aimed at enhancing the quality of nursing care. It synthesizes evidence-based practices, quality improvement initiatives, and innovative approaches to ensure high standards of patient care. The review identifies key factors influencing nursing care quality, including staffing levels, education and training, organizational culture, and technology use. It explores evidence-based practices such as clinical guidelines, regular training, and decision-making tools. Quality improvement initiatives like establishing improvement teams, using models such as Plan-Do-Study-Act (PDSA), and conducting audits are discussed. The review also highlights patient-centered care approaches, including enhanced communication and personalized care, and the role of technology and innovation, such as electronic health records and telehealth services. Several case studies illustrate successful implementations of these strategies. The review addresses challenges like staff resistance, resource constraints, and sustainability, providing recommendations for policy, organizational strategies, and future research. This comprehensive review emphasizes the importance of ongoing efforts to improve nursing care quality and offers valuable insights for nursing practice, healthcare organizations, and policymakers.

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## INTRODUCTION

Quality in nursing care is a fundamental aspect of healthcare that directly impacts patient outcomes, satisfaction, and overall healthcare costs. High-quality nursing care is essential for ensuring patient safety, effective treatment, and positive patient experiences. As healthcare systems face increasing pressures from rising costs, aging populations, and complex medical conditions, the need for continuous improvement in nursing care quality has never been more critical. The significance of quality nursing care can be seen in its ability to reduce adverse events, hospital readmissions, and healthcare-associated infections (HAIs). Studies have shown that improved nursing care quality is associated with better patient outcomes, including lower mortality rates, reduced length of hospital stays, and higher levels of patient satisfaction (Aiken *et al.*, 2014). Moreover, quality nursing care contributes to the efficient use of resources, thereby reducing healthcare costs and enhancing the sustainability of healthcare systems (Needleman *et al.*, 2011). The primary objective of this review is to explore and synthesize existing literature on strategies for improving nursing care quality. By examining evidence-based practices, quality improvement initiatives, and innovative approaches, this review aims to provide a comprehensive understanding of the key factors that influence nursing care quality and offer practical recommendations for healthcare organizations.

This review encompasses various aspects of nursing care quality improvement, including evidence-based practices, quality improvement models, patient-centered care approaches, and the integration of technology and innovation. It also addresses the challenges and barriers to implementing these strategies and provides recommendations for overcoming them.

## LITERATURE REVIEW

**Definition and Components of Nursing Care Quality:** Quality in nursing care is a complex, multidimensional concept that goes beyond the technical aspects of medical interventions to include interpersonal behaviors, efficiency, and organizational culture. According to the Institute of Medicine (IOM, 2001), healthcare quality is defined by several key dimensions: safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity. These dimensions are directly applicable to nursing care, as nurses play a critical role in ensuring patient safety, providing effective and timely care, and maintaining the efficient use of healthcare resources (Institute of Medicine, 2001).

**Factors Influencing Nursing Care Quality:** Research has consistently shown that nurse staffing levels and the nurse-to-patient ratios are crucial factors affecting the quality of nursing care. A study by Aiken *et al.* (2014) revealed a clear link between higher nurse

staffing levels and lower patient mortality, fewer adverse outcomes, and better overall patient satisfaction. Additionally, Blegen *et al.* (2011) found that hospitals with better-staffed units had significantly fewer cases of patient falls, infections, and medication errors. The education and ongoing professional development of nurses are also vital for maintaining high-quality care. Higher levels of nursing education are associated with better patient outcomes. A study by Kutney-Lee *et al.* (2013) demonstrated that hospitals with a higher proportion of nurses educated at the baccalaureate level or higher had lower readmission rates and shorter lengths of stay. Organizational culture and leadership within healthcare settings significantly influence the quality of nursing care. Effective leadership is linked to improved patient outcomes, increased job satisfaction among nurses, and a greater adherence to best practices in patient care (Wong *et al.*, 2013). Moreover, a supportive and open organizational culture fosters an environment where continuous quality improvement is a shared goal among all staff members. The use of technology and information systems in healthcare can enhance the quality of nursing care by improving the accuracy of patient records, facilitating better communication among healthcare team members, and providing tools for monitoring patient health and treatment progress. Electronic Health Records (EHRs) are a prime example of how technology can improve nursing efficiency and patient care outcomes (McGonigle & Mastrian, 2018). The application of evidence-based practices (EBPs) in nursing is critical for ensuring that care delivery is based on the best available evidence. EBPs involve the integration of clinical expertise, patient values, and the best research evidence into the decision-making process for patient care. Rycroft-Malone *et al.* (2012) discuss the challenges and strategies for implementing EBPs in nursing, highlighting the importance of organizational support and the need for effective knowledge translation strategies to ensure that research findings are effectively incorporated into clinical practice. Quality improvement (QI) initiatives are systematic, continuous actions that lead to measurable improvements in healthcare services and the health status of targeted patient groups. The Plan-Do-Study-Act (PDSA) cycle is one of the most widely used frameworks for QI in healthcare, providing a methodical approach to testing changes in the real-world setting, which can then be adjusted and expanded to broader patient populations (Langley *et al.*, 2009).

**Table 1. Key Components of Nursing Care Quality**

Component	Description
Patient Safety	Measures to prevent harm to patients during the course of their care.
Effectiveness	Providing services based on scientific knowledge to all who could benefit.
Patient-Centeredness	Providing care that is respectful of, and responsive to, individual patient preferences, needs, and values.
Timeliness	Reducing waits and sometimes harmful delays for both those who receive and those who give care.
Efficiency	Avoiding waste, including waste of equipment, supplies, ideas, and energy.
Equity	Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.

This literature review demonstrates the multifaceted nature of nursing care quality, influenced by factors such as staffing, education, organizational culture, and the use of technology. It underscores the importance of employing evidence-based practices and engaging in continuous quality improvement initiatives to enhance the standard of care provided to patients. The research highlights that improvements in nursing care quality can lead to better patient outcomes, more efficient use of resources, and higher patient satisfaction.

## Strategies for Improving Nursing Care Quality

### Evidence-Based Practices

**Implementation of Clinical Guidelines and Protocols:** Clinical guidelines and protocols are essential tools for standardizing care and ensuring that nursing practices are based on the best available evidence. Implementing these guidelines helps reduce variations in

care, improve patient outcomes, and enhance overall care quality. According to Woolf *et al.* (1999), clinical guidelines provide a systematic approach to managing patient care, which can lead to improved health outcomes and more efficient use of resources.

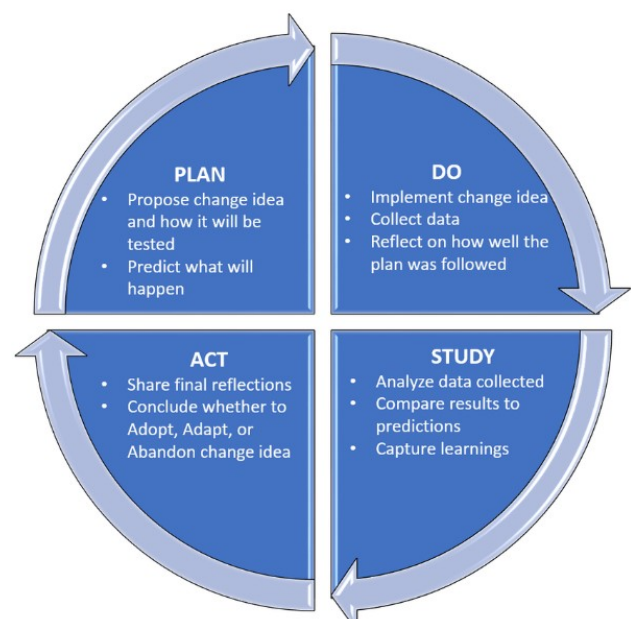
**Regular Training and Continuing Education:** Ongoing education and training are critical for maintaining high standards of nursing care. Continuous professional development ensures that nurses stay updated with the latest medical knowledge, techniques, and technologies. Studies have shown that regular training programs can significantly enhance nurses' competencies and confidence, leading to better patient care (Ferguson, 2015). Moreover, specialized training in areas such as wound care, pain management, and palliative care can improve specific aspects of nursing care quality.

**Utilization of Evidence-Based Decision-Making Tools:** Evidence-based decision-making tools, such as clinical decision support systems (CDSS), assist nurses in making informed decisions at the point of care. These tools integrate patient data with evidence-based guidelines to provide recommendations for treatment and care. A study by Hunt *et al.* (2012) demonstrated that CDSS could improve nursing care by reducing medication errors, enhancing diagnostic accuracy, and facilitating the delivery of personalized care.

### Quality Improvement Initiatives

**Establishing Quality Improvement Teams and Committees:** Quality improvement (QI) teams and committees play a pivotal role in fostering a culture of continuous improvement within healthcare organizations. These teams, often comprising nurses, physicians, and other healthcare professionals, are tasked with identifying areas for improvement, developing and implementing QI initiatives, and monitoring their effectiveness. According to Batalden and Davidoff (2007), multidisciplinary QI teams can drive significant improvements in patient care by leveraging diverse perspectives and expertise.

**Using Quality Improvement Models Like Plan-Do-Study-Act (PDSA):** The Plan-Do-Study-Act (PDSA) cycle is a widely used QI model that provides a structured framework for testing and implementing changes in clinical practice. The PDSA cycle involves four steps: planning the change, implementing it, studying the results, and acting on what has been learned. This iterative process allows healthcare teams to make incremental improvements and build on successes over time (Langley *et al.*, 2009).



**Figure 1. Plan-Do-Study-Act (PDSA) Cycle (Langley *et al.*, 2009) - Monitoring and Evaluation Through Audits and Feedback Loops**

Regular audits and feedback loops are essential components of any QI initiative. Audits help identify gaps in care and areas for improvement, while feedback loops ensure that staff are informed about their performance and the outcomes of QI efforts. A study by Ivers *et al.* (2012) found that audit and feedback mechanisms can lead to significant improvements in clinical practice by promoting accountability and encouraging adherence to best practices.

### Patient-Centered Care Approaches

**Enhancing Communication Between Nurses and Patients:** Effective communication is a cornerstone of patient-centered care. Nurses must be able to communicate clearly and empathetically with patients to understand their needs, preferences, and concerns. Improved communication can lead to better patient satisfaction, adherence to treatment plans, and overall health outcomes (Epstein & Street, 2011). Training programs focused on communication skills, such as active listening and motivational interviewing, can help nurses enhance their interactions with patients.

**Involving Patients in Care Planning and Decision-Making:** Patient involvement in care planning and decision-making is a critical aspect of patient-centered care. By actively involving patients in their care, nurses can ensure that treatment plans align with patients' values and preferences, leading to more personalized and effective care. Research has shown that patient involvement can improve health outcomes, increase patient satisfaction, and reduce healthcare costs (Coulter, 2012).

**Providing Personalized Care Tailored to Individual Patient Needs:** Personalized care involves tailoring healthcare services to meet the unique needs and preferences of each patient. This approach recognizes that patients have different backgrounds, experiences, and health conditions, and that a one-size-fits-all approach to care is often inadequate. Personalized care can improve patient outcomes and satisfaction by addressing the specific needs of each patient (Mulley, Trimble, & Elwyn, 2012).

### Technology and Innovation

**Adoption of Electronic Health Records (EHRs) and Other Digital Tools:** The adoption of electronic health records (EHRs) and other digital tools can significantly enhance the quality of nursing care. EHRs provide a comprehensive and accurate record of patient information, facilitating better communication and coordination among healthcare providers. They also support the implementation of evidence-based practices by integrating clinical guidelines and decision support tools. A study by Jones *et al.* (2014) found that EHRs could improve the quality of care by reducing medication errors, improving documentation accuracy, and enhancing overall care coordination.

**Implementing Telehealth Services for Remote Patient Care:** Telehealth services offer a valuable means of providing remote patient care, especially in underserved or rural areas. By enabling nurses to monitor patients' health and provide consultations remotely, telehealth can improve access to care, enhance patient outcomes, and reduce healthcare costs (Dorsey & Topol, 2016). Additionally, telehealth can support chronic disease management by allowing for continuous monitoring and timely interventions.

**Utilizing Data Analytics to Identify and Address Quality Gaps:** Data analytics can play a crucial role in identifying and addressing quality gaps in nursing care. By analyzing large volumes of patient data, healthcare organizations can uncover patterns and trends that indicate areas for improvement. For example, predictive analytics can help identify patients at risk of adverse outcomes, allowing for early interventions (Raghupathi & Raghupathi, 2014). Moreover, data-driven insights can inform the development and implementation of targeted QI initiatives. Implementing a combination of evidence-based practices, quality improvement initiatives, patient-centered care approaches, and technological innovations can significantly enhance

the quality of nursing care. These strategies, supported by a culture of continuous improvement and strong leadership, can lead to better patient outcomes, higher patient satisfaction, and more efficient use of healthcare resources. By continuously striving to improve nursing care quality, healthcare organizations can ensure that they provide the best possible care to their patients.

## CASE STUDIES

### Case Study 1: Successful Implementation of a Nurse-Led Quality Improvement Project

**Background:** A community hospital in the Midwest faced high rates of patient falls, which significantly impacted patient safety and satisfaction. The hospital's nursing leadership decided to implement a nurse-led quality improvement (QI) project to address this issue.

**Intervention:** The QI project utilized the Plan-Do-Study-Act (PDSA) cycle to develop and test interventions aimed at reducing patient falls. The team conducted a thorough analysis of fall incidents, identifying common factors such as time of day, patient mobility issues, and environmental hazards. Based on these findings, the team implemented several targeted interventions, including:

- Regular fall risk assessments for all patients upon admission and daily during their stay.
- Enhanced staff training on fall prevention strategies.
- Installation of bed alarms and non-slip flooring in high-risk areas.
- Increased supervision and assistance for patients identified as high risk for falls.

**Outcomes:** Over a six-month period, the hospital observed a significant reduction in the number of patient falls, from an average of 15 falls per month to just five. Patient satisfaction scores also improved, particularly in areas related to safety and care quality. The success of this project demonstrated the effectiveness of nurse-led QI initiatives in improving patient outcomes and safety.

### Case Study 2: Impact of Technology Integration on Nursing Care Quality

**Background:** A large urban hospital aimed to enhance nursing care quality by integrating electronic health records (EHRs) and other digital tools into their daily operations. Prior to this intervention, the hospital relied on paper-based records, leading to issues with data accuracy, communication, and coordination.

**Intervention:** The hospital implemented a comprehensive EHR system that included features such as computerized provider order entry (CPOE), clinical decision support systems (CDSS), and electronic medication administration records (eMAR). The integration process involved:

- Extensive training programs for all nursing staff to ensure proficiency in using the new EHR system.
- Development of standardized workflows to streamline documentation and improve efficiency.
- Continuous support and troubleshooting to address any technical issues and improve user experience.

**Outcomes:** Within a year of implementation, the hospital reported several positive outcomes:

- Reduction in medication errors by 35%, attributed to the use of CPOE and eMAR.
- Improved accuracy and completeness of patient records, leading to better clinical decision-making and care coordination.

- Enhanced nurse satisfaction and efficiency, as the EHR system reduced the time spent on documentation and allowed more time for direct patient care.

### Case Study 3: Outcomes of Patient-Centered Care Initiatives in a Healthcare Setting

**Background:** A regional healthcare facility sought to improve patient outcomes and satisfaction by implementing patient-centered care (PCC) initiatives. The facility recognized the importance of involving patients in their own care and ensuring that care plans were tailored to individual needs.

**Intervention:** The PCC initiatives included several key components:

- Training programs for nursing staff on effective communication skills, such as active listening and empathy.
- Development of individualized care plans that involved patients and their families in decision-making processes.
- Regular patient feedback sessions to gather insights and make necessary adjustments to care practices.

**Outcomes:** After implementing these initiatives, the facility observed notable improvements:

- Patient satisfaction scores increased significantly, particularly in areas related to communication and involvement in care decisions.
- Better clinical outcomes, including reduced readmission rates and shorter lengths of stay, were observed among patients receiving PCC.
- Enhanced job satisfaction and morale among nursing staff, as they felt more empowered and engaged in their work.

**Table 2. Outcomes of Patient-Centered Care Initiatives**

Outcome	Measurement Indicator	Improvement Percentage
Patient Satisfaction	Patient satisfaction scores	+20%
Health Outcomes	Readmission rates	-15%
Length of Stay	Average length of hospital stay	-10%
Nurse Job Satisfaction	Job satisfaction survey results	+25%

### Challenges and Barriers

**Staff Resistance:** One of the most significant challenges in improving nursing care quality is resistance to change among nursing staff. Nurses may be hesitant to adopt new practices, technologies, or protocols due to a variety of reasons, including fear of the unknown, comfort with existing routines, and skepticism about the efficacy of new methods. This resistance can hinder the implementation of quality improvement (QI) initiatives and the adoption of evidence-based practices (EBPs) (Kotter, 1996). Overcoming resistance requires effective change management strategies. Leadership plays a crucial role in fostering a culture of openness and continuous improvement. Engaging staff in the planning and implementation phases of QI initiatives can also help mitigate resistance. Providing adequate training, addressing concerns, and demonstrating the benefits of new practices through pilot programs and success stories can facilitate smoother transitions (Kotter, 1996).

**Resource Constraints:** Resource constraints, such as inadequate staffing levels and limited financial resources, pose significant barriers to improving nursing care quality. Understaffed units lead to increased workloads for nurses, resulting in burnout, job dissatisfaction, and compromised patient care. Financial constraints can limit the availability of essential resources, including training programs, technological advancements, and necessary medical supplies (Needleman et al., 2011). To address these challenges, healthcare organizations need to prioritize resource allocation

effectively. Advocating for increased funding and staffing support from policymakers and stakeholders is essential. Additionally, optimizing existing resources through efficient scheduling, task delegation, and leveraging technology to streamline operations can alleviate some of the burdens associated with resource constraints (Needleman et al., 2011).

**Sustainability of Quality Improvement Efforts:** Ensuring the sustainability of QI initiatives is another significant challenge. Many QI projects show initial success but fail to maintain improvements over the long term. Factors contributing to this include lack of ongoing support, insufficient monitoring, and failure to integrate changes into the organizational culture (Lukas et al., 2007). To sustain improvements, it is crucial to embed QI processes into the organizational culture. Continuous monitoring, regular audits, and feedback loops are essential to maintaining high standards of care. Establishing dedicated QI teams that focus on long-term goals and providing continuous education and support to staff can help sustain the momentum of improvement efforts. Additionally, leveraging data analytics to track progress and identify areas needing further improvement can ensure that QI initiatives remain effective over time (Lukas et al., 2007).

**Technological Challenges:** The integration of technology, such as electronic health records (EHRs) and clinical decision support systems (CDSS), presents challenges related to usability and interoperability. Nurses may struggle with the complexity of new systems, leading to frustration and decreased efficiency. Moreover, issues with interoperability can hinder seamless communication and data sharing between different healthcare systems (McGonigle & Mastrian, 2018). To address these challenges, healthcare organizations should invest in user-friendly technology and provide comprehensive training and support for nursing staff. Ensuring that systems are interoperable and can communicate effectively with other healthcare technologies is crucial. Continuous feedback from nurses on the usability of these systems can help identify areas for improvement and enhance overall integration (McGonigle & Mastrian, 2018).

**Organizational Culture and Leadership:** A lack of supportive organizational culture and leadership can impede QI efforts. When leadership does not prioritize quality improvement or fails to support staff in these endeavors, it becomes challenging to create a culture of continuous improvement. This can lead to disengagement and lack of motivation among nursing staff (Wong et al., 2013). Effective leadership is essential for fostering a culture of continuous improvement. Leaders must demonstrate a commitment to quality, support staff through training and resources, and encourage open communication and feedback. Creating a shared vision for quality improvement and recognizing and rewarding staff contributions can also help build a positive organizational culture that supports ongoing improvement efforts (Wong et al., 2013). Addressing the challenges and barriers to improving nursing care quality requires a multifaceted approach that includes effective change management, resource optimization, sustained commitment to QI efforts, technological integration, and strong leadership. By tackling these challenges head-on and implementing strategies to overcome them, healthcare organizations can enhance the quality of nursing care, leading to better patient outcomes and increased satisfaction among both patients and nursing staff.

## RECOMMENDATIONS

**Policy Recommendations:** Healthcare policymakers should prioritize policies that ensure adequate nurse staffing levels. Research consistently shows that higher nurse-to-patient ratios lead to better patient outcomes, reduced mortality rates, and improved nurse satisfaction (Aiken et al., 2014). Governments and healthcare organizations should establish and enforce minimum staffing standards to maintain high-quality care and prevent nurse burnout. Policymakers and healthcare administrators should invest in

continuing education and professional development programs for nurses. Ongoing training ensures that nurses stay updated with the latest medical knowledge, techniques, and technologies, which is crucial for maintaining high standards of care (Ferguson, 2015). Financial incentives, scholarships, and grants can support nurses in pursuing advanced education and specialized training. Encouraging the adoption of electronic health records (EHRs), clinical decision support systems (CDSS), and telehealth services can significantly enhance the quality of nursing care. Policymakers should provide funding and technical support to healthcare facilities to implement and maintain these technologies. Additionally, setting standards for interoperability can ensure seamless communication and data sharing between different healthcare systems (McGonigle & Mastrian, 2018).

**Organizational Strategies:** Healthcare organizations should cultivate a culture of continuous improvement by emphasizing the importance of quality care and patient safety. Leadership should demonstrate a commitment to quality improvement (QI) efforts, support staff through training and resources, and encourage open communication and feedback. Recognizing and rewarding staff contributions to QI initiatives can also help build a positive organizational culture (Wong *et al.*, 2013). Forming multidisciplinary QI teams that include nurses, physicians, and other healthcare professionals can drive significant improvements in patient care. These teams can identify areas for improvement, develop and implement QI initiatives, and monitor their effectiveness. Using quality improvement models like Plan-Do-Study-Act (PDSA) can provide a structured framework for testing and implementing changes in clinical practice (Langley *et al.*, 2009). Effective communication and collaboration among healthcare team members are essential for improving nursing care quality. Healthcare organizations should implement strategies to enhance communication, such as regular team meetings, interdisciplinary rounds, and the use of digital communication tools. Training programs focused on communication skills can also help nurses interact more effectively with patients and other healthcare providers (Epstein & Street, 2011).

**Future Research:** Future research should focus on investigating the long-term impact of QI initiatives on patient outcomes, nurse satisfaction, and healthcare costs. Longitudinal studies can provide valuable insights into the sustainability of QI efforts and identify factors that contribute to their success or failure (Lukas *et al.*, 2007). Research should explore the potential of emerging technologies, such as artificial intelligence (AI), machine learning, and advanced data analytics, in improving nursing care quality. These technologies can offer innovative solutions for predicting patient outcomes, personalizing care, and optimizing resource allocation (Raghupathi & Raghupathi, 2014). Further studies are needed to assess the effectiveness of patient-centered care (PCC) approaches in diverse healthcare settings. Research should examine how PCC impacts patient outcomes, satisfaction, and engagement, and identify best practices for implementing PCC in various clinical environments (Coulter, 2012). Implementing these recommendations can significantly enhance the quality of nursing care. Policymakers, healthcare organizations, and researchers must collaborate to address the challenges and barriers to improving nursing care quality. By prioritizing adequate staffing, investing in education and technology, fostering a culture of continuous improvement, and conducting ongoing research, healthcare systems can ensure that nurses are equipped to provide the highest standard of care to their patients.

## CONCLUSION

Improving nursing care quality is essential for achieving better patient outcomes, enhancing patient satisfaction, and ensuring the efficient use of healthcare resources. This comprehensive review has explored various strategies for enhancing nursing care quality, including evidence-based practices, quality improvement (QI) initiatives, patient-centered care approaches, and the integration of technology and innovation. Key factors influencing nursing care quality include adequate staffing levels, continuous education and training, supportive organizational culture and leadership, and the effective use

of technology. Implementing clinical guidelines and protocols, providing regular training and continuing education, and utilizing evidence-based decision-making tools are critical for ensuring that nursing practices are grounded in the best available evidence. Establishing multidisciplinary QI teams, using models like Plan-Do-Study-Act (PDSA), and conducting regular audits and feedback loops are essential components of successful QI initiatives. Patient-centered care approaches, such as enhancing communication between nurses and patients, involving patients in care planning and decision-making, and providing personalized care tailored to individual needs, have been shown to improve patient outcomes and satisfaction. The adoption of electronic health records (EHRs) and other digital tools, the implementation of telehealth services, and the use of data analytics are crucial for leveraging technology to enhance nursing care quality. Despite these strategies, challenges and barriers such as staff resistance, resource constraints, technological integration issues, and maintaining the sustainability of QI efforts persist. Addressing these challenges requires effective change management, prioritization of resource allocation, fostering a culture of continuous improvement, and strong leadership. The recommendations provided in this review, including advocating for adequate staffing levels, investing in continuing education and professional development, promoting the adoption of technology, fostering a culture of continuous improvement, establishing QI teams, and enhancing communication and collaboration, offer practical steps for healthcare organizations to enhance nursing care quality. Future research should focus on the long-term impact of QI initiatives, the role of emerging technologies, and the effectiveness of patient-centered care approaches in diverse healthcare settings. By implementing these strategies and recommendations, healthcare organizations can ensure that nurses are equipped to provide the highest standard of care to their patients. Continuous efforts to improve nursing care quality will lead to better patient outcomes, higher patient satisfaction, and more efficient and sustainable healthcare systems.

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