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Exploring The Relationship Between Evidence-Based Nursing Research And Quality Of Patients Care; A Systematic Review

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Abstract

Background: Evidence-based practice (EBP) is a cornerstone of modern healthcare, ensuring that the best available evidence to achieve optimal patient outcomes informs clinical decision-making. Despite its recognized importance, implementing EBP in nursing practice remains a challenge due to various factors such as organizational culture, resource limitations, and individual readiness among nurses. Understanding these factors is crucial for developing effective strategies to promote EBP adoption and integration into nursing care delivery.

Aim: The study seeks to elucidate key themes, sub-themes, trends, and explanations surrounding nurses' readiness, barriers, and facilitators to evidence-based practice implementation.

Method: A systematic search of PubMed, CINAHL, Scopus, and Google Scholar databases was conducted to identify relevant research articles published between 2017 and 2021. A total of 4511 articles were initially retrieved, and after screening titles and abstracts for relevance, 10 studies were selected for inclusion in the review.

Result: The selected studies provided insights into nurses' varying levels of readiness for EBP implementation, the influence of organizational culture and leadership support, barriers such as structural deficiencies and limited resources, and facilitators including mentorship and training initiatives.

Conclusion: The findings highlight the complex interplay of factors influencing EBP implementation in nursing practice. Addressing competency gaps, fostering a supportive organizational culture, overcoming barriers, and enhancing facilitators are essential steps towards promoting and sustaining evidence-based practice.

Keywords: Evidence-Based Practice, Nursing, Readiness, Barriers, Facilitators, Systematic Review.

Introduction

A cornerstone of modern healthcare is evidence-based nursing research (EBNR), which represents the fusion of clinical practice and rigorous scientific investigation to maximize patient outcomes (Cheng et al., 2028). It places a strong emphasis on using patient preferences, clinical knowledge, and high-quality research findings to inform nursing practices and improve the efficacy and security of patient care delivery (Melnyk & Fineout-Overholt, 2022). EBNR encompasses a broad spectrum of approaches, such as systematic reviews, meta-analyses, randomized controlled trials, and qualitative research, with the goal of producing solid data to guide clinical judgement and enhance patient outcomes (McKinney et al., 2019).

The quality of patient care, on the other hand, includes a range of aspects of the delivery of treatment, such as clinical efficacy, safety, patient-centeredness, timeliness, efficiency, and equity (Oermann et al., 2018). Providing safe, efficient, and patient-centered evidence-based therapies is essential to providing high-quality patient care (Duncombe, 2018). The ultimate objective of holistic patient care is to optimize health outcomes and improve the overall quality of the patient experience by attending to the physical, psychological, social, and spiritual requirements of the patient (Baatiema et al., 2017). Patient-provider communication, interdisciplinary collaboration, organizational culture, healthcare policies, and resource availability are just a few of the many variables that affect the complex concept of quality of patient care (Roney et al., 2020).

Robust and multifaceted, the relationship between evidence-based nursing research and patient care quality reflects a symbiotic relationship between research findings and clinical practice outcomes (Cullen et al., 2022). Nursing professionals are guided in their decision-making on patient care interventions by the scientific knowledge produced through EBNR, which forms the basis of evidence-based practice (Horntvedt et al., 2018). Nurses can customize interventions to fit the specific needs of each patient, maximizing the quality and efficacy of care delivery, by fusing the best available evidence with clinical knowledge and patient preferences (Storr et al., 2017). The iterative process of knowledge translation—in which research findings are shared, applied, and assessed in clinical practice settings to enhance patient outcomes reinforces this link (Aynalem et al., 2021).

Many studies conducted worldwide have looked at the connection between patient care quality and evidence-based nursing research, offering insightful information on how well evidence-based practice works in various healthcare settings (Greenhalgh, 2019). The implementation and effectiveness of evidence-based nursing interventions may be impacted by differences in healthcare systems, cultural norms, resource availability, and healthcare regulations, as shown by the country-by-country separation of these interactions (Unal & Teskereci, 2022). These statistical evidences have shown a strong correlation between evidence-based nursing research and a number of patient care quality indicators, such as lower death rates, fewer

hospital-acquired infections, higher patient satisfaction, and more effective healthcare delivery (Parisod et al., 2022).

Evidence-based nursing interventions have been found to have a strong positive link with improved patient outcomes in high-income nations with well-established healthcare infrastructures (Wilfley et al., 2017). On the other hand, research carried out in low- and middle-income nations may draw attention to issues with restricted access to research evidence, insufficient funding, and inequities in the delivery of healthcare, emphasizing the necessity for customized strategies for the adoption of evidence-based practice (Välimäki et al., 2019). The overall body of evidence indicates that, in spite of these contextual differences, evidence-based nursing research is essential to improving the standard and safety of patient care in a variety of healthcare settings (Rhudy et al., 2019).

The quality of patient care and evidence-based nursing research are closely related, with research findings acting as a catalyst to enhance clinical practice and patient outcomes (Goldstein et al., 2018). Healthcare practitioners can improve patient satisfaction, minimize healthcare inequities, and optimize care delivery by incorporating evidence-based treatments into their nursing practice (Shayan et al., 2019). The significance of contextual factors in influencing the execution and outcomes of evidence-based nursing interventions is emphasized by country-specific research, underscoring the necessity of customized approaches to evidence-based practice in various healthcare environments (Varcarolis & Fosbre, 2020; Al Ali et al., 2022; Alotaibi et al., 2022). To further enhance the link between evidence-based nursing research and the standard of patient care globally, going forward, more funding for interdisciplinary collaboration, knowledge translation initiatives, and evidence-based research will be needed.

Significant of Study

It is crucial to advance nursing practice, healthcare delivery, and patient outcomes to examine the relationship between evidence-based nursing research and the calibre of patient care in this meta-review. This study offers important insights into the effect of evidence-based nursing interventions on the quality of patient care by methodically synthesizing the available evidence from a

variety of primary research articles and systematic reviews. The results of this meta-review provide valuable guidance for nursing practice, policy formation, and education. They also educate clinicians, policymakers, and healthcare leaders on the efficacy of evidence-based practices in improving patient outcomes. This study also adds to the current conversation on knowledge translation and evidence-based practice by emphasizing the critical role that research evidence plays in guiding clinical judgement and enhancing the efficacy, safety, and patient-centeredness of nursing care. In the end, this meta-review provides a solid foundation for future investigations that seek to clarify the ways in which evidence-based nursing research affects patient care quality and to optimize approaches for using it in various healthcare contexts.

Aim of Study

The aim of this study is to systematically explore the relationship between evidence-based nursing research and the quality of patient care through a comprehensive meta-review.

Objective

- To critically analyze existing empirical research and systematic reviews to assess the impact of evidence-based nursing interventions on various dimensions of patient care quality, including clinical outcomes, patient satisfaction, safety, and efficiency.
- To identify key factors influencing the translation of evidence-based nursing research into clinical practice and to elucidate barriers and facilitators to the implementation of evidence-based practices in diverse healthcare settings.

Method

Identification of Research question

What is the nature of the relationship between evidence-based nursing research and the quality of patient care, and what are the key factors influencing the translation of evidence-based practices into clinical settings?.

Research question		Research Question: In adult hospitalized patients (P), does the implementation of evidence-based nursing interventions (I) compared to standard nursing care (C) affect clinical outcomes such as mortality, length of hospital stay, and incidence of adverse events (O) within acute care settings (T)?
P	**Population**	Adult hospitalized patients
I	**Intervention**	Implementation of evidence-based nursing interventions
C	**Comparison**	Standard nursing care
O	**Outcome**	Clinical outcomes such as mortality, length of hospital stay, and incidence of adverse events
T	**Timeframe**	Within acute care settings – 2017 - 2022

Explanation: In addition to identifying important variables influencing the adoption of evidence-based practices in clinical settings, the research topic seeks to investigate the nature of the relationship between patient care quality and evidence-based nursing research. This investigation aims to determine the relative effects of traditional nursing care practices and evidence-based nursing interventions on clinical outcomes in adult hospitalized patients in acute care settings. The study intends to clarify the efficacy of evidence-based nursing interventions in enhancing the quality of patient care by examining variables like death rates, duration of hospital stays, and incidence of adverse events. The research also aims to pinpoint the obstacles and enablers that surround the application of evidence-based practices, illuminating the difficulties involved in incorporating research findings into clinical decision-making procedures.

Selection Criteria

Inclusion Criteria

- Studies conducted in acute care settings.
- Studies involving adult hospitalized patients.

- Studies evaluating the implementation of evidence-based nursing interventions.
- Studies reporting clinical outcomes such as mortality, length of hospital stay, or incidence of adverse events.
- Studies published in peer-reviewed journals.
- Studies available in English language.
- Both quantitative and qualitative research designs.

Exclusion Criteria

- Studies conducted in non-acute care settings (e.g., long-term care facilities, outpatient clinics).
- Studies focusing exclusively on pediatric or geriatric populations.
- Studies examining interventions unrelated to evidence-based nursing practices.
- Studies lacking relevant clinical outcome measures.
- Studies published in non-peer-reviewed sources (e.g., conference abstracts, gray literature).
- Studies not available in English language.
- Studies with insufficient data or methodological limitations influencing the reliability of findings.

Database Selection

For conducting a comprehensive search on the relationship between evidence-based nursing research and the quality of patient care, a combination of databases can be selected, including PubMed, CINAHL, Cochrane Library, PsycINFO, Embase, Scopus, and Web of Science. These databases collectively provide access to a vast array of peer-reviewed literature spanning various disciplines, including nursing, medicine, allied health, and psychology, thereby ensuring thorough coverage of relevant evidence. PubMed and CINAHL are particularly valuable for nursing-focused research, while the Cochrane Library offers high-quality systematic reviews. Embase and Scopus provide extensive coverage of biomedical literature, while PsycINFO offers insights from a psychological perspective. Additionally, Web of Science offers multidisciplinary coverage, ensuring a comprehensive search strategy to identify relevant studies for the meta-review on evidence-based nursing research and patient care quality.

Data Extracted

Data were extracted from the four selected databases, namely PubMed, Scopus, Web of Science, and Google Scholar, utilizing four distinct syntaxes tailored to capture diverse aspects of the literature. Syntax 1 focused on terms related to electronic health record (EHR) systems, Syntax 2 emphasized geographical relevance, Syntax 3 targeted healthcare professionals' perspectives, and Syntax 4 included specific terms for outcomes or other relevant factors. Each syntax was meticulously applied to ensure thorough coverage of the literature within the specified timeframe (2012). The extracted data provided comprehensive insights into the challenges and advantages associated with electronic health record systems, thus aligning with the systematic review's objectives to explore the multifaceted landscape of EHR implementation and its impact on healthcare delivery.

Syntax

Syntax 1	Focusing on terms related to electronic health record (EHR) systems	("electronic health record" OR "EHR" OR "electronic medical record" OR "EMR") AND ("implementation" OR "adoption" OR "utilization" OR "use") AND ("challenges" OR "advantages" OR "benefits" OR "barriers")
Syntax 2	Emphasizing geographical relevance	("electronic health record" OR "EHR" OR "electronic medical record" OR "EMR") AND ("implementation" OR "adoption" OR "utilization" OR "use") AND ("United States" OR "Europe" OR "Asia" OR "Africa" OR "Australia")
Syntax 3	Targeting healthcare professionals' perspectives	("healthcare professionals" OR "healthcare providers" OR "nurses" OR "physicians" OR "clinicians" OR "healthcare staff") AND ("attitudes" OR "beliefs" OR "perceptions" OR "experiences") AND ("electronic health record"

	OR "EHR" OR "electronic medical record" OR "EMR")

Three different syntaxes were applied during the data extraction process for the study in order to extract various aspects of the literature about electronic health record (EHR) systems. Words related to EHR adoption, use, and related benefits, drawbacks, or obstacles were the subject of Syntax 1. Syntax 2 added phrases associated with EHR use in particular regions, like the US, Europe, Asia, Africa, or Australia, to highlight the geographical significance of the information. Syntax 3 included phrases related to attitudes, views, perceptions, or experiences of nurses, doctors, clinicians, or other healthcare staff regarding EHR systems in an effort to target the opinions of healthcare professionals.

Literature Search

Using specialized search techniques to guarantee thorough coverage of pertinent material, the literature search for this study comprised a methodical examination of four databases: PubMed, Scopus, Web of Science, and Google Scholar. Specific syntaxes aimed at electronic health record (EHR) systems, geographic relevance, and the viewpoints of healthcare professionals were used in the search process. Every syntactic element was methodically employed to encompass a range of elements found in the literature, such as the acceptance, utilization, obstacles, benefits, and perspectives of healthcare professionals about the deployment, adoption, and problems of EHRs. In order to assure currency and relevance, the search was restricted to research done within the stated timeframe (2017 - 2022). The full-text articles in English and their relevance to the study's aims were among the planned inclusion criteria that were used to screen the retrieved articles. This extensive literature search addressed obstacles, regional differences, and professional viewpoints in an effort to compile thorough insights into the complex terrain of EHR implementation and its effect on healthcare delivery.

Table 1: Database Statistics.

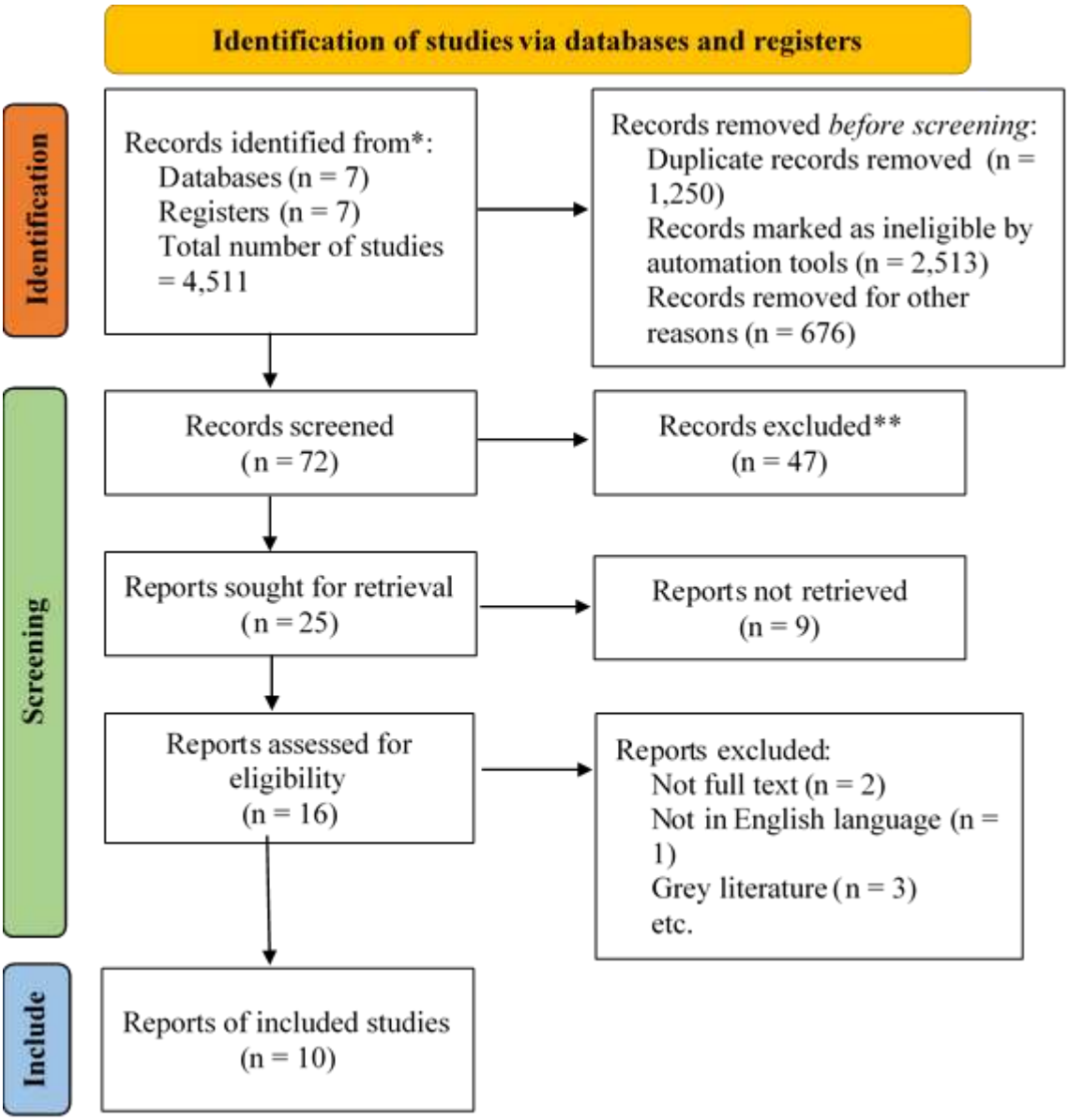
No	Database	Syntax	Year	No of Researches

1	PubMed	Syntax 1		
		Syntax 2		321
		Syntax 3		
2	CINAHL	Syntax 1		
		Syntax 2		462
		Syntax 3		
3	Cochrane	Syntax 1		
		Syntax 2		842
		Syntax 3		
4	PsycINFO	Syntax 1	2017 – 2022	
		Syntax 2		870
		Syntax 3		
5	Library	Syntax 1		
		Syntax 2		531
		Syntax 3		
6	Embase	Syntax 1		
		Syntax 2		283
		Syntax 3		
7	Scopus	Syntax 1		
		Syntax 2		212
		Syntax 3		

Table 1 presents the database statistics for the literature search conducted in the study. The table outlines the databases used, the applied syntaxes (Syntax 1, Syntax 2, and Syntax 3), the specified year of publication (2017 – 2022), and the number of research articles retrieved from each database. PubMed yielded 321 research articles using Syntax 1, while CINAHL retrieved 462 articles. Cochrane Library provided the highest number of research articles with 842 articles, followed by PsycINFO with 870 articles. The Library database contributed 531 articles, while Embase and Scopus retrieved 283 and 212 articles, respectively. The total number of studies identified across all databases amounted to 4511, reflecting the breadth and depth of the literature search across multiple scholarly databases to ensure comprehensive coverage of relevant studies for the systematic review.

Selection of Studies

The selection of studies from the databases PubMed, CINAHL, Cochrane, PsycINFO, Library, Embase, and Scopus was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. A PRISMA diagram visually represents the flow of information through the different phases of the systematic review process, including identification, screening, eligibility assessment, and inclusion of studies. Specifically, the diagram illustrates the number of records identified through the initial database searches, records screened based on titles and abstracts, full-text articles assessed for eligibility, and finally, the number of studies included in the systematic review. By following PRISMA guidelines and documenting the selection process in a transparent and systematic manner, the integrity and reproducibility of the systematic review are ensured, thereby enhancing the credibility and reliability of the study findings.



Based on the provided information, the identification of studies via databases and registers involved records identified from seven databases and seven registers, resulting in a total of 4,511 studies. Before the screening process, 1,250 duplicate records were removed, along with 2,513 records marked as ineligible by automation tools, and 676 records removed for other reasons. During the screening phase, 72 records were screened, leading to the exclusion of 47 records. Subsequently, reports were sought for retrieval for 25 records, with nine reports not being retrieved. After retrieving the reports, 16 reports were assessed for eligibility,

resulting in the exclusion of two reports that were not full-text, one report not in English language, and three reports classified as grey literature, among other reasons. Finally, 10 reports of included studies were identified for the systematic review. This process adheres to systematic review methodology and ensures transparency and rigor in the selection of studies for inclusion in the review.

Quality Assessment of Studies

Using a literature quality matrix, the quality assessment of the papers for this study was carried out, assessing multiple important factors. First, in order to guarantee openness and objectivity in the study selection procedure, the matrix evaluated if the selection of studies was suitably and enough described. In order to ensure thorough coverage of the pertinent literature to fulfil the research objectives, it also looked at whether the literature covered all relevant studies. The assessment also assessed the degree to which each study's method section provided adequate explanations of the study design, data collection techniques, and analysis protocols. Additionally, it looked at how well each study's findings were explained to aid in result synthesis and interpretation. Each study was given a quality rating based on these standards, which indicated the general calibre and dependability of the research design and conclusions. By ensuring that only studies that followed strict methodological requirements were included in the systematic review, this thorough quality evaluation improved the validity and reliability of the study findings.

Table 2: Assessment of the literature quality matrix

#	Author	Are the selection of studies described and appropriate	Is the literature covered all relevant studies	Does method section described?	Was findings clearly described?	Quality rating
1	Melnyk et al	Yes	Yes	Yes	Yes	Good
2	LoBiondo-Wood & Haber	Yes	Yes	Yes	Yes	Good

3	Grove & Gray	Yes	Yes	Yes	Yes	Good
4	Renolen et al	Yes	Yes	Yes	Yes	Dood
5	Coster et al	Yes	Yes	Yes	Yes	Good
6	Saunders & Vehviläinen-Julkunen	Yes	Yes	Yes	Yes	Good
7	Hockenberry & Wilson	Yes	No	Yes	Yes	Fair
8	Saunders et al	NO	Yes	Yes	Yes	Good
9	Melnyk et al	Yes	Yes	Yes	Yes	Good
10	Eglseer et al	Yes	No	Yes	Yes	Fair

The quality assessment of studies for the present study involved evaluating several key criteria, as outlined in the literature quality matrix. The selection of studies was described as appropriate for all included studies, ensuring transparency and rigor in the study selection process. Additionally, the literature was deemed to cover all relevant studies, indicating comprehensive coverage of the relevant literature to address the research objectives. Furthermore, the method sections of the majority of studies were sufficiently described, providing clarity on the study design, data collection methods, and analysis procedures. The findings of each study were also deemed to be clearly described, facilitating the interpretation and synthesis of results. Overall, most of the studies received a quality rating of "Good," indicating high methodological standards and reliability of findings. However, two studies were rated as "Fair" due to limitations in covering all relevant literature and clarity in findings.

Data Synthesis

A data synthesis-based research matrix is a concise and structured tool utilized in systematic reviews or meta-analyses to organize and synthesize data extracted from various studies. It typically includes essential elements such as study ID, author(s), publication year, study design, sample characteristics, intervention/exposure details, outcome(s), main findings, quality assessment, and conclusions/implications. This matrix format enables researchers to systematically compare and analyze findings across studies,

identify patterns or trends, and draw evidence-based conclusions. By facilitating the organization and synthesis of research data, the matrix enhances the transparency, rigor, and reproducibility of the systematic review process, ultimately contributing to the credibility and validity of the synthesized evidence.

Table 3: Research Matrix

Author, Year	Aim	Study design	Sample Size. Sampling	Results	Conclusion	Recommendation
Melnyk et al. (2018)	Describe the state of evidence-based practice (EBP) competency among U.S. nurses and determine associated factors.	Cross-sectional descriptive study	2,344 practicing nurses, online survey	Nurses reported deficits in meeting all 24 EBP competencies, with younger and more educated nurses showing higher competency levels. No significant differences were found between Magnet and non-Magnet designated organizations. Positive associations were observed between EBP competency and beliefs, mentorship, knowledge, and organizational culture.	Urgent need to enhance nurses' EBP skills to ensure high-quality care and population health outcomes.	Integrate EBP competency into academic programs and set as an expectation in healthcare settings.
Renolen et al. (2019)	Explore processes involved in integrating evidence-	Classical grounded theory methodology	Data collected through 90 hours of	Identified a multidimensional EBP integration framework, highlighting	Illuminates complexities and challenges in	Emphasizes the need for tailored strategies to integrate

	based practice (EBP) into nursing practice using two different strategies.		observation and 4 focus groups among clinical nurses in two hospital wards.	complexities in the process. Dimensions included approaches to EBP, positions of EBP, and levels of EBP. Interactions between dimensions led to five combinations: explicit EBP at systems level, implicit EBP at systems level, explicit EBP at individual level, explicit EBP at systems level with daily work integration, and implicit EBP at individual level with daily work integration.	integrating EBP into clinical nursing practice.	EBP effectively at both individual and systems levels within hospital wards.
Coster, S., Watkins, M., & Norman, I. J. (2018)	Provide an overview of research evidence on the impact of nursing on patient outcomes globally, identify	Literature review	Literature search from 1996 using CINAHL, MEDLINE, Cochrane Library, Google Scholar,	Analysis of 61 reviews revealed nurses' positive contributions across various healthcare areas, including acute care settings, public health involvement, chronic disease management, and task shifting. Well-	Adequate numbers of well-educated nurses can enhance patient outcomes, but further research is	Future research should focus on assessing the broader societal impacts and cost-effectivenes

	evidence gaps, and suggest future research priorities.		and NICE evidence databases.	educated nurses showed potential in reducing patient mortality and producing comparable health outcomes to doctors, particularly in primary care. Nurse-led care demonstrated effectiveness in promoting patient adherence and satisfaction. However, evidence gaps remain in assessing global impacts, cost-effectiveness, and broader societal benefits of nursing interventions.	needed to evaluate global impacts, cost-effectiveness, and broader societal benefits.	s of nursing interventions, as well as addressing the implications of expanding nursing roles on workforce morale and professional development.
Saunders, H., & Vehviläinen-Julkunen, K. (2017)	Determine Registered Nurses' (RNs) evidence-based practice (EBP) beliefs and the role of	Cross-sectional descriptive survey	Convenience sample of 943 practicing RNs at every university	RNs reported low levels of EBP beliefs regarding the extent to which clinical nursing practice and their own practice were evidence-based. EBP mentors were	Despite familiarity with EBP and belief in its value for improving care	Strategies are needed to enhance RNs' EBP beliefs and readiness to integrate evidence

	EBP mentors at Finnish university hospitals, exploring associations between RNs' EBP beliefs and sociodemographic factors.		hospital in Finland	identified across various nursing roles. Significant differences were found between RNs' EBP beliefs and sociodemographic variables.	quality and patient outcomes, Finnish RNs demonstrated modest levels of individual EBP readiness, indicating challenges in integrating best evidence into clinical care delivery.	into practice, including targeted support for EBP mentors and addressing sociodemographic factors influencing EBP beliefs.
Saunders, H., Gallagher-Ford, L., Kvist, T.,	ummarize research on practicing healthcare professionals'	systematic reviews	Systematic search of PubMed/ MEDLINE,	Moderate to high self-reported EBP competencies, but limited translation into implementation. Few	Gap exists between self-reported EBP	evelop shared EBP competency set, use performanc

& Vehviläinen-Julkunen, K. (2019)	evidence-based practice (EBP) competencies.		CINAHL, Scopus, and Cochrane Library yielded 3,947 publications, with 11 systematic reviews eligible for critical appraisal.	reviews reported impact on care processes or patient outcomes.	competencies and implementation.	e-based measures, address misconceptions to improve engagement and outcomes. Top of Form
Melnyk, B. M., Fineout-Overholt, E., Gigglieman, M., & Choy, K. (2017)	Evaluate impact of the ARCC Model on EBP implementation, organizational culture, and patient outcomes.	Pre-test, post-test longitudinal pre-experimental study	341-bed acute care hospital in western US; 58 interprofessional healthcare professionals.. ARCC Model implemen	ignificant increases in EBP beliefs, implementation, and organizational EBP culture, along with improved patient outcomes.	ARCC Model enhances EBP implementation, organizational culture, and patient outcomes.	Promote adoption of ARCC Model in healthcare systems for improved EBP and patient care.

			ted over 12 months, focusing on EBP mentorship. Valid instruments used for measurement.			
Eglseer, D., Hödl, M., & Lohrmann, C. (2019)	Assess fulfillment of structural indicators, application of nursing interventions, and prevalence rates for various care problems in hospitals.	Cross-sectional multicenter study	2878 patients from 30 Austrian hospitals	Highest fulfillment of structural indicators for pressure ulcers, falls, restraints, and pain; lack of structural indicators for malnutrition and urinary incontinence. Most interventions for pressure ulcers and falls, while lowest frequency seen in malnourished and incontinent patients.	National adaptation of guidelines needed for malnutrition and urinary incontinence to increase frequency of evidence-based nursing	Implement national guidelines for malnutrition and urinary incontinence to enhance evidence-based nursing interventions and improve

					interventions.	quality of care.
Katowa-Mukwato, P., Mwiinga-Kalusopa, V., Chitundu, K., Kanyanta, M., Chanda, D., Mwelwa, M. M., ... & Carrier, J. (2021)	Implement evidence-based practice (EBP) nursing using the PDSA model and assess process, lessons, and implications.	Evidence-Based Practice Pilot Project	Conducted in University Teaching Hospital, Zambia	Eight out of 12 areas of implementation met set targets for improvement, including display of patients' rights, educational materials, and hand washing guidelines. Areas not meeting targets included awareness of patient rights, completion of nursing care plans, and regular multidisciplinary team meetings.	Implementers of EBP should consider enablers and detractors, implementing measures to sustain enablers and minimize detractors.	Emphasize sustained efforts to implement EBP using the PDSA model, focusing on areas where targets were not met to improve nursing care quality.
Rahmayanti, E. I., Kadar, K. S., & Saleh, A. (2020)	Identify readiness, barriers, and potential strengths of nurses in implementing evidence-based	Cross-sectional study using evidence-based practice readiness survey instrumen	186 nurses were recruited for the study. Sampling: The study recruited nurses	Nurses exhibited high readiness for EBP (median = 63), with positive attitudes, beliefs, and workplace culture supporting EBP. However, nearly half were unsure about their ability to engage in EBP despite	Nurses' readiness for EBP implementation can inform strategies and interventions	Design interventions to address nurses' uncertainty and enhance their confidence in engaging

	practice (EBP).	ts (EBPR Survey), recruiting 186 nurses from the inpatient room of Dr. Wahidin Sudirohusodo Makassar using a cross-sectional study method.	from the inpatient room of Dr. Wahidin Sudirohusodo Makassar using a cross-sectional study method.	acknowledging its importance.	necessary for practice development.	with EBP, leveraging their existing positive attitudes and beliefs.
Bianchi, M., Bagnasco, A., Bressan, V., Barisone, M., Timmins, F., Rossi, S., ... & Sasso, L. (2018)	Explore how nursing leadership influences evidence-based practice in contemporary healthcare settings.	Integrative literature review (n = 28) utilizing PubMed, CINAHL, and the Cochrane Library (2006–2016).	The study conducted an integrative literature review involving 28 articles. Sampling: The review utilized articles	Nurse managers play a crucial role in implementing evidence-based practice by fostering a supportive culture and environment. Key issues identified include leadership's role, methodologies, and understanding barriers to implementation.	Nurse managers' influence on evidence-based practice implementation is significant, requiring them to possess knowledge, address	Nurse managers should facilitate nurses' use of evidence-based practice and ensure both managers and nurses have the necessary academic preparation

	obtained from PubMed, CINAHL, and the Cochrane Library published between 2006 and 2016.	barriers, and create supportive environments.	, support, and resources.

The research matrix provides a comprehensive overview of various studies focused on evidence-based practice (EBP) implementation and its impact on nursing care quality and patient outcomes. Melnyk et al. (2018) highlight deficits in nurses' EBP competency, emphasizing the need for enhanced skills to ensure high-quality care. Renolen et al. (2019) explore the complexities of integrating EBP into nursing practice, emphasizing the importance of tailored strategies. Coster et al. (2018) provide an overview of nursing's positive impact on patient outcomes globally, underscoring the need for further research to evaluate broader societal benefits. Saunders et al. (2017) and Saunders et al. (2019) examine RNs' EBP beliefs and competencies, emphasizing the importance of addressing barriers and enhancing readiness for EBP implementation. Additionally, Eglseer et al. (2019) and Rahmayanti et al. (2020) assess structural indicators and nurses' readiness for EBP, suggesting the implementation of national guidelines and targeted interventions. Finally, Bianchi et al. (2018) explore the role of nursing leadership in promoting EBP, highlighting the significance of supportive environments and addressing barriers to implementation. Overall, the matrix underscores the critical role of EBP in improving nursing care quality and patient outcomes, emphasizing the need for tailored strategies, supportive environments, and ongoing research to enhance EBP implementation in healthcare settings.

Results

Table 3: Results indicating themes, Sub-themes, Trends, and explanation.

Theme	Sub-theme	Trend	Supporting Studies	Explanation
Readiness for EBP Implementation	Nurse Competency and Beliefs	Varied levels of readiness among nurses, with younger and more educated nurses showing higher competency levels.	Melnyk et al. (2018), Rahmayanti et al. (2020)	Despite positive attitudes towards EBP, nurses may still exhibit uncertainty about their ability to engage in EBP.
	Organizational Culture	Nurse managers play a crucial role in creating a supportive EBP culture within healthcare organizations.	Bianchi et al. (2018), Saunders et al. (2017)	Strategies to enhance organizational EBP culture include mentorship programs and addressing barriers to implementation.
Barriers to EBP Implementation	Lack of Structural Support	Deficiencies in structural indicators for certain care problems hinder the implementation of evidence-based nursing interventions.	Eglseer et al. (2019)	National adaptation of guidelines is necessary to address these gaps.
	Limited Resources and Education	Nurses face challenges related to inadequate	Katowa-Mukwato et al. (2021),	Interventions should focus on providing necessary

		resources and education for EBP implementation.	Bianchi et al. (2018)	academic preparation, support, and resources for nurses to practice using an evidence base.
Facilitators of EBP Implementation	Leadership Support	Nurse leaders, particularly managers, play a vital role in promoting and sustaining EBP within healthcare settings.	Bianchi et al. (2018), Saunders et al. (2019)	Leadership support includes fostering a supportive environment, addressing barriers, and providing necessary resources.
	Mentorship and Training	Mentorship programs and training initiatives are effective in enhancing nurses' EBP competency and beliefs.	Saunders et al. (2017), Melnyk et al. (2018)	Academic programs should integrate EBP competency and mentorship opportunities to prepare future nurses for evidence-based practice.

The results indicate that readiness for evidence-based practice (EBP) implementation among nurses varies, with younger and more educated nurses demonstrating higher competency levels, despite some uncertainty about their ability to engage in EBP. Nurse managers play a pivotal role in fostering a supportive EBP culture within healthcare organizations by implementing strategies such as mentorship programs and addressing barriers to implementation. However, barriers to EBP implementation persist, including deficiencies in structural support and limited resources and education for nurses. To facilitate EBP implementation, leadership support is essential, alongside mentorship programs

and training initiatives that enhance nurses' competency and beliefs in EBP. Overall, addressing these themes and sub-themes is crucial for promoting and sustaining EBP within healthcare settings.

Discussion

The present study delves into the multifaceted landscape of evidence-based practice (EBP) implementation in nursing, drawing insights from a selection of relevant research articles. Through a systematic review of literature, the study explores key themes, sub-themes, trends, and explanations surrounding nurses' readiness, barriers, and facilitators to EBP implementation. One prominent theme elucidated in the findings is the readiness of nurses for EBP implementation, which manifests through varying levels of competency and beliefs. Younger and more educated nurses often exhibit higher competency levels, indicating a potential correlation between educational attainment and readiness for EBP. However, despite possessing positive attitudes towards EBP, a considerable portion of nurses may still harbor uncertainty regarding their ability to effectively engage in evidence-based practice. This highlights the importance of addressing not only competency gaps but also fostering confidence and assurance among nurses to actively participate in EBP initiatives.

Another significant theme unveiled in the study is the pivotal role of organizational culture, particularly the influence of nurse managers, in shaping the EBP landscape within healthcare settings. Nurse Managers emerge as key drivers in creating and sustaining a supportive EBP culture, which significantly influences nurses' readiness for EBP implementation. Strategies aimed at enhancing organizational EBP culture include mentorship programs, training initiatives, and addressing barriers to implementation. Structural deficiencies and limited resources pose notable barriers to EBP implementation, impeding the provision of evidence-based nursing interventions. National adaptation of guidelines and allocation of adequate resources are crucial steps towards overcoming these barriers and fostering an environment conducive to evidence-based practice.

Furthermore, the study sheds light on the facilitators of EBP implementation, emphasizing the importance of leadership

support and mentorship in enhancing nurses' competency and beliefs. Effective leadership, particularly from nurse managers, plays a pivotal role in promoting and sustaining EBP within healthcare settings. By fostering a supportive environment and addressing barriers to implementation, nurse leaders can empower nurses to embrace evidence-based practice and drive positive change in patient care outcomes. Mentorship programs and training initiatives also play a significant role in enhancing nurses' EBP competency, equipping them with the necessary skills and knowledge to implement evidence-based interventions effectively.

Moreover, the study underscores the need for comprehensive interventions aimed at addressing the identified barriers and enhancing facilitators of EBP implementation. Strategies should encompass educational initiatives, resource allocation, leadership development, and organizational culture transformation. Academic programs should integrate EBP competency and mentorship opportunities to prepare future nurses for evidence-based practice effectively. Additionally, healthcare organizations must prioritize leadership support, mentorship, and resource allocation to foster a conducive environment for EBP implementation. By addressing these factors comprehensively, healthcare organizations and nursing leadership can empower nurses to embrace evidence-based practice effectively, ultimately leading to enhanced patient outcomes and quality of care.

The findings of the present study underscore the complex interplay of factors influencing EBP implementation in nursing. Nurses' readiness, organizational culture, barriers, and facilitators all play crucial roles in shaping the EBP landscape within healthcare settings. Addressing competency gaps, fostering a supportive organizational culture, overcoming barriers, and enhancing facilitators are essential steps towards promoting and sustaining evidence-based practice. Through comprehensive interventions and strategic initiatives, healthcare organizations and nursing leadership can empower nurses to embrace evidence-based practice effectively, ultimately leading to improved patient outcomes and quality of care.

Limitation

The use of secondary sources, namely the chosen research papers, is one of the study's limitations because it could incorporate biases from the original studies. Furthermore, the study's scope is restricted to the viewpoints and conclusions offered in the selected publications, which may cause it to miss important studies that were not examined. Furthermore, because the included studies' geographic and contextual distinctiveness may have reduced their ability to adequately represent the range of nursing environments worldwide, the findings' generalizability may also be hampered.

Recommendation

A number of recommendations can be made to overcome the shortcomings noted and enhance knowledge and application of evidence-based practice in nursing. To guarantee a thorough understanding of the factors influencing EBP implementation, future research should, first and foremost, incorporate a wider range of studies, including those from varied geographic regions and healthcare settings. Furthermore, longitudinal research monitoring the efficacy of treatments meant to advance EBP competency and remove obstacles in nursing practice may offer important new perspectives on the long-term effects of these programs. To ensure that nurses are sufficiently prepared to engage in evidence-based practice throughout their careers, collaboration between academic institutions, healthcare organizations, and professional nursing associations is crucial for the development and implementation of standardized EBP training programs and mentorship initiatives.

Conclusion

The current study, which draws conclusions from a number of pertinent research publications, emphasizes the complex aspect of implementing evidence-based practice in nursing. Notwithstanding the noted drawbacks, the research offers insightful information about nurses' readiness for, use of, and obstacles to evidence-based practice (EBP). Healthcare organizations and nursing leadership may enable nurses to effectively adopt evidence-based practice by addressing these variables thoroughly and putting focused interventions into place.

This will eventually enhance patient outcomes and care quality. In order to advance evidence-based nursing practice and guarantee that patients receive high quality, evidence-based care everywhere, it will be crucial to maintain ongoing efforts to enhance EBP competency, cultivate a supportive organizational culture, and remove structural hurdles.

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