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REVIEW OF NURSING KNOWLEDGE, SKILLS AND ATTITUDES TOWARDS EVIDENCE-BASED PRACTICE

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https://doi.org/10.60137/tmhvn.v70i74.229

ABSTRACT

Objective: To provide a comprehensive overview of nurses' knowledge, skills, and attitudes toward evidence-based practice (EBP), identify key factors influencing EBP implementation in clinical settings, and highlight areas for improvement to enhance nursing competencies and healthcare quality globally. **Method:** A scoping review. **Results:** Of the 75 relevant articles, 7 met the selection criteria and were included in the study. Studies on Evidence-Based Practice (EBP) in nursing have been conducted internationally, with the notable finding that many studies have shown that although nurses and nursing students have positive attitudes towards EBP, their EBP knowledge and skills are limited. **Conclusion:** Evidence-Based Practice (EBP) plays a pivotal role in improving the quality of health care, and nurses are an indispensable force in the process of applying EBP into clinical practice.

Keywords: Evidence-based practice, nursing, EBP

1. INTRODUCTION

Evidence-based practices (EBP) are increasingly recognized as an important element in improving the quality of health care [1-5], and nurses play a key role in implementing EBP in clinical practice [1, 2]. EBP requires nurses to have the appropriate knowledge, skills, and attitudes to be able to seek out, evaluate, and apply the best scientific evidence in decision-making and care practices [1-3]. Lack of knowledge, skills, or positive attitudes toward EBP can lead to the use of ineffective or outdated care methods, negatively affecting patient outcomes [1, 2].

Although the importance of EBP has been emphasized in many studies, there are still significant differences in nurses' knowledge, skills, and attitudes toward EBP across countries and health care settings [2-4]. Some studies have shown that nurses may have positive attitudes toward EBP but lack skills in finding and evaluating evidence, while others have shown that knowledge about EBP is limited [1, 2]. Furthermore, factors that influence the implementation of EBP in clinical practice, such as barriers from the work environment or lack of support from colleagues and managers, are not fully understood [4, 5].

To address these gaps, by synthesizing and analyzing existing evidence, this study will shed more light on the current state of EBP in nursing, identify factors that influence EBP implementation, and point out areas for improvement. Therefore, the objective of this study is to provide a comprehensive overview of nurses' knowledge, skills, and attitudes toward evidence-based practice (EBP), identify key factors influencing EBP implementation in clinical settings, and highlight areas for improvement to enhance nursing competencies and healthcare quality globally. The results of this study will provide important information for managers, educators, and researchers to develop strategies to enhance nurses' EBP competencies, thereby improving the quality of care and patient outcomes.

2. SUBJECTS AND METHODS

2.1. Research subjects

The research subjects are scientific articles and documents related to nurses' knowledge, skills and attitudes towards evidence-based practice.

Selection criteria: Publications and research articles related to nurses' knowledge, skills and attitudes towards evidence-based practice; Location: Worldwide; Language: English; Publication: 2020-2025.

Exclusion criteria: Duplicate publications and articles; Publications and articles that do not provide original data; Publications and articles that do not have full-text articles.

2.2 Methods, search strategies and data sources

- This survey was conducted according to the PRISMA-ScR (PRISMA exension for Scoping Reviews) guidelines, which is a checklist for conducting review studies.

- Study design: Review thesis.

- We conducted a systematic search on PubMed, Ebsco and Embase databases with the search keywords: (evidence-based practices) AND (knowledge, skills, and attitudes of nursing))

2.3. Research selection

Two researchers performed independently in 2 steps:

- Step 1: Abstracts of found articles will be removed from duplication and entered into Endnote X7 document management software. Researchers will carefully read the title and abstract. Articles that meet the criteria will be selected, articles that do not meet the criteria will be excluded.

- Step 2: Studies with appropriate titles and abstracts will be read in full text, if determined to be suitable for the research objectives, they will be selected and information collected.

In these 2 steps, if there is a conflict between the two researchers, both will discuss and reach a consensus.

2.4. Data extraction

Author, year of publication, location, study design, study subjects, sample size, main results and conclusions of the study.

3. RESEARCH RESULTS

A total of 75 articles were found in the database, after exclusion, 7 articles were selected for full text reading and found to meet the selection criteria, exclusion criteria and were included in the study (*diagram below*).
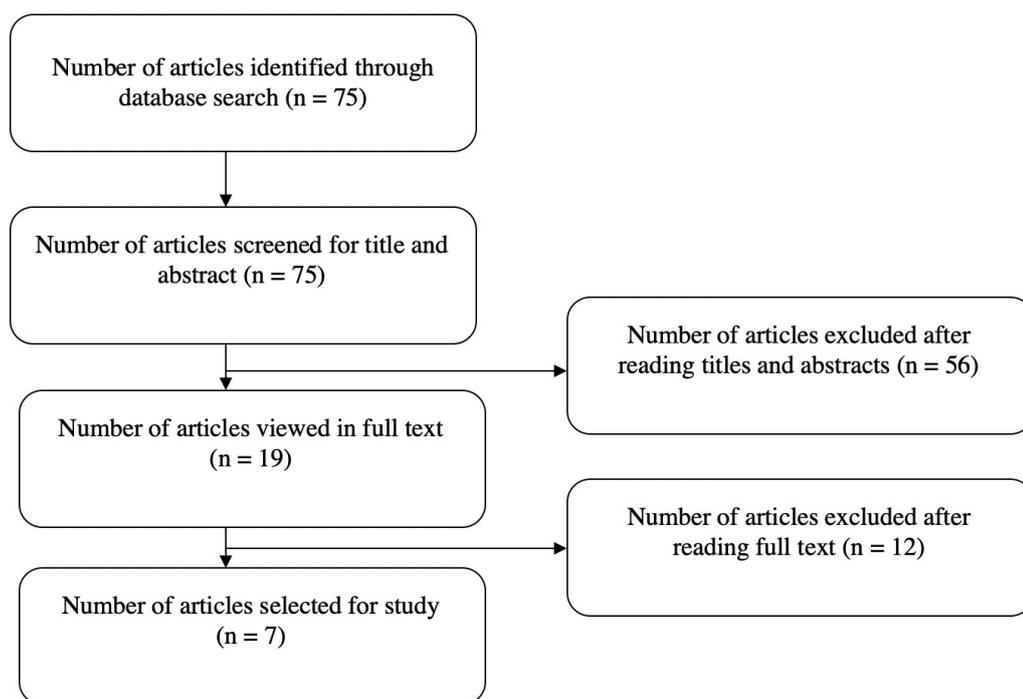
Table 1. Main results from eligible articles

Author, year	Location	Object	Sample size	Research design	Key results	Conclude
Tlili et al., 2021 [1]	Tunisia	Nursing student	365	Cross-section	The mean scores of the attitude, skill and knowledge scales were 4.04 ± 0.41; 3.05 ± 0.77 and 2.70 ± 0.74, respectively.	Nursing students had moderately positive attitudes toward EBP, but lower levels of skills and knowledge.
Myakava LHK et al., 2021[2]	Brazil	Nursing student	125	Cross-section	The mean score was 4.73 (SD = 0.79), with the highest score in the attitude domain. There was a correlation between score and year of study (p < 0.001).	Nursing students lack knowledge and skills related to EBP.
Konlan KD et al., 2024 [3]	Ghana	Clinical Nursing and Instructor	480	Cross-section	30% of nurses self-rated their research competence as average/poor. Knowledge, attitudes toward EBP, and nursing competence differed significantly by educational level.	Nurses are confident in their research abilities, but overall assessment shows that their knowledge and skills are only average.
Gómez-Salgado J et al, 2022 [4]	Spain	Nursing student	No specific information available	Cross-section	Students had a relatively high mean score on evidence-based practice awareness (CACH-PBE = 91.9) and a moderate level of work engagement (UWES-9S = 36.8).	Nursing students have moderate to high levels of knowledge, skills, and attitudes toward evidence-based practice and engagement with their work.

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Perruchoud E et al, 2021 [5]	Switzerland	Nursing at nursing home	194	Cross-section	Subjects had a positive level of understanding and attitude towards evidence-based practice (EBP). However, a significant proportion found EBP to be complex and time-consuming.	Most participating nurses had positive attitudes and some understanding of evidence-based practice (EBP). However, many found EBP complex and time-consuming.
Ubbink DT et al., 2025 [6]	Maldives	Nursing	418	Cross-section	About half of the respondents worked in tertiary hospitals and had a bachelor's degree in nursing. EBP was considered (very) useful and relevant for clinical practice, but attitudes towards and promotion of EBP were considered inadequate.	The study population valued the role of evidence-based practice (EBP), but perceived low attitudes and motivation to promote EBP in the workplace. These nurses tended to utilize research through EBP guidelines, and more than half of them had attended EBP training courses.
Młynarska K et al, 2022 [7]	Poland	Nursing	830	Cross-section	Older nurses tended to have more challenges and lower levels of EBP. In contrast, university-educated nurses demonstrated the best skills and a high willingness to learn. Work experience was shown to have a negative impact on EBP adoption.	Demographic factors (age, marital status, education) and job-related factors (seniority, type of school, specialization) all significantly influenced EBP knowledge, attitudes, and skills. Notably, older age and longer work experience tended to be associated with less effective EBP adoption, while university education and specialized training had a positive impact on EBP competence.

Studies on EBP in nursing have been conducted internationally. At the same time, studies have focused on a variety of subjects, including nursing students and nurses/teachers, reflecting the importance of building EBP competencies from the initial training stage and continuing to develop throughout practice. Cross-sectional research designs are common in these studies. A notable finding is that many studies have shown that although nurses and nursing students have positive attitudes toward EBP, their knowledge and skills in EBP are limited. Finally, studies have also identified barriers to EBP adoption, including lack of knowledge, lack of time, lack of resources, and organizational factors.

4. DISCUSSION

4.1. Characteristics of time and location of research:

Research on EBP in nursing has demonstrated global interest, demonstrated through diverse research projects in terms of location. From Tunisia (Tlili et al., 2021), Brazil (Myakava LHK et al., 2021), Ghana (Konlan KD et al., 2024) to Spain (Gómez-Salgado J et al., 2022), Switzerland (Perruchoud E et al., 2021), Maldives (Ubbink DT et al., 2025) and Poland (Młynarska K et al., 2022) [1-7], these studies not only reflect the popularity of the EBP topic but also demonstrate the

urgency of building EBP capacity in many countries with different health systems and cultures. This wide geographical distribution emphasizes that EBP is no longer a distant theoretical concept but has become a practical requirement for improving the quality of nursing care worldwide. Notably, the majority of studies were conducted between 2021 and 2024 (except for the study by Ubbink DT et al., 2025) [6], indicating that this is a rapidly growing area of research and is receiving increasing attention from the nursing scientific and practice community. However, to ensure effective application in Vietnam, it is extremely important to conduct similar studies in the country. This is due to differences in cultural contexts, healthcare organizational structures, resources, and healthcare priorities, which can significantly influence the implementation and effectiveness of EBP.

4.2. Subject characteristics, sample size, and research methods:

Studies on EBP in nursing demonstrate diversity in sample size, ranging from 125 (Myakava LHK et al., 2021) to 830 participants (Młynarska K et al., 2022) [2, 7], allowing for the assessment of EBP at different scales and enhancing the generalizability of the results. In particular, the research subjects mainly focused on nursing students (Tlili et al., 2021; Myakava LHK et al., 2021; Gómez-Salgado J et al., 2022) [1, 2, 4] and nurses (Konlan KD et al., 2024; Perruchoud E et al., 2021; Ubbink DT et al., 2025; Młynarska K et al., 2022) [3, 5-7], emphasizing the importance of building EBP competencies from the initial training stage and continuing to develop throughout the practice. Cross-sectional research

designs are commonly used in these studies, allowing data to be collected on EBP knowledge, attitudes, and skills at a given point in time, providing an overview of the current state of EBP. Although this design has certain advantages, it should be noted that it cannot determine causal relationships or track changes over time. Therefore, in the future, incorporating longitudinal or interventional research designs would provide deeper insights into the development of EBP and the effectiveness of different interventions.

4.3. Characteristics of study results:

The review of studies shows a common trend: Although nursing students and nurses' attitudes towards EBP are generally positive, their EBP knowledge and skills are limited (Tlili et al., 2021; Myakava LHK et al., 2021; Konlan KD et al., 2024; Perruchoud E et al., 2021) [1-3, 5]. Studies have also shown that there are many factors that influence EBP competence, including education level, work experience, access to information, and support from colleagues and organizations (Tlili et al., 2021; Konlan KD et al., 2024; Gómez-Salgado J et al., 2022; Młynarska K et al., 2022) [1, 3, 4, 7]. At the same time, barriers to EBP adoption have also been clearly identified, including lack of knowledge, lack of time and resources, as well as resistance from colleagues and managers (Ubbink DT et al., 2025) [6]. From these results, studies have come to a common conclusion about the need to enhance EBP training and implement interventions to promote EBP application in clinical practice. In Vietnam, these findings and conclusions are of particular importance. They provide a scientific basis for developing EBP

education programs that are appropriate to the needs and practical conditions of Vietnamese nurses, and at the same time guide the implementation of effective intervention strategies to improve the quality of patient care and develop the nursing profession in a professional and evidence-based manner.

5. CONCLUSION

Overview of EBP research in nursing plays a pivotal role in improving the quality of health care and nurses are indispensable in the process of applying EBP in clinical practice. However, research also shows that there are still significant challenges in implementing EBP, including the lack of knowledge and skills in EBP among nurses, as well as barriers from the work environment. To overcome these challenges, there is a need for a concerted effort from managers, educators, and researchers to develop effective strategies to improve nurses' EBP competencies. This will not only help improve patient outcomes but also contribute to the professional development of nursing in the context of modern medicine that is increasingly based on evidence.

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