

Evidence-Based Practice: The Essential Competency of Nursing Students for the Aging World

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Received: November 21, 2023

Accepted: January 5, 2024

Online Published: March 28, 2024

doi:10.5539/ies.v17n2p63

URL: <https://doi.org/10.5539/ies.v17n2p63>

Abstract

The qualitative research explored the perceptions toward evidence-based practice competency of nursing students in caring for older adults. Nine participants met the criteria using purposive sampling and were invited to join in the study of evidence-based practice experiences in nursing students. The data was analyzed using thematic analysis. Three main themes emerged: 1) Knowledge enhancing evidence-based practice with three sub-themes: implementing the nursing process, searching for trustworthy information, and selecting appropriate guidelines; 2) Skills driving evidence-based practice with three sub-themes including nursing practice skills, critical thinking skills, and language skills; and 3) Attitude fostering evidence-based practice with two sub-themes as well as increasing the quality of care for older adults and improving the nursing profession. Therefore, the following study should test component factors of evidence-based geriatric nursing competencies for nursing students, leading to developing the competency of nursing students in care for older adults in the future.

Keywords: evidence-based practice, competency, nursing students, aging

1. Introduction

Nurses provide direct care and support and spend the most time with patients (Sin & Bliquez, 2017). Nursing care in the future faces challenges in global situations that require professional nurses to solve practical problems and ensure patients' safety and quality nursing care (Aglen, 2016). Professional nurses are prepared through nursing educational programs via a Bachelor's degree program to establish the students' abilities and attitudes through academic education and clinical learning experience (Herliani et al., 2018). Consequently, nurses should be able to adapt to the social and cultural context, adhere to the principles of the sufficiency economy philosophy, and use electronic communication networks to search for health and nursing information and related knowledge, as well as to communicate and exchange knowledge between healthcare professionals and the public (Thailand Nursing and Midwifery Council, 2018). Specifically, nurses who care for older adults must have specific competencies to provide healthcare, promote health, adapt to change, improve physical function, prevent illness and injury, and collaborate with older adults and their families by respecting the aging process, providing culturally sensitive care, providing palliative care until end-of-life care (Canadian Association of Schools of Nursing, 2017). In addition, nurses should have several roles, including a caregiver role, an educator role, a leadership role, an advocate role, and a role using evidence-based practice in clinical practice that apply evidence-based practice in nursing, which helps to improve the quality of care and must use evidence-based practice that is reliable and accurate that have a role in research, such as providing data for research studies (Mauk, 2018). Therefore, students should learn and practice the implementation of EBP during their clinical practice focused on providing safe and high-quality for patients based on the evidence of research and professional expertise rather than traditional learning in classrooms (Herliani et al., 2018).

Evidence-based practice (EBP) is defined as implementing EBP application in clinical practice, which is crucial in providing the most effective approach to nursing practice (Abu-Baker et al., 2021; Chrisnawati et al., 2017). EBP helps nurses build knowledge, minimize the gap between nursing education, research, and practice, and standardize nursing practices (Stevens, 2013). EBP is essential for nurses as well as the nursing profession as it offers a wide variety of benefits for nurses to build knowledge, minimize the gap between nursing education, research, and practice, standardize nursing practices, integrate the clinical expertise from best available research

evidence, and the patient's unique values and circumstances. It improves clinical patient outcomes, improves healthcare quality, and decreases healthcare costs (Abu-Baker et al., 2021). EBP can improve healthcare quality, improve patient outcomes, and reduce healthcare costs (Empananza et al., 2015). EBP is used in the nursing curriculum worldwide to promote students' critical thinking on evidence-based practice and is needed to understand, recognize, and apply a critical attitude toward nursing students' practice (Chrisnawati et al., 2017). Therefore, the EBP can be used to increase the clinical decision-making of nursing students based on research evidence.

Educating nursing students on evidence-based practice will help develop geriatric nursing competencies. EBP factors for implementation in clinical practice, including knowledge and skills, attitudes, beliefs, and atmosphere for EBP, could be enhanced education programs for nursing students through a well-designed EBP (Kim, 2019). Moreover, EBP has been highlighted as the core competency of undergraduate nursing students and needs to be taught across nursing educational programs to prepare nursing students with essential EBP competencies (Kim, 2019). Furthermore, Perceptions toward evidence-based practice for nursing students play a significant role in supporting them in providing quality nursing care for older adults. Unfortunately, limited studies research about the perception of competencies on EBP among nursing students before preparing and supporting nursing students for clinical practicum. Therefore, this study explored perceptions of evidence-based practice competency for teaching and applying EBP during clinical practice of nursing students to be better prepared for quality care to the older adult population.

2. Method

A qualitative descriptive study presents a comprehensive summary of an event in everyday terms to explore perspectives toward the EBP competency of stakeholders in caring for older adults to gain individuals' perceptions with a deep understanding of a natural phenomenon (Sandelowski, 2000). The research question was: "What competencies are needed in caring for older adults by nursing students in an evidence-based practice?" The study was conducted from January 2023 to March 2023.

2.1 Participants

Multiple-source triangulation is believed to increase the validity and accuracy of the research outcome due to triangulation in qualitative research to achieve the proposed aims to ensure credibility, reliability, and greater scientific accuracy (da Silva Santos et al., 2020). Data triangulation is one strategy for understanding the event at different levels using two or more data sources and diverse perspectives to increase data credibility (Ong-at Naiyapat, 2005). A purposive sampling was used to select participants who had direct experiences caring for older adults about an evidence-based practice of nursing students to provide in-depth understanding to address questions (Burdine et al., 2020). A reflection of the existing background from an in-depth exploration of the participant's experience is required in this circumstance of individuals, and it will produce noteworthy findings (Thorne, 2016). Therefore, nine participants who met the criteria were invited to study EBP experiences in nursing students: three experts caring for older adults were a nurse, a doctor, and a care manager who had worked with the older adult's patient for at least ten years. Next, two nurse instructors with teaching experience must have a master's degree in adult or geriatric nursing for at least ten years and have researched evidence-based practice for at least five years. Furthermore, four stakeholders consisted of an administrator of an older adult's patient care center, an older adult's patient who graduated with less than a bachelor's degree, a family caregiver of an older adult's patient who graduated with less than a high school, and a nursing student who has completed the geriatric nursing course and have experience caring for the older adult's patient.

2.2 Data Collection

Semi-structured interviews were conducted face-to-face in a private situation with the nine participants after gaining permission and signing an agreement recognizing that the interview was recorded. An interview was approximately 45-60 minutes. The interview guides were used to collect data. Participants can withdraw from this study at any time because of human rights. Interview questions consisted of:

- 1) How do you understand "evidence-based practice and its application"?
- 2) How much do you perceive nursing students use evidence-based practice nowadays?
- 3) Could you tell me the benefits of using evidence-based practice in geriatric nursing?
- 4) Could you tell me the nursing students' current competence level in caring for older people?
- 5) What do you think about nursing students' knowledge, skills, and attitudes in providing geriatric care using evidence-based practice?

- 6) What are the critical competence areas in evidence-based geriatric nursing for nursing students? What are the details of each area?
- 7) What are the problems with using evidence-based practice in geriatric nursing for nursing students today?
- 8) What are your suggestions for developing guidelines to promote the competence of geriatric nursing in evidence-based practice for nursing students?

2.3 Data Analysis

The description studies were analyzed to support interpretations consistent with credible analysis (Burdine et al., 2020). The data was analyzed using thematic analysis to be grouped into categories by initial coding completed after studying each transcript with highlighting and constant keywords, concepts, and direct quotes used to support each theme of individual experiences (Burdine et al., 2020). Themes emerged on using evidence-based practices of nursing students in caring for older adults. Consequently, these studies were conducted with supervisors to ensure the trustworthiness to determine and acknowledge when conducting research, proposing several criteria for evaluating the trustworthiness of qualitative research (Bloomberg & Volpe, 2012).

2.4 Ethical Approval

Ethical approval was obtained from the Institutional Review Board of Srinakharinwirot University No: SWUEC-G-403/2565E. Each participant had to sign consent forms before participating in this study, which was voluntary. The participants could withdraw from this study at any time. The interview data endured confidence. The data was used only for the research objectives.

3. Results

Nine participants met the criteria: a nurse, a doctor, a care manager, two nurse instructors, an administrator of an older adult's care center, an older adult's patient, a caregiver, and a nursing student. The nine participants answered the following question regarding the evidence-based practice competency of stakeholders in caring for older adults. The information from EBP can be credible and reliable, leading to nursing competency in care for older adults. Three main themes emerged: 1) Knowledge enhancing EBP, 2) Skills driving EBP, and 3) Attitude fostering EBP. In addition, each main theme was divided into sub-themes as follows. First, knowledge enhancing evidence-based practice consisted of three sub-themes: implementing the nursing process, searching for trustworthy information, and selecting appropriate guidelines. Next, skills driving evidence-based practice included three sub-themes: nursing practice skills, critical thinking skills, and language skills. Finally, the attitude fostering EBP involved two sub-themes: increasing the quality of care for older adults and improving the nursing profession.

3.1 Knowledge Enhancing Evidence-Based Practice

The participants explained that EBP establishes a guideline for developing nursing competency by encouraging nursing students to search for the best evidence to support nursing competency. Knowledge can enhance EBP in the nursing education of nursing students. Nursing students must understand EBP well to provide the best care for older adults. However, the lack of knowledge about EBP is a severe issue that may lead to nursing students making decisions about patient care or putting patients at risk of harm. Therefore, knowledge is essential for nursing students to implement EBP in nursing care. This can be done by providing the sources to identify, process, evaluate, and apply the best available evidence to nursing practice. Three sub-themes emerged on how knowledge enhances the evidence-based practice of student nurses' competency:

3.1.1 Implementing the Nursing Process

The nursing process is a valuable tool that helps nurses care for older adults. The nursing process is also dynamic and is developed by knowledge to meet the problems and needs of older adults. Nursing students use EBP for implementing the nursing process as well as assessing the most critical data of patients, nursing diagnoses based on the patient's assessment data, planning care to identify the most appropriate and safe implements, implementing care in a way consistent with the evidence, and evaluating care using EBP to assess the implements' success and adjust as needed. Therefore, implementing the nursing process can promote the evidence-based practice competency of nursing students for older adults. As the participants said:

"Students need to know how to identify patient problems once they know the problem. Then, they can determine how to search for solutions. They know how to search or find references. They also need to have principles for evaluating the quality of the evidence they find. Then, they can select a suitable solution approach for each patient. Finally, they know how to evaluate the results to grasp whether their chosen methods effectively solve the patient's problem." (P1)

“Students must use evidence-based practice in caring for all three groups of older adults: socially active, homebound, and bedridden. This should start with assessing the problem, setting nursing objectives, planning nursing care, implementing nursing care, and evaluating nursing outcomes, according to the nursing process.” (P2)

3.1.2 Searching for Trustworthy Information

Knowledge of searching for trustworthy information is a significant component of EBP. Nursing students should know how to search and evaluate evidence from various sources to find the best available evidence to support their clinical decisions. This can improve patient outcomes and integrate the best research evidence with clinical expertise and patient values. Knowledge from searching for trustworthy information can enhance nursing student’s care for older adults. As the participants said:

“Students must be able to search or find evidence-based practice properly and accurately. They must be able to decide which data sources or websites are reliable. They must be able to use evidence-based practice in caring for older adults correctly and appropriately, and they must be able to evaluate the nursing care outcomes based on evidence-based practice.” (P4)

“Students should know to search for information on caring for older adults from textbooks or research. They should be able to select appropriate information for each older person to care for older adults. (P5)

“Students should know to use evidence-based practice for searching trustworthy information to investigate problems, causes, and solutions successfully applied to solve problems for older adults that we need to care for.” (P6)

3.1.3 Selecting Appropriate Guideline

Knowledge from evidence-based practice can help develop nursing competency in selecting appropriate guidelines for nursing students in care for older adults. Using evidence-based practice to select appropriate guidelines, nursing students can decide which is best for providing the appropriate care for older adults. As the participants said:

“Using evidence-based practice will help nursing students know how to select appropriate guidelines in solving problems depending on a moral, logical, and evidence-based method in care for older adults.” (P1)

“Nursing Students must know what to plan to use by considering from context or components. Finally, they can select the evidence-based practice to use appropriately for each older person.” (P5)

“The older adults are vulnerable. Using evidence-based practice or appropriate plan for the elderly will create confidence in care, help to ensure safety in care, and create quality care for older adults.” (P7)

3.2 Skills Driving Evidence-Based Practice

Skill driving EBP was a concern of the participants regarding the ability to search and critically evaluate for evidence. It is essential to develop the competency of nursing students in a way that is both effective and clinically appropriate. This requires integrating the evidence with the older person’s needs and preferences. Skills driving EBP are a complex and challenging process for providing competency in care to older adults of nursing students. Therefore, nursing students should develop nursing competency with EBP skills, including nursing practice, critical thinking, and language skills. Three sub-themes emerged on what skills improve student nurses’ competency:

3.2.1 Nursing Practice Skills

The nursing practice of nursing students is concerned with the skills in EBP. Nursing practice skills are necessary to encourage all nursing students to provide safe and effective care for older adults. Nursing practice skills are the basis of EBP, a crucial part of nursing students’ competency for developing quality care for older adults. Moreover, nursing practice skills are the technical skills that nursing students use to perform care or implement care that meets individual needs and make patient changes by responding to care and adjusting. As the participants said:

“Nursing practice skills are continuously changing from the past to the future because of EBP, relevant and reliable data, and the best knowledge appropriate with older adults’ problems for providing caregivers benefits, safety, and quality for older adults.” (P1)

“The older adults are vulnerable people. Using the best available evidence and practices to care for older adults will create confidence in care to ensure older adults’ safety in care and create quality of care.” (P6)

“Nursing care will improve EBP of quality and safety for the older adults.” (P2)

3.2.2 Critical Thinking Skills

Critical thinking skills are essential for developing nursing students' competency in EBP skills. Nursing students need to be able to think critically to provide safe and effective care to older adults. Nursing students must assess older adults' needs until nursing evaluations. Nursing students also need to be able to think critically about searching literature on evidence-based practices. Nursing students use critical thinking skills to search for evidence to answer questions. Consequently, nursing students appraise the review of the quality of the study with no substantial biases. Therefore, critical thinking skills play a significant role in EBP to develop nursing students' nursing competency. As the participants said:

"Evidence-based practice requires training nursing students to think critically and creatively and to create activities that make nursing students happy." (P1)

"To adapt to changing situations and use innovative methods, processes, and concepts to improve work." (P9)

"Evidence-based practice will help nursing students solve problems based on principle, reason, and evidence using search principles, such as PICO or PICOT, as a guide for their research." (P2)

3.2.3 Languages Skills

Language skills are also crucial for EBP in the general sense. Nursing students need to be able to read and understand the research literature to share knowledge and experience in developing the competency of nursing students. Language skills can be used to recite journal articles, books, and other resources on evidence-based practice and other healthcare subjects that will help nursing students expand their knowledge to provide safe and effective care to older adults. As the participants said:

"Most research database searching will search from Thai rather than English-language databases." (P2)

"Nursing students should have English skills at a level that allows them to search journals or articles from international databases and be able to read journals or articles understanding." (P1)

"Evidence-based practices must be chosen with science and art in mind to provide the best care for older adults." (P8)

3.3 Attitude Fostering Evidence-Based Practice

The participant perceived that an evidence-based practice is also essential for nursing students to provide the learning methods of nursing students. Attitude can improve decision-making based on the best available EBP, including research findings, clinical expertise, and citations. Nursing students can develop competency by seeking opportunities to learn about EBP, including taking courses, attending workshops, and reading journals or articles on EBP. The participants perceived that attitude fostering EBP can help nursing students receive experiences to promote professional competency. Two sub-themes emerged on attitudes fostering EBP:

3.3.1 Increasing the Quality of Care for Older Adults

EBP was to increase the quality of care for older adults. Nursing students who used EBP early in training are more likely to have positive attitudes toward EBP in practice to increase competency and the quality of care for older adults. Therefore, it can be seen that a positive attitude fostering the EBP of nursing students in nursing education can increase competency in the quality of care for older adults. As the participants said:

"Using evidence-based practice is beneficial because it can be used in working and developing care for older adults. It keeps us up-to-date with changing situations and provides new approaches, processes, and concepts to help us work." (P6)

"Using evidence-based practice is valuable and vital to nursing care for older adults because it will help improve their quality of care. This is because older adults need to be cared for, promoted health, and prevent diseases and complications from chronic diseases to maintain health and take care of themselves for as long as possible." (P4)

3.3.2 Improving the Nursing Profession

A positive attitude fostering EBP in studying is crucial in improving competency and advancing nursing students' nursing practice. Attitude fostering EBP can assist in generating new evidence to improve nursing competency, including accessing high-quality education programs by applying EBP to practice and providing nursing students with the resources in care for older adults that improve nursing competency. As the participants said:

"Using EBP can develop guidelines to increase the quality of nursing and create lifelong learning skills, which

is another way to develop the nursing organization.” (P1)

“EBP must be accepted as evidence that it is effective, creates good results, and is beneficial in providing nursing care.” (P3)

4. Discussion

Nine participants met the criteria: a nurse, a doctor, a care manager, two nurse instructors, an administrator of an older adult's care center, an older adult's patient, a caregiver, and a nursing student answered the following question regarding the EBP competency of stakeholders in caring for older adults to truthfully understand the challenges present in consuming research references in EBP (Fulcher-Rood et al., 2020). Three main themes emerged: 1) Knowledge enhancing evidence-based practice with three sub-themes: implementing the nursing process, searching for trustworthy information, and selecting appropriate guidelines; 2) Skills driving evidence-based practice with three sub-themes including nursing practice skills, critical thinking skills, and language skills; and 3) Attitude fostering evidence-based practice with two sub-themes as well as increasing the quality of care for older adults and improving the nursing profession as follow:

Knowledge enhancing evidence-based practice consists of using the nursing process, searching for reliable sources, and appropriately selecting nursing guidelines. Providing quality patient care increased by knowledge supported by research evidence (Estalella et al., 2023). Students' knowledge and practice improved and changed into clinical practice settings after structured case conferences using EBP (Häusler et al., 2023). In addition, searching from various sources that attempt to use higher quality scientific evidence in peer-reviewed journals, practice documentation guidelines, and other evidence is critical to recommended implementation in clinical practice (Fulcher-Rood et al., 2020). However, the main problem with the widespread implementation of evidence-based practice among nurses is the limited knowledge in implementing EBP (Saunders et al., 2019).

Skills driving evidence-based practice include nursing practice, critical thinking, and language skills. EBP skill is an approach to health care yielding patient benefits by associations with the best available evidence identified as effective in the literature (Cook et al., 2010; Cleary et al., 2021). EBP was more effective in developing critical thinking among nursing students regarding clinical decision-making after students collected evidence (Estalella et al., 2023; Dolezel et al., 2021; Cui et al., 2018). Moreover, language skills were a reliable measure of language abilities identified as an essential academic success of evidence-based practice (Coughler et al., 2023). Meanwhile, limited proficiency in EBP skills is the main barrier to extended EBP implementation among nurses (Saunders et al., 2019). Nevertheless, integrating crucial appraisal of the journal with more content on EBP concepts could improve future knowledge, attitudes, and use of EBP (Häusler et al., 2023).

Attitude, consisting of increasing the quality of care for older adults and improving nursing, fosters EBP. Attitudes toward EBP of nursing students are changed after the completion of the conferences (Häusler et al., 2023). Moreover, positive attitudes can enhance EBP for care to older adults with complications because nursing professionals are recognized more for their role in supporting, providing, and caring for older adults; enhancing continuous education to facilitate role clarity for nurses in geriatric rehabilitation could improve the competency of nursing students in the possible contributions of nursing (Klein et al., 2022; Guitar et al., 2023). On the other hand, EBP is enhanced among nursing students who still lack the clinical experience to support decisions made (Estalella et al., 2023).

5. Conclusion

Three main themes emerged from nine participants who perceived the EBP competency of nursing students in caring for older adults consisting of 1) knowledge enhancing evidence-based practice with three sub-themes: implementing the nursing process, searching for trustworthy information, and appropriately selecting appropriate guidelines; 2) skills driving evidence-based practice with three sub-themes including nursing practice skills, critical thinking skills, and language skills; and 3) attitude fostering evidence-based practice with two sub-themes as well as increasing the quality of care for older adults and improving the nursing profession.

6. Limitations

The limitation of this study on the EBP competency of nursing students in caring for older adults in this study emerged from only nine participants. However, these competencies of nursing students may have different experiences depending on the context that may have affected their perceptions. Therefore, the following study should confirm factor analysis of the EBP competency of nursing students in caring for older adults that emerged to apply the EBP competency effectively in the future.

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Acknowledgments

We sincerely thank all nine participants for their precious time in interviews. Moreover, we thank Dr. Chularat Hawhan and Dr. Matanee Radabutr for providing time and suggesting this study.

Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Informed consent

Obtained.

Ethics approval

The Publication Ethics Committee of the Canadian Center of Science and Education.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

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