

Preceptors' experiences in guiding nursing students to use research findings and to implement evidence-based practice[†]



Original article

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Abstract: **Objective:** Evidence-based practices (EBPs) have been taught to students by identifying the best evidence/evidence from research results. However, the experiences of Indonesian nurse preceptors in helping students implement research findings have not been explored thoroughly. This study aimed to explore Indonesian nurse preceptors in guiding nursing students to use research findings. **Methods:** This study used interpretive phenomenology analysis that involves 9 nurse preceptors from hospitals in West Kalimantan, Indonesia. Semi-structured in-depth interviews were recorded and then transcribed verbatim. **Results:** Three themes were generated during the analysis: "types of student supervision," "issues during supervision," and "the need for research literacy and supervision." **Conclusions:** Nurse preceptors need support to supervise the nursing students to use research findings. In addition to upgrading nursing skills, nurse preceptors must receive training in research and its utilization. Developing an appropriate strategy to assist students in using research findings will enhance the promotion of evidence-based nursing practices on a daily basis.

Keywords: evidence based practice • Indonesia • nurses • nursing students • phenomenology

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1. Introduction

Evidence-based practice (EBP) is a process in which nurses make clinical decisions according to the best research results, clinical expertise or patient preferences, and available resources. EBP should exist

within a nursing framework and be used as a tool that serves as a guide to providing nursing care to patients in a step-by-step manner. EBP is recognized by nurses as an important and useful aspect of daily nursing practice.

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However, the implementation of EBP among nurses is still low. A prior study identified factors that influence the understanding and use of EBP, namely, the value of activism, professionalism, and competence that leads to the development and the professionalism of nurses. This study also found that nurses had insufficient knowledge about the ways to apply EBP.¹ Thus, increasing knowledge and skills in EBP is very necessary for nurses.

The term "evidence-based practice" has begun to be frequently used in the last 10 years, especially in nursing practices in Indonesia. During the 1990s when EBP began to become the focus of research development, EBP in Indonesia was not known or developed. After 2005, EBP began to be promoted in nursing education, especially through systematic reviews. Then, EBP was introduced into almost every nursing course, namely, the concept and the ways to identify the best evidence/evidence from research that could be used in daily nursing practices.

From the various types of research, basic research, applied research, and development research, the one that can be used for EBP is applied research. In addition, development research can use EBP for service evaluation or to produce a new or better service system. According to the EBP perspective, patients who receive nursing that uses research (research-based intervention) have better outcomes than those who receive routine care. In this case, the clinical evidence, the facts, and the research results are included in the evidence.

The application of EBP is beneficial in increasing efficiency and in providing better outcomes for patient care. In addition, by implementing EBP, nurses ensure their nursing practice is up to date, which assists them in making the best clinical decisions for their patients. A prior study identified the need for nursing students to apply EBP during clinical experiences even though, during their studies, students are assisted to use EBP by lecturers and teaching staff. This requires collaboration between academics and lecturers and practitioners and clinical instructors so that there are no obstacles to using EBP.²

The experiences of nurses in helping and teaching students to implement EBP have not been explored thoroughly, so introducing the right methods and approaches for implementing EBP during clinical practice cannot be done appropriately. Identifying the extent to which nurses support students to implement EBP is very important to help achieve an increase in the quality of nursing practice care because the best evidence-based nursing practices will provide better nursing services than those that do not use it. Given that the ways that students apply EBP during clinical practice and the role of preceptors in helping with this have not yet been

identified, the researchers were interested in conducting a research study that explored the processes that are carried out by nurse clinicians to help nursing students to use EBP during their nursing practice in public hospitals. Knowing the supporting and the inhibiting factors of EBP implementation will help academic and clinician nurses to formulate appropriate methods to help students to carry out the best and latest EBP.

The purpose of this research was to explore the process that clinical instructor nurses go through to help students implement EBP. There is one general question that is answered through this research, namely how do nursing clinical instructors support students to implement EBP? The specific questions addressed by this study are:

1. What are the characteristics of nursing clinical instructors or preceptors?
2. What is the role of nursing clinical instructors or preceptors in the implementation of EBP by students?
3. What preparations do nursing clinical instructors or preceptors make for the implementation of EBP by students?
4. What are the supporting and inhibiting factors for students to implement EBP?
5. What needs of nursing clinical instructors or preceptors are not met during the implementation of EBP by students?

2. Methods

The researchers used an interpretive phenomenology analysis research design to guide the data collection process. Before the data were collected, this study was approved by the human ethics research committee from the Faculty of Medicine (Number 2989/UN22/9/PG/2022) and by the public hospital in Pontianak (Number 46/RSUD/KEPK/V/2022). We ensured that the data collection process followed ethical principles. First, we asked for the participants' consent and explained the purpose of the study and the participants' right to participate voluntarily or not participate. The inclusion criteria of the participants were nurse clinicians and those who have had roles as a clinical instructor or preceptors for the undergraduate nursing students during their clinical placement. Meanwhile, less than 2 years of experience as a clinical instructor or preceptor was the exclusion criterion of the study. The participants were selected by using sampling method purposefully.

Nine interviews were recorded in the data collection process. We used a voice recorder device to record interviews of the participants who came from

two general hospitals in the city. The researcher generated in-depth semi-structured interviews for which the participants determined the time and the location. The interviews were then transcribed verbatim to generate codes, categories, and themes. The data were analyzed using the principle of interpretative phenomenological analysis.³ During the analytical process, we involved previous and incoming participants to provide feedback on the narrative writing as part of the study findings. Narrative writing is a form of explanation of the study findings generated from the collected data to describe the themes developed from the analysis. We use a code when quoting the participants.

3. Results

The nurses that were involved in this study have varying years of experience as a preceptor. The longest period of supervising nursing students was 10 years. Of the 9 preceptors, only two nurses had not yet been involved in preceptorship training. This study shows that 3 themes emerged from the analytical process. The themes are “types of student supervision,” “issues during supervision,” and “the need for research literacy and supervision.”

3.1. Types of student supervision

When providing guidance to students, nurses focus more on using student skills than on using research results on patients. Students consult the clinical supervisor about relevant articles on the actions to be performed on the patients. The nurse chooses a cooperative patient who meets the learning achievement target and directs nursing actions to students and asks colleagues to also give directions to students. Guidance is carried out according to the module because nurses consider that students have gained a lot of knowledge from their studies. Nurses stated that they received a lot of new information about research from students. The nurses hope that during the discussion process, students have appropriate and up-to-date references. To apply research results, it is necessary to consider whether the patient is cooperative and the time is sufficient.

The students showed me the journal articles to see the possibility of using the research findings for the patients. They ask for my consideration. We need to ensure that the intervention is safe for the patient. (P1)

The students first explained to us what their objectives were. We help the students find the patients who are available and willing. Not only the patients, we also need to ask permission from the family caregiver. (P2)

I have no problem with it [in supervising the student to use research findings]. If they are not familiar with the

item, we demonstrate it to them either directly or through the [video on a] laptop. The students need to frequently read journal articles and to increase their skills in nursing intervention. (P7)

3.2. Issues during supervision

The obstacles that are faced by nurses in guiding the use of research results are limited time and reporting of results of practice that is not neat. In addition, students often do not ask questions and do not initiate discussions with the nurses, so the nurses assume that the students already know everything. In taking action, nurses felt that the students lacked courage and self-confidence. Given the busyness of nurses, nurses are limited in demonstrating direct action.

I emphasize the nursing skills that they need to improve. In relation to the research aspects, the focus is on how they write the introductory report to explain the fundamental knowledge of patients' disease and its nursing care. (P4)

Sometimes, I just share my advice without directly demonstrating how to use a device, for example. I only meet the students during supervision because of time limitations to interact with the students. (P1)

3.3. Need for research literacy and supervision

Nurses felt that they need to have adequate literacy to help them carry out guidance to students. They need training on case studies and accessing relevant journals. In addition, they need to know how to report a study accompanied by increased writing. Access to references in the form of journals is needed, including access to international journals as a provision of conducting guidance for students in the use of research results on patients.

We have a lack of knowledge about the research and its utilization. I hope we sit together [with the nurse from the university] to discuss patient care and we will obtain more knowledge through seminars or studying the case. We must advance our knowledge to improve our nursing competency. (P3)

We need to also upgrade our skills as preceptors because knowledge is more comprehensive than several years ago. (P6)

4. Discussion

EBP is a very important component of supporting the improvement of the quality of nursing care in which nurses need appropriate expertise and skills to obtain information about EBP to guide the care that they will

provide.⁴ One important component in achieving an improvement in the patient's outcome during the nursing process is facilitated through the best available clinical evidence. Nurse's clinical expertise and the patient's assessment and expectations may also influence to improve patient's outcome.

The EBP process should be included in a nursing care framework that is known as the nursing process so that EBP can be used as a functioning tool to direct or guide nurses in providing nursing care to patients in stages. There are 6 stages of EBP that must be carried out before the clinical evidence or the research results can be used in daily practice. These are "questioning daily practice," "formulating the question," "looking for the best study or research results," "analyzing the findings," "applying the findings," and "retesting the process."

Students' attitudes and the support from the surrounding environment, including teachers (lecturers and clinical instructors), are factors that can influence the use of EBP.⁴ Nursing students acquire knowledge about EBP while in lectures, either through special research methodology courses or in any nursing subject that has a learning outcome of understanding the concept of EBP and conducting evidence searches through systematic literature reviews and systematic reviews. Furthermore, to be able to apply EBP, students need to have examples of real care cases that can improve goals in using EBP: for finding related clinical evidence and for applying this clinical evidence in daily nursing practice. For this reason, the clinical experiences of students during clinical practice in the academic stage and during professional nursing education practice is the right period for students to apply the EBP concept and its use in treating patients.

A study conducted by Ruppel and Bone⁵ identified the need for interactive learning in a team so that students better understand the use of EBP and where to apply EBP. A clinical situation (it can be in the form of a scenario) is needed to enhance student learning about EBP. EBP is a core pillar of nursing education and one that students are expected to implement during their clinical practice. However, students still have difficulties in conceptualizing the use of EBP in clinical practice regardless of developing the required EBP competencies.⁶ For this reason, the roles of academic nurses (lecturers) and clinical nurses (clinical instructors) are very important in supporting students to implement the use of EBP while caring for their patients.

In addition to the involvement of educational institutions such as a school of nursing and nurse clinicians in using EBP, a culture that supports nurses and students to implement EBP and collaboration between academics and practitioners will assist students in using EBP essentially.⁷ For this reason, it is important that

policymakers assist students and nurses through support and infrastructure so that they can adopt EBP in the area of health services, especially nursing.⁷

Nurses may not clearly report how they have implemented using EBP. However, Halberg et al.⁸ found that nurses who carry out EBP can be identified through their activities that show outcomes or results that are supported by management. The search for evidence is very important in understanding EBP theoretically but it is not yet an integral part of their daily work assignments.⁸ For this reason, it is necessary to integrate the daily work of nurses, which includes the implementation of EBP. Nurses consider time a barrier to guiding nursing students during their clinical experience.⁹ Nurses need to be aware of the limitations in implementing EBP.¹⁰ The influence of culture on patients' attitudes and preferences (selection) for a nursing action and the lack of nurses' professional knowledge affect misunderstandings and the use of EBP in nursing practices.¹⁰

4.1. Implication of the study

This study has highlighted the importance of enhancing skills in the use of research evidence in daily nursing practice. These skills are vital not only when they manage nursing care, but also when they, as nurse educators, guide their preceptees during clinical placements. Another implication is that nursing education institutions should carefully prepare their students to be familiar with the use of research evidence and thus be prepared to develop EBP to improve the quality of nursing practice and patient outcomes. Students and nurse educators can be encouraged to actively seek out and evaluate current research prior to implementation in daily practice.

The strengths of the study include the use of a valuable framework to capture the nurse preceptors' experiences of supervising students in the utilization of research. In spite of the barriers they encountered, they were aware of the importance of using research evidence in everyday practice. Another innovation of the current study is that we used a distinctive way of analyzing the qualitative data by involving previous and subsequent participants to provide feedback on the study findings through the dissemination of narrative writings. This study has a limitation by only involving participants from two main hospitals even though these are hospitals in the city where there are a number of nursing students who have clinical placement. Therefore, involving a greater number of hospitals that serve as practice areas for nursing students will provide a clearer picture of the guidance to students in applying the research findings and the obstacles encountered by nurses who act as preceptors.

5. Conclusion

In implementing EBP, nurses and nursing students need support so that the implementation of research is in accordance with the goals of improving nursing care and of patients receiving the best results when undergoing treatment. The supporting factors are an understanding of the concept of EBP and the skills to appreciate the research results. This is because before they can use the best research results, nurses need to know how to identify the best research results that can be used for patients according to their conditions. The application of EBP is a guideline and a policy to support the structure of health services, although sometimes it can hinder autonomy in clinical decision-making. Future research is needed to develop an approach for the ways that preceptors can introduce and guide nursing students in using research.

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Author contributions

The conception and design of the study: TL, SN, NY, and YP. Acquisition of data: TL, SN, NY, and YP. Analysis and interpretation of data: TL, SN, NY, YP, CK, and EM. Drafting the article or revising it critically for important intellectual content: TL, SN, NY, YP, CK, and EM. Final approval of the version to be submitted: TL, SN, NY, and YP.

Ethical approval

This study was approved by the human ethics research committee from the Faculty of Medicine (Number 2989/UN22/9/PG/2022) and by the public hospital in Pontianak (Number 46/RSUD/KEPK/V/2022). Ethical issues are not involved in this paper.

Conflicts of interest

All contributing authors declare no conflicts of interest.

References

1. Skela-Savič B, Hvalič-Touzery S, Pesjak K. Professional values and competencies as explanatory factors for the use of evidence-based practice in nursing. *J Adv Nurs*. 2017;73:1910–1923.
2. Malik G, McKenna L, Griffiths D. Using pedagogical approaches to influence evidence-based practice integration – processes and recommendations: findings from a grounded theory study. *J Adv Nurs*. 2017;73:883–893.
3. Eatough V, Smith JA, Shaw R. Women, anger, and aggression: an interpretative phenomenological analysis. *J Interpers Violence*. 2008;23:1767–1799.
4. Ryan EJ. Undergraduate nursing students' attitudes and use of research and evidence-based practice: an integrative literature review. *J Clin Nurs*. 2016;25:1548–1556.
5. Ruppel KJ, Bone BA. Teaching evidence-based practice: knowledge to implementation in a BSN program, part 1. *Worldviews Evid Based Nurs*. 2022;19:245–250.
6. Lam CK, Schubert C. Evidence-based practice competence in nursing students: an exploratory study with important implications for educators. *Worldviews Evid Based Nurs*. 2019;16:161–168.
7. Malik G, McKenna L, Griffiths D. Envisaging the use of evidence-based practice (EBP): How nurse academics facilitate EBP use in theory and practice across Australian undergraduate programmes. *J Clin Nurs*. 2017;26:2669–2679.
8. Halberg N, Assafi L, Nørholm V. Understandings of and experiences with evidence-based practice in practice among nurses in a surgical department: a constructivist approach. *J Clin Nurs*. 2021;30(3–4):3–4.
9. Brooke JM, Mallion J. Implementation of evidence-based practice by nurses working in community settings and their strategies to mentor student nurses to develop evidence-based practice: a qualitative study. *Int J Nurs Pract*. 2016;22:339–347.
10. Fu Y, Wang C, Hu Y, Muir-Cochrane E. The barriers to evidence-based nursing implementation in mainland China: a qualitative content analysis. *Nurs Health Sci*. 2020;22:1038–1046.