

mgr Jarosława Belowska

**RESEARCH IN NURSING PRACTICE - ASSESSMENT OF IMPACT OF DISTANCE
LEARNING ON NURSING KNOWLEDGE AND ATTITUDES TOWARDS EVIDENCE-
BASED PRACTICE**

Streszczenie w języku angielskim

Introduction

The constant progress of medical science worldwide contributes to a constant growth in demand for qualified nursing staff. One of the basic conditions for the development of nursing profession is the scientific activity undertaken by nurses themselves. In accordance with global trends, modern nursing practice should be based on scientific evidence to ensure the most effective care and patient safety. A systematic and consistent use of reliable and up-to-date research data in everyday practice increases safety of patients and medical personnel as well as improves the effectiveness of medical procedures applied and lowers the costs incurred. In addition, regular acquisition and updating of knowledge enhance awareness about the efficiency and effectiveness of own actions, widen the perspective of a particular clinical situation, provide an opportunity to introduce innovations to patient care on the basis of reliable studies, and increase general job satisfaction.

Pre-graduate and post-graduate education of prospective nurses and development of new skills and competences are increasingly taking place with the use of distance learning techniques. In addition, having a number of advantages over traditional methods, e-learning is gaining in popularity. Research has demonstrated the effectiveness of "blended-learning" in nursing, where well-developed teaching materials using distance education techniques allow for keeping interest and motivation of students in such a way that they themselves become

constructors of their knowledge and may efficiently use their experience and expertise in the future as the cornerstone of the professional and modern nursing.

Aims of thesis

The main aim of the thesis was to analyse knowledge of, attitudes towards, and skills in Evidence-Based Practice among nurses and nursing students on the basis of a review of nursing research literature and then to assess the influence of distance learning on knowledge and attitudes towards these issues.

Specific objectives:

1. An analysis of the Polish scientific literature on Evidence-Based Nursing Practice.
2. A review of the world nursing research literature on Evidence-Based Nursing Practice.
3. Assessment of the current state of knowledge of and attitudes towards Evidence-Based Practice among selected groups of nurses and nursing students.
4. Establishment and implementation of a modern teaching tool in the form of a distance training course on Evidence-Based Practice.
5. Attempt to assess the effectiveness of an e-learning course conducted for midwifery students.

A series of monographs constituting the doctoral thesis

Publication I - Use of Evidence-Based Practice in selected groups of health science professionals - review of world literature. Journal of Public Health, Nursing and Medical Rescue 2014; (4): 14-19. This study is an introduction to a series of publications. It provides a review of the literature on evidence-based practice of professionals in health sciences by analysing the Polish and world literature. The largest number of publications concerned the use of most recent research findings by disciplinary teams and in nursing.

Publication II - Evidence-Based Medicine and Evidence-Based Nursing Practice - a review of the Polish scientific literature Problemy Pielęgniarstwa 2014; 22 (2): 223-227. This publication analysed the current review of the Polish research literature on EBM and EBP in nursing. There is still an insufficient number of articles on EBM and EBP: the largest number of publications is devoted to the use of research findings in clinical practice of doctors of different specialties. However, the insufficient number of articles covering the present issue in health sciences is noticeable.

Publication III - Knowledge and attitudes of nurses towards using study results in everyday clinical practice – preliminary report Problemy Pielęgniarstwa 2014; 22 (3): 281-287. The article discussed an extended focus study conducted as a structured interview with 21 bridging students of nursing. None of the study participants defined the acronyms EBM and EBP correctly or knew any available scientific journals devoted to nursing. Factors limiting the possibility of using the most recent study results in daily clinical practice included: the lack of time, insufficient knowledge of English and access to the Internet, as well as working at the position that makes taking decisions impossible.

Publication IV - Comparison of knowledge of and attitudes towards the use of scientific research in clinical practice between departmental and chargé nurses Polish Journal of Public Health 2014;124(3): 138-144 2014;124(3): 138-144. This article compared the knowledge of and attitudes towards EBP between departmental and charge nurses on the basis of a structured interview. Despite the fact that most nurses in both groups were aware of the benefits resulting from using EBNP, a majority of them did not have the basic knowledge of the criteria for assessment of reliability of scientific literature and scientific journals for nurses.

Publication V - Evidence-Based Practice Profile Questionnaire — reconstruction accuracy of the questionnaire used for assessment of knowledge, attitudes and skills with respect to EBM and EBP among Polish nurses. Problemy Pielęgniarstwa 2015; 23 (3): 314-323. The study assessed the reliability of Evidence-Based Practice Profile Questionnaire (EBP²Q) used for further studies as part of the series of publications. The results allowed for assumption that the proposed Polish language version of the questionnaire is a reliable tool and may be used

for a reliable measurement carried out among the Polish population of male and female nurses during specialisation.

Publication VI - Knowledge of and attitudes towards Evidence-based Medicine and Evidence-Based Nursing Practice among nursing students. Polish Journal of Public Health 2015; 125 (4): 201-204. This is the first in the series of papers that employed the EBP²Q questionnaire. The study aimed to analyse the knowledge of and attitudes towards Evidence-Based Practice and involved a total of 127 students of a second-cycle programme in nursing at the Medical University of Warsaw. It showed that their knowledge in this regard was far from sufficient.

Publication VII - Promoting Evidence-Based Practice: perceived knowledge, behaviours and attitudes of Polish Nurses in creating EBP Profile. International Journal of Occupational Safety and Ergonomics; *in print*. The paper presented results of a study carried out among 548 nurses during their specialisation in the Postgraduate Training Centre for Nurses and Midwives. The study sought to reflect the current state of knowledge and awareness of Evidence-Based Practice in the modern Polish nursing. The analysis demonstrated a significantly low level of knowledge of and skills in EBNP among nursing specialists.

Publication VIII - Evidence-Based Practice (EBP) in professional nursing practice – analysis of knowledge, attitudes, and skills by education level. Problemy Pielęgniarstwa 2016; 24 (2): 98-105. A total of 820 nurses (n=306 with secondary medical education, n=265 with a first-cycle degree, and n=249 with a second-cycle degree) took part in this study. It was found that the level of education of the study participants had an impact on their understanding of the term Evidence-Based Practice and its role in nursing. The respondents with first-cycle and second-cycle degree significantly more often used electronic scientific literature databases and read results from published studies than nurses with a secondary medical education.

Publication IX - Job tenure and knowledge of and attitudes towards Evidence-Based Practice among nurses taking a specialty examination organized by the Postgraduate Training Centre for Nurses and Midwives Pielęgniarstwo Polskie 2016; 3: 340-346. The study aimed to assess the impact of job tenure of nurses on their knowledge of and attitudes towards EBP using the

EBP²Q questionnaire. Among the study group of 389 nurses the job tenure had no influence on their knowledge of and attitudes towards Evidence-Based Nursing Practice.

Publication X - Development of skills of nurses and midwives with respect to the application of research results in professional practice. Presentation of innovative training methodology with the use of e-learning course. Journal of Public Health, Nursing and Medical Rescue; *in print*. The study suggested that there were certain gaps in the education system as well as insufficient understanding of Evidence-Based Nursing Practice among nurses. With the use of modern teaching technologies, a tool supporting the education about EBP in nursing was designed and proposed for implementation. An e-learning course comprising six extended thematic modules directly related to EBNP was developed on the Moodle™ platform.

Publication XI - Effectiveness of training in Evidence-Based Practice with the use of e-learning Moodle™ platform for students of the Medical University of Warsaw – a pilot study. Współczesne Pielęgniarstwo i Ochrona Zdrowia 2017; 2(6): 43-49. The study presented a designed and introduced tool being a web-based course on the Moodle™ platform. This pilot study involved midwifery students (n=49) of a second-cycle programme at Warsaw Medical University, whose knowledge and attitudes were evaluated before and after the course. The analysis showed that learning with the use of a structured e-learning course in EBP constituted an efficient learning method for WMU students.

Conclusion

The series of monographs presented here demonstrates the current knowledge of and attitudes towards Evidence-Based Practice among nursing students and practising nurses in Poland. Insufficient knowledge of nurses about EBP results not only from an insufficient number of hours devoted to the methodology of research in nursing during the vocational training, but also from system constraints that exist in professional nursing practice. The series of publications constituting the present doctoral thesis is a review of Polish and world nursing literature as well as a reference to the current knowledge of nursing students and nurses themselves as well as their attitudes towards and skills in searching for scientific evidence and its use in working with patients. The development of the e-learning course and the attempt to

assess the effectiveness of modern distance learning techniques in nursing showed that the contents of and materials for e-learning courses were most satisfactory and efficient as compared to traditional training, by providing an opportunity to use the present findings in practice to improve educational techniques both for university training at the first- and second-cycle programmes and post-graduate training of nurses.