

# KNOWLEDGE AND ATTITUDES OF NURSES AFTER COMPLETION OF SPECIALIST TRAINING IN PALLIATIVE NURSING CARE AGAINST EVIDENCE-BASED PROFESSIONAL PRACTICE

## WIEDZA I POSTAWY PIELĘGNIAREK PO UKOŃCZENIU SZKOLENIA SPECJALIZACYJNEGO Z PIELĘGNIARSTWA OPIEKI PALIATYWNEJ WOBEC PRAKTYKI ZAWODOWEJ OPARTEJ NA DOWODACH NAUKOWYCH

Jarosława Belowska<sup>1</sup>, Aleksander Zarzeka<sup>1</sup>, Mariusz Panczyk<sup>1</sup>, Barbara Kot-Doniec<sup>2</sup>, Halina Żmuda-Trzebiatowska<sup>2</sup>, Joanna Gotlib<sup>1</sup>

<sup>1</sup> Division of Teaching and Outcomes of Education, Faculty of Health Sciences, Medical University of Warsaw, Poland

<sup>2</sup> Centre for Post-graduate Education of Nurses and Midwives, Warsaw, Poland

### ABSTRACT

**Introduction and aim.** The growing number of palliative-care-requiring patients in Poland, which is related to the growing length of life, generates a need for specialized nursing staff. New methods of treatment and approach to a terminal-stage patient require that nurses, being independent service-providers, gain knowledge of evidence-based practice. Assessment of the knowledge and ability to apply evidence-based practice (EBP) by nurses after their completion of specialist training in palliative care nursing.

**Material and methods.** 152 nurses taking part in a specialty examination in palliative care nursing (5 men); mean age: 40.23 (min. 27, max. 65, SD = 6.68), mean length of work: 18.01 yrs (min. 4, max. 37, SD = 7.98). 31% worked in a public hospital, 63% full-time, 43% as senior nurses. 30% had a master's degree in nursing. Standardized *Evidence-based Practice (EBP) Profile Questionnaire*, quantitative and qualitative analysis.

**Results.** Only 39% of the nurses are aware of the importance and development of EBP in nursing and benefits resulting from its application. 23.5% have never assessed the methodological correctness of the scientific literature used and referred it to their own diagnosis (15%). 27% do not know the meaning of the term *odds ratio* and 21% have never come across the term *forest plot*. 39% declare the ability to gain access to scientific evidence and make use of electronic databases of scientific literature (36%). In making proper clinical decisions in their professional practice, nurses appreciate clinical practice more than results of scientific studies (44%).

**Conclusions.** 1. In connection with a foreseen growing demand for nursing services in the field of palliative care, there is a need to urgently complement and improve the knowledge and skills of nurses with respect to the use of the latest results of scientific research in their professional practice.

2. The absence of knowledge of the methodology of scientific research among nurses requires systemic changes in education in the field of nursing as well as in the curricula of specialist post-graduate education.

**KEYWORDS:** evidence-based medicine, evidence-based nursing practice, nursing, safety, nursing care quality.

### STRESZCZENIE

**Wstęp i cel.** Wzrastająca liczba chorych w Polsce wymagających opieki paliatywnej, w związku z wydłużeniem życia, wskazuje na konieczność wzrostu liczby wyspecjalizowanej kadry pielęgniarskiej. Nowe metody leczenia i postępowania z pacjentem w stanie terminalnym wymagają uzyskania przez pielęgniarki, jako samodzielnych świadczeniodawców, wiedzy związanej z praktyką pielęgniarską opartą na faktach naukowych. Ocena wiedzy, postaw i umiejętności zastosowania Evidence-based Practice (EBP) przez pielęgniarki po odbyciu szkolenia specjalizacyjnego z pielęgniarstwa opieki paliatywnej.

**Materiał i metody.** 152 pielęgniarki biorące udział w egzaminie specjalizacyjnym z pielęgniarstwa opieki paliatywnej (5 mężczyzn); średni wiek 40,23 lat (min. 27, max. 65, SD = 6,68), średni staż pracy 18,01 lat (min. 4, max. 37, SD = 7,98). 31% pracowało w szpitalu publicznym, 63% na pełny etat, 43% jako starsze pielęgniarki. 30% posiadało tytuł magistra pielęgniarstwa. Standaryzowany kwestionariusz *Evidence-based Practice (EBP) Profile Questionnaire*, analiza ilościowa i jakościowa.

**Wyniki.** Jedynie 39% pielęgniarek ma świadomość znaczenia i rozwoju EBP w pielęgniarstwie i korzyści wynikających z jego stosowania. 23,5% nigdy nie oceniło poprawności metodologicznej wykorzystanej literatury naukowej oraz nie odniosło jej do własnej diagnozy (15%). 27% nie zna znaczenia terminu *iloraz szans*, a 21% nigdy nie spotkało się z pojęciem *wykres leśny*. 39% deklaruje umiejętność uzyskania dostępu do dowodów naukowych oraz korzystania z elektronicznych baz piśmiennictwa naukowego (36%). W podejmowaniu właściwych decyzji klinicznych w swojej praktyce zawodowej pielęgniarki wyżej cenią doświadczenie kliniczne niż wyniki badań naukowych (44%).

**Wnioski.** 1. W związku z przewidywanym zwiększonym zapotrzebowaniem na usługi pielęgniarskie w zakresie opieki paliatywnej, istnieje konieczność pilnego uzupełnienia wiedzy i umiejętności pielęgniarek dotyczących wykorzystywania najnowszych wyników badań naukowych w swojej praktyce zawodowej.

2. Brak dostatecznej wiedzy pielęgniarek na temat metodologii badań naukowych wymaga zmian systemowych w kształceniu na kierunku pielęgniarstwo oraz w programach specjalizacyjnych kształcenia podyplomowego.

**SŁOWA KLUCZOWE:** evidence-based medicine, evidence-based nursing practice, pielęgniarstwo, jakość opieki pielęgniarskiej.

## Introduction

The growing number of palliative-care-requiring patients in Poland, which is related to the growing length of life, generates a need for specialized nursing staff. New methods of treatment and approach to a terminal-stage patient require that nurses, being independent service-providers, gain knowledge of evidence-based practice. The use of scientific evidence in clinical practice has a beneficial impact not only on the safety of the very patient and medical personnel but also on the growth of the financial effectiveness and efficiency of medical procedures performed [1–10].

Adequate decision-making in nursing care requires not only an adequate clinical diagnosis but also knowledge of scientific data and determination of the degree of their credibility. Hence, the ever growing emphasis on the use of scientific research findings in the professional practice of nurses which is expected to have a favourable influence not only on the safety of the patient and the medical personnel or the effectiveness of the medical procedures performed but also on their financial effectiveness. A prerequisite is thus to make palliative nurses aware of the necessity of using the latest scientific research findings and development of their skills and competence in the field of methodology of conducting scientific research [1–10].

A specialization block of postgraduate training in Palliative Nursing comprises five modules and a general vocational block in a total of 1070 class hours and it aims to teach a nurse specific qualifications in palliative nursing as well as acquisition of a title of the specialist in this field. The general vocational classes that are the same for all fields of various specializations include also 15 hours of the 'Research in Nursing' course that covers all issues associated with *Evidence-Based Practice* [11].

## Aim of study

The aim of the study was an attempt to assess the knowledge, attitudes and skills related to using *Evidence-Based Practice* (EBP) in everyday professional practice of a nurse after graduating from a specialist training in palliative care.

## Material

The study was conducted among a group of nurses taking the state examination after completing a specialist training in epidemiological nursing organized by the Postgraduate Training Centre for Nurses and Midwives in April 2014. Correctly completed questionnaires were returned by 152 persons. 147 women and 5 men took part in the study. The mean age of the group amounted to 40.23 years (min. 27, max. 65, SD = 6,68). The

largest group (46 persons) had a master's degree, 42 study participants had a bachelor's degree, and 33 of the total had secondary education. 31 persons provided no answer to that question. As many as 116 study participants completed a postgraduate training (not directly increasing their professional competencies), 17 nurses said that they had not graduated from such a course.

The largest subgroup among the study group had completed a qualifying course (42 nurses), 29 of the total graduated from a specialist course, 13 of the study group completed a specialist training (other), and 10 persons graduated from a retraining course. The length of service among the study participants amounted to 18.01 years (min. 4, max. 37, SD = 7,98). 85 of the nurses took employment in the public sector, 27 of the total worked in the private sector, and only one person stated another form of employment. As many as 97 nurses were employed under a contract of employment (full-time), 10 persons worked under a contract of mandate, and 9 persons had another form of contract. The largest number of the study participants (48 persons) worked in town hospital departments and 39 persons worked in teaching hospital wards. Among the study group, six persons carried out functions related to management / supervision/ training/ teaching profession. The remaining persons were employed in an institute (4 nurses) and in a specialist outpatient clinic (3 nurses).

Among the study group, senior nurses constituted the largest subgroup (66 persons), followed by divisional nurses (22 persons), and departmental nurses (10 persons). Six persons coordinated and supervised the work of other nurses, three study participants worked as operating room nurses.

## Methods

In the study we used the diagnostic probe method, the questionnaire technique. The study was carried out in April 2014. We used the 'Evidence-Based Practice Profile Questionnaire' developed by a team of authors: McEvoy MP, Williams MT, Olds TS. of the School of Health Sciences, University of South Australia, Adelaide, Australia, published in 2010 in the *Medical Education* journal [12]. The authors of the present study obtained the consent for its use. The questionnaire was validated and doubly translated by independent translators for the use in our own research. Participation in the study was voluntary and the questionnaire was anonymous.

The questionnaire consisted of 4 questions with the Likert scale or the nominal scale in the area of professional practice based on scientific evidence, 13 questions concerned personal information, education and employment and one question concerned an earlier en-

counter with the subject-matter discussed. Questions concerning evidence-based practice were divided into 7 subject domains:

1. Nurses' knowledge of and attitudes to EBP.
2. Nurses' relation to expanding their EPB competence.
3. EBP application in the professional nursing practice.
4. Knowledge of EBP terminology.
5. Frequency of the application of individual EBP elements in everyday clinical practice.
6. Level of EBP-related skills.
7. Predispositions and barriers limiting the application of EBP by nurses.

The obtained data were gathered in Microsoft Excel Sheet 2010 (v14.0).

## Results

Questions asked in the first thematic domain aimed to assess the level of knowledge of and attitudes towards Evidence – Based Practice among nurses, rated by the respondents on a scale from 1 to 5, depending on the degree to which they agreed with a statement (1 – strongly disagree; 5 – strongly agree). Most nurses (81 persons) were aware of EBP in their profession and knew the meaning of the term of *Evidence – Based Practice* (100 persons).

In the following part of the questionnaire, the respondents expressed their attitude towards broadening their competencies related to EBP on a scale from 1 to 5 (1 – certainly not, 5 – certainly yes). The nurses expressed strong probability of improving their skills and knowledge related to EBP: as many as 97 nurses were going to use the best available scientific evidence to improve the quality of their professional practice and wanted to use relevant scientific literature to update their knowledge.

The next questions in the questionnaire concerned the use of EBP in professional practice of nurses and they were also assessed on a scale from 1 to 5 (1 – strongly disagree; 5 – strongly agree). Most nurses admitted that scientific information was useful in their professional practice (80 persons) and agreed that they should use scientific evidence in their daily work more often (87 persons). As many as 98 nurses were interested in improving skills necessary to include EBP in their professional practice.

Questions asked in the next part of the questionnaire aimed to assess the level of nurses' knowledge of research terminology. The terms and issues in the questionnaire were assessed on a scale from 1 to 5 (1 – never heard of it, 5 – I understand it and I can explain its meaning to others). Only 4 persons understood and were able to explain the term of the *statistical significance*. 36 nurses understood the term of the *systematic*

*review* quite good, a little less of the total understood the terms of the *clinical relevance* (28) and *confidence interval* (23). 32 nurses had never heard about the term of the *forest plot*, and 20 nurses had never heard about the term of the *publication bias*.

In the following part of the questionnaire, the respondents assessed the frequency of using particular elements of Evidence - Based Practice in their everyday practice, using a scale from 1 to 5 (1 – never, 5 – every day). 36 persons never evaluated methodological soundness of the scientific literature they had used and 23 persons never referred to their own diagnosis. Although 39 nurses said they used electronic scientific literature databases, only 5 respondents admitted that they read study results every day. 56 nurses had never found scientific evidence relevant to the clinical question and only 5 persons discussed scientific contributions with their co-workers every day.

The respondents were also asked to assess their skills related to Evidence – Based Practice on a scale from 1 to 5, with 1 referring to 'I definitely cannot', and 5 meaning 'I definitely can'. Although 66 nurses said they could gain access to scientific evidence and use the electronic scientific literature databases (71 persons), as many as 39 nurses had no opinion on their research skills. Only 46 respondents said they could define the level of clinical usefulness of particular scientific evidence and 35 nurses had the ability to determine the level of its reliability.

The last part of the questionnaire concerned predispositions and barriers that limit the use of EBP in the nurses' workplace. 99 study participants expressed their willingness to learn new information, even though it was impossible for 71 nurses to update their knowledge on a regular basis due to the excessive workload. On the one hand, support from co-workers (63 nurses) and from management (70 nurses) constituted one of the greatest motivation to use Evidence – Based Practice in everyday professional practice. On the other hand, 40 study participants admitted that the costs of using information resources limited the use of EBP in everyday work. 42 nurses believed that their employer definitely did not require the use of EBP in their everyday professional practice.

In the last question nurses were asked to indicate whether and where they had met the term of the "*Evidence – Based Nursing Practice*." 56 respondents said that they met this term during one of the classes at university and 30 persons pointed to a conference or training. 20 respondents met the term of EBP in their workplace. 12 study participants had never heard about the evidence-based practice.

## Discussion

The present health care system requires highly qualified and well-trained nurses in palliative treatment. Attention paid to the quality of services provided by health care centres constitutes one of the greatest challenges for the modern health care system. Due to competitiveness in the market and striving for patients with constantly increasing demands, this attention becomes an essential element of management in all health care institutions.

The role of a nurse has changed with a development of a long-term care. A traditional nurse-oriented attitude in which a nurse was focused on securing and meeting the basic care needs has changed into an autonomous professional model. A nurses' job in institutions providing services for the elderly is now an autonomous activity. Therefore, nurses should have a high level of clinical and professional knowledge of geriatrics, strong communication skills, and they should know the rules of functioning of a long-term care system [13]. Moreover, palliative care nurses are also supposed to have knowledge of evidence-based practice. The desired level of education can be achieved by a variety of forms of lifelong learning and postgraduate training as well as implementation of the basics of *Evidence-Based Practice* into the everyday professional nursing practice.

The world scientific literature (PubMed, SCOPUS, EMBASE, PROQUEST, search dates: January 1, 2000–November 12, 2013, publication language: English, key words: *nursing, evidence-based practice, evidence-based nursing practice*) provided a number of publications concerning opinions of different groups of nurses on *Evidence – Based Nursing Practice* [14–20].

Due to the specific character of the topic discussed among nurses after graduating from a specialist training in palliative nursing care, no publications on the knowledge of *Evidence – Based Nursing Practice* among a similar group of nurses were found in the Polish literature (Polish Medical Bibliography).

A study by Justyna Rogala and Elżbieta Kozak-Szkopek enrolled a total of 60 nurses (Group 1 comprised nurses working in nursing and care facilities, Group 2 comprised nurses working in emergency departments, and Group 3 comprised students of nursing). The study results demonstrated that the level of knowledge of the study participants was diverse and it depended on clinical experience. Our study shows that nearly half of the nurses participating in the study value professional experience more than the results from published studies and that clinical experience is the best way to assess the effectiveness of a particular activity.

50.6% nurses said that they liked learning and they had management predispositions, and 40% of the total

admitted that they were critical towards new ideas. As many as 35% of the respondents believed that in their job, the management was constantly looking for new possibilities of learning and 46% of the total said that support from management was one of the greatest motivations to use EBP in professional practice. The knowledge of nurses about the concepts associated with EBP was very low: only four persons could explain the meaning of the terms of the *statistical significance* or *confidence interval*. The frequency of using particular elements of Evidence – Based Practice in everyday professional nursing practice was also very low: only 10% persons referred study results to their own diagnosis once a week, and 24% of the total had never evaluated methodological soundness of the scientific literature they had been using.

The present study demonstrates that nurses have just an average level of knowledge of using EBP in geriatrics. Therefore, there is a need to systematically improve professional qualifications of nurses, in particular by specializations, which would improve the level of nursing care of geriatric patients and the quality of their lives [13]. Due to an ageing population, an increase in the number of people confined to bed and those with chronic diseases, a long-term care system is going to face major challenges. In order to meet them, geriatrics and geriatric nursing should become a priority in teaching nurses at every stage of their professional career [13].

## Conclusions

1. In connection with a foreseen growing demand for nursing services in the field of palliative care, there is a need to urgently complement and improve the knowledge and skills of nurses with respect to the use of the latest results of scientific research in their professional practice.
2. The absence of knowledge of the methodology of scientific research among nurses requires systemic changes in the education in the field of nursing as well as in the curricula of specialist post-graduate education.
3. There is a need for ongoing updating by nurses of their knowledge with respect to the use of the latest scientific research findings in professional practice.

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**Address for correspondence:**

Joanna Gotlib

Żwirki i Wigury 81

02-091 Warsaw, Poland

phone: +48 22 57 20 490

e-mail: [joanna.gotlib@wum.edu.pl](mailto:joanna.gotlib@wum.edu.pl)

Division of Teaching and Outcomes of Education

Medical University of Warsaw