Original paper

Evidence-based nursing practice: comparative analysis of professional competences of nursing staff in selected Polish voivodeships – preliminary study

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Abstract

Introduction: Modern, professional nursing is moving away from the traditional nursing model, focusing on evidence-based interventions (EBP). The practical use of scientific research results in professional work which translates positively into an increase in the quality of nursing care provided.
Aim of the research: Comparative analysis of professional competences of nursing staff in relation to practice based on scientific evidence in the Mazowieckie, Lubelskie, and Swietokrzyskie voivodeships.
Material and methods: A total of 173 professionally active nurses working in the Mazowieckie (n = 62, 36%), Lubelskie (n = 56, 32%), and Swietokrzyskie (n = 55, 32%) voivodeships took part in a voluntary and anonymous online survey. The following research tools were used: the Standardised Evidence-Based Practice Profile Questionnaire and the Generalised Self-Efficacy Scale. The research was conducted in accordance with the descriptive statistics methodology.
Results: It was found that 71% of nurses were aware of the existence of practice based on scientific evidence, and the same number of respondents claimed that EBP is a modern model of practicing the nursing profession. As many as 90% of respondents intended to expand their knowledge about the idea of EBP. Only 9% of nurses declared that they would not develop professional competences based on scientific literature. For more than half (55%) of nurses, lack of time was the main barrier limiting the use of EBP principles in their professional work.
Conclusions: We can conclude the following: 1) a higher level of professional competence obtained by nursing staff directly translates into the degree of practical use of EBP, 2) evidence-based nursing practice significantly improves quality in nursing. 3). Lack of time and workload limit the frequency of using EBP.

Introduction

The definition of evidence-based practice (EBP) was initiated by Gordon Guyatt, professor of medicine and clinical epidemiology at McMaster University in Canada [1]. Gradually, with the development of scientific research in the world, many changes occurred in the search for the optimal therapeutic process, and scientific fact became an important tool. The potential of implemented scientific interventions is verified using selected scientific evidence, and the results of these studies contribute to making appropriate clinical decisions.

An approach identical to EBP is the idea of nursing practice based on scientific evidence – EBNP – which significantly contributes to the increase in the level of professionalism of the care provided, emphasising the authority of nursing staff as an autonomous member of the therapeutic team [2]. EBNP minimises the validity of making decisions based on tradition or custom, while questioning and improving health care services. The use of scientific evidence in everyday clinical practice guarantees safe, effective, and patient-centred care (PCC) that meets the highest standards [3, 4].

Making decisions consistent with the EBNP idea allows us to ensure that we provide patients with the highest level of care, which is the safest and the most economical [5]. Using the results of scientific research from the basic group defining a given discipline, identifying and describing phenomena in the field of nursing, as well as research from the field of applied sciences dealing with the optimisation of nursing activities, in addition to the evaluation of the implemented activities, make it possible to learn about the patient's prognosis and verify the results of the implemented nursing process [6, 7].

An ideally functioning health care facility should create conditions for making individual, holistic clinical decisions in accordance with the EBNP scheme. Currently, due to various factors and organisational barriers, it is difficult to use scientific facts for each patient [8].

The increase in professional competences of nursing staff in relation to EBNP ensures the highest level

of services provided. Constant updating of accepted clinical procedures influences therapeutic success [9].

Aim of the research

The aim of the research was a comparative analysis of the professional competences of nursing staff in the Mazowieckie, Lubelskie, and Swietokrzyskie voivodeships in relation to practice based on scientific evidence.

Material and methods

A total of 173 nurses took part in the survey. The validation group consisted of professionally active nursing staff. The online study was conducted in November 2022, creating an electronic survey (computer assisted web interview, CAWI) on the website https://www.google.com/forms/about/. At each stage of the study, the principles of anonymity, protection of respondents' privacy, and the possibility of resigning from participation in the study at any time were maintained. The survey link was placed on the Facebook social networking site, on the following funpages Nurses – the best profession, 21st century nursing, the Digital Nurses Group, the National Portal of Nurses and Midwives, and the student group of second-cycle nursing. The method of verifying the professional identity of the surveyed nursing staff in the electronic survey was the number of the license to practice the profession of nurse. Correctly completed questionnaires were received from 173 people.

The research method used in this work is the diagnostic survey method, one of the most popular research methods used in nursing. It provides the opportunity to learn the common opinion of a large group of respondents on a specific scientific topic [10, 11].

The detailed research technique used in this work is a survey technique based on selected directives enabling obtaining verifiable information, opinions, and facts. The subjects used to implement the defined technique were as follows: Author's survey questionnaire; Evidence-Based Practice Profile assessment scale (EBP²); Generalised Self-Efficacy Scale (GSES).

The original survey questionnaire consisted of 12 closed questions relating to the characteristics of the surveyed group: age, gender, place of residence, voivodeship, education, additional qualifications, work experience as a nurse, place of work, currently held job position, form of employment, system of work, and the number of places where the respondent works. The respondents were instructed on how to complete this questionnaire.

The EBP² rating scale questionnaire was developed by a collection of authors: McEvoy MP, Olds TS, and Williams MT at the School of Health Sciences, University of South Australia, Adelaide, Australia. The tool was first published in 2010 in the journal Medical Education [12, 13]. The Polish version of the questionnaire was developed by researchers from Warsaw Medical University (WUM), modifying some statements on the basis of qualitative research (focus group interview) among nurses and midwives [14, 15]. The EBP² scale is made up of 88 questions, of which 74 are based on a 5-point Likert scale to assess the study group in 7 thematic domains:

- knowledge and attitudes of nursing staff regarding EBMP,
- nursing staff attitudes towards developing professional competence regarding EBMP,
- pragmatic use of EBMP in professional practice,
- knowledge of concepts used in EBMP,
- frequency of use of scientific evidence in nursing practice,
- spectrum of professional qualifications held in evidence-based practice,
- potential for and barriers to nurses' use of evidence in professional practice.

The Generalised Self-Efficacy Scale (GSES) by R. Schwarzer and M. Jerusalem, adapted by Z. Juczyński, relates to intentions and actions with respect to various individual behaviours. It is composed of 10 statements to which the respondent answered by marking the selected answer on a 4-point scale. Specific point ranges determined the level of the self-efficacy index [16–18].

Institutional Review Board Statement

The study was conducted in accordance with the Declaration of Helsinki. Bioethics Committee approval was not obtained.

Statistical analysis

Descriptive statistics methods were used to statistically analyse the results, and the data obtained in the study were presented using the R (version 4.2.1) and Python (version 3.8.1) programming languages, with the adopted significance level of $\alpha = 0.05$. Qualitative variables were presented indicating the number (n) and percentage (%) of individual responses. The results obtained from standardised tools (Evidence-Based Practice Profile Assessment Scale – EBP² and the Generalised Self-Efficacy Scale – GSES) are shown through the characteristics of the distributions of the obtained variables. The normality of individual distributions was analysed using the Shapiro-Wilk test. The level of quantitative variables was compared between 2 groups with Student's t-test, and between more than 2 groups with the Kruskal-Wallis test or ANOVA analysis (depending on the normality of the distribution of variables in individual subgroups). In the case of a significant main analysis, post-hoc tests with Bonferroni correction were performed. Linear relationships between 2 quantitative variables were analysed using the Pearson r correlation coefficient.

Results

The present study involved 173 participants. The respondents represented a group of professionally active nurses. The study group was dominated by women (75%), while men made up 25% of the group. The largest proportion of respondents was between 48 and 56 years old (29%). Nursing staff aged between 21 and 29 years accounted for 22%, and those aged over 57 years accounted for 12%. Most respondents lived in a city (71%). The percentage of individual provincial representatives was as follows: Mazowieckie 36%, Lubelskie 32%, and Swietokrzyskie 32%. Analysing the educational level of the population surveyed, those with secondary education (medical secondary school/medical college) accounted for 9%, while those with higher education accounted for 79%. An academic degree was held by 12% of respondents. Seniority in the nursing profession up to 5 years was held by 17% of the group and over 30 years by 16%. A summary of the results is presented in Table 1.

Respondents were asked about having additional professional qualifications. Most of the nurses had completed additional forms of training, the most popular of which was a specialist course (83%). The high result for this form of postgraduate training is due to

Table 1. Characteristics of the study group

Variable	*n* (%)
Gender	
Woman	130 (75.1)
Men	43 (24.9)
Age [years]	
21–29	38 (22.0)
30–38	35 (20.2)
39–47	30 (17.3)
48–56	50 (28.9)
> 57	20 (11.6)
Place of residence	
City	123 (71.1)
Village	50 (28.9)
Voivodship	
Lubelskie	56 (32.4)
Mazowieckie	62 (35.8)
Swietokrzyskie	55 (31.8)
Education	
Secondary (secondary medical school/medical college)	15 (8.7)
Higher – Bachelor of Nursing	68 (39.3)
Higher – Master of Nursing	69 (39.9)
Degree – PhD, Professor	21 (12.1)
Seniority in the nursing profession (years worked)	
0–5	29 (16.8)
6–10	24 (13.9)
11–15	30 (17.3)
16–20	12 (6.9)
21–25	25 (14.5)
26–30	26 (15.0)
> 30	27 (15.6)

n (%) – the number of subjects in a given group and the percentage among all subjects.

the high availability, optimal duration, and rich subject matter of the courses. No additional professional qualifications were held by 6% of the respondents – a small statistical percentage.

Ninety-five percent of nurses were employed under an employment contract, which allows the conclusion that this is the basic form of employment of nursing staff in Poland. The employment of the rest was based on a civil law contract.

Most respondents (65%) worked in a double-shift system. The remainder worked a single-shift system (Table 2).

The following data were obtained from a survey of nursing staff in the Mazowieckie, Lubelskie, and Swietokrzyskie voivodeships.

In the first stage of completing the EBP[2] questionnaire, nurses determined the level of their own knowledge and attitudes towards evidence-based practice. As many as 71% of respondents are aware of the existence of evidence-based practice in their profession, with the same number of respondents (71%) stating that EBP represents a modern model of nursing practice. The data obtained are shown in Table 3.

Further results from the standardised tool analysed referred to nurses' self-assessment towards developing evidence-based practice. Most of the respondents declared a desire to enhance their knowledge of evidence-based practice (90%), which is strongly in favour of the need to popularise this idea in the community. In contrast, 9% of respondents expressed a reluctance to optimise their knowledge, representing a low statistical percentage of the surveyed group. It is noteworthy that more than half of the nurses (51%) declared a willingness to use scientific literature to develop their qualifications.

Table 2. Distribution of respondents by working system

System of work	*n* (%)
Single shift	61 (35.3)
Double shift	112 (64.7)

n (%) – number of subjects in a given group and the percentage among all subjects.

A further part of the completed survey referred to the pragmatic use of scientific evidence in the professional practice of nurses working in the Mazowieckie, Lubelskie, and Swietokrzyskie voivodeships. Respondents in the dominant group confirmed the thesis that scientific facts are essential in daily nursing practice (71%). A similar number of nurses (76%) said that using elements of evidence-based practice approvingly improves the quality of nursing services. As many as 36% believed that professional experience is a primary means of evaluating the nursing interventions performed in relation to the patient. This may be due, indirectly, to the average age of nursing staff in Poland and directly to knowledge deficits regarding the assumptions of EBP. More than half of the respondents (54%), in their answers, signalled attention to numerous shortages of medical equipment and staff, and a lack of standardised nursing procedures. From the results obtained, it can be concluded that the existing gaps in the Polish hospital system constitute

Table 3. EBP qualifications and attitudes of nursing staff

Content of the question	Answer	*n* (%)
I know the meaning of the term evidence-based practice (EBP)	I strongly disagree	11 (6.4)
	I disagree	14 (8.1)
	I have no opinion	24 (13.9)
	I agree	64 (37)
	I strongly disagree	60 (34.7)
I am aware of EBP in my profession	I strongly disagree	9 (5.2)
	I disagree	16 (9.2)
	I have no opinion	25 (14.5)
	I agree	61 (35.3)
	I strongly disagree	62 (35.8)
EBP is a modern model for practising my profession	I strongly disagree	4 (2.3)
	I disagree	16 (9.2)
	I have no opinion	30 (17.3)
	I agree	62 (35.8)
	I strongly disagree	61 (35.3)

n (%) – the number of subjects in a given group and the percentage among all subjects.

Table 4. Comparison of results obtained on the 5 domains of the EBP² questionnaire between respondents from different provinces

Domain	Lubelskie	Mazowieckie	Swietokrzyskie	*P*-value
	M ± SD/Me (Q1; Q3)			
I	55.00 (44.50; 66.00)	62.50 (52.00; 69.75)	62.00 (52.00; 66.00)	0.0861
II	23.98 ±4.70	24.92 ±4.31	25.82 ±4.85	0.114
III	39.91 ±18.32B	52.29 ±19.13A	44.71 ±16.92	0.001
IV	26.02 ±8.96	26.50 ±8.93	26.86 ±7.12	0.871
V	37.13 ±9.89	40.86 ±8.80	38.16 ±9.10	0.079

M ± SD – mean and standard deviations; Me (Q1; Q3) – median and quartiles; p – p-value for ANOVA or Kruskal-Wallis analysis1. A > B. I – Attitudes of nursing staff towards the development of professional competencies regarding EBP. II – Knowledge and attitudes of nursing staff regarding EBP. III – Knowledge of concepts used in EBP. IV – Frequency of use of scientific evidence in nursing practice. V – Spectrum of professional competencies held in evidence-based practice.

one of the barriers to the implementation of the idea of evidence-based practice.

Questions in the next section of the EBP² questionnaire assessed respondents' knowledge of specialised terminology related to research and elements of descriptive statistics. Only 31% of the surveyed group knew and understood the definition of a specific literature review, the concept of 'clinical relevance' was known and understood by 39% (of nurses, evaluate research results for statistical significance can 33% respondents). The data obtained highlight a significant problem in nurses' knowledge of basic terminology used in research and statistical analysis. Acquiring adequate knowledge in this area is necessary to critically and substantively analyse the scientific sources discussed. Expanding educational programmes at different stages of education to include content used in EBP would significantly improve nurses' knowledge of professional terminology.

The last part of the Evidence-Based Practice Profile questionnaire indicates the potential barriers to the use of scientific evidence by nurses in their professional work. Most of the respondents (87%) were enthusiastic about acquiring new knowledge, but less than half were able to organise time for reading and analysing scientific reports. A statistical majority (55%) of nurses said that lack of time is the main difficulty reducing the level of use of scientific facts in clinical practice. This is directly linked to staff shortages and the heavy workload of several full-time jobs. The analysed study group claimed that support from colleagues is the greatest motivation for using the components of evidence-based practice. 47% of nurses believed that their employer did not require them to use the components of EBP in their professional practice. The conclusions of this analysis are worrying. They may be indicative of the subjective treatment of medical staff by health care managers.

Further analysis of the acquired data allowed the results from the five domains of the EBP² questionnaire to be compared with each other. One analysis showed statistical significance – the results obtained for domain III differed between the assumed provinces ($p = 0.001$ for the main analysis). A post-hoc analysis was performed to show which specific domains differed. This interpretation showed that nurses from the Mazowieckie voivodeship had significantly greater knowledge of the concepts used in evidence-based practice, scoring significantly higher (M = 52.29) for this domain than respondents from the Lubelskie voivodeship (M = 39.91), $p < 0.050$, for the post-hoc analysis. There is a greater number of clinical centres and scientific institutions in the Mazowieckie voivodeship, which indirectly contributes to nurses obtaining higher qualifications in EBP. The results of the studies relating to the issue in question are presented in Table 4.

The nursing staff surveyed also completed the GSES scale, which is a standardised tool that determines the intentions and actions of different behaviours of individuals. The central tendency of the scores obtained by the nurses was mean = 31.65 (SD = 4.98). Half of the respondents had scores not exceeding median = 30.00 points; the other half had scores not lower than median = 30.00 points. The lowest score observed in the group was 18.00 points. It may be due to undermotivation of the respondents to expand their competences in relation to EBP because of the many barriers present in the environment. The results of the survey are shown in Table 5.

The next step of the analyses examined whether a relationship could be observed between self-efficacy (GSES scale) and scores on the 5 domains of the EBP² questionnaire. All analyses were statistically significant ($p \leq 0.001$). The higher the self-efficacy, the higher the scores on each of the 5 EBP² domains. The lowest correlation was observed between GSES and domain 2 ($r = 0.26$ – weak correlation). The remaining correlations were of average strength ($r > 0.40$) (Table 6).

When analysing the collected data, it was found that most of the survey respondents had additional pro-

Table 5. Distribution characteristics for the GSES scale

Scale	M	SD	Me	Min.	Max.	S	*P*-value
GSES	31.65	4.98	30.00	18.00	40.00	0.06	< 0.001

M – mean, SD – standard deviations, Me – median, Min.–max. – range of results, S – skewness, p – p-value for the Shapiro-Wilk test.

fessional qualifications covering various forms of postgraduate training. To visualise the correlations occurring, the data obtained on additional qualifications were collated against the EBP² questionnaire. The following conclusions can be drawn from the analyses:

- respondents who completed the qualification course achieved significantly higher scores in domains 3 ($p = 0.007$) and 5 ($p = 0.026$) than respondents who did not complete the course;
- respondents who completed a postgraduate course had significantly higher scores on each of the 5 domains than respondents who did not complete a postgraduate course ($p < 0.001$ for each analysis);
- respondents who completed and those who did not complete a postgraduate course did not differ significantly in their EBP² questionnaire scores;
- respondents who completed the specialty course achieved significantly higher scores for domains 1, 2, 4, and 5 ($p < 0.050$ for all analyses) than respondents who did not complete the specialty course;
- respondents following specialty training had significantly higher scores on each of the 5 domains than respondents who did not complete specialty training ($p \leq 0.010$ for all analyses).

When comparing the study group of nurses with different levels of education to the information obtained from the EBP2 questionnaire, all the principal analyses performed were statistically significant ($p < 0.001$). From the post-hoc analyses performed to test for differences, the following reflections were made:

- for domain 1: as the level of education increased, and an increase in the positive attitude of the nursing staff towards the development of professional competences regarding EBP could be observed;
- for domain 2: respondents with a master's degree and with doctoral, post-doctoral, or professorial degrees scored significantly higher at representing EBP knowledge and attitudes than respondents with secondary and undergraduate education;
- for domains 3, 4, and 5: respondents with a bachelor's or master's degree achieved higher scores at representing knowledge and frequency of application of scientific evidence in practice than respondents with a secondary education; however, respondents with a doctoral degree achieved by far the highest scores for these domains.

Discussion

The available Polish scientific literature addresses the analysis of the professional competence of nursing staff in relation to evidence-based nursing practice to a limited extent. Most of the published original papers were written by a team of researchers from Warsaw Medical University [19]. Evidence-based practice is a large topic of research relating to the medical profession. Due to the size of the professional group of nurses and nurse practitioners and the extensive research material collected, the presented work is novel. Research studies by other authors are largely review papers that address the knowledge base of EBP principles and discuss the possibilities of pragmatic application of this idea in the work of the nursing team [20, 21]. A review of the global scientific literature reveals numerous items presenting the tenets of EBP [22–24]. Despite an extensive body of work, no professional publication comparing the professional competence of nursing staff against the evidence-based practice of selected provinces was found. A critical analysis of the available global scientific literature highlights the related level of achieved professional qualifications of indigenous nurses, relative to nursing staff working in other countries of the world. The findings argue for the high level of higher education in Poland. Increasing the level and awareness among nursing staff of the essence of evidence-based practice, statistically, does not translate into improved determinants of the correct implementation of EBP assumptions into nursing practice. This is due to the commensurate barriers emerging worldwide [25, 26]. There is a need to take action to popularise the EBP approach, by implementing pilot programmes, expanding thematic content at different levels of edu-

Table 6. Analysis of the relationship between the GSES scale and scores obtained on the 5 domains of the EBP² questionnaire

Domain	GSES	
	r	*P*-value
I	0.48	< 0.001
II	0.26	0.001
III	0.46	< 0.001
IV	0.47	< 0.001
V	0.49	< 0.001

r – r-Pearson correlation coefficient; p-value for correlation analysis. I – Attitudes of nursing staff towards the development of professional competencies regarding EBP. II – Knowledge and attitudes of nursing staff regarding EBP. III – Knowledge of concepts used in EBP. IV – Frequency of use of scientific evidence in nursing practice. V – Spectrum of professional competencies held in evidence-based practice.

cation, and initiating regular information meetings in health care units.

Continuing the discussion, an original paper perpetrated by Majid *et al*. was analysed. The team of researchers obtained numerous data from 1486 active nurses working in central clinical centres across Singapore. The statistical study showed that more than half of the respondents (64%) expressed an affirmative attitude towards the key tenets of evidence-based practice, while highlighting that the overload of professional responsibilities due to numerous staff shortages and working in several treatment entities reduced the scale and frequency of pragmatic use of scientific fact in nursing and nurse. The survey exposed the enormity of the problem associated with knowledge of professional terminology used in EBP and medical statistics. Nursing staff clearly emphasised the importance of education to broaden their skills towards evidence-based practice [27]. The results of our study submitted similar results. Nurses from the voivodeships of Mazowieckie, Lubelskie, and Swietokrzyskie positively referred to the strengthening of evidence-based practice qualifications. A small percentage of respondents (2%) spoke negatively in relation to nursing knowledge and qualifications in this area. The data obtained manifest the willingness of Polish nurses to develop their scientific literacy. Analogous to the Singaporean staff surveyed, the respondents identified lack of time as a major barrier limiting the use of EBP in their professional work. Twenty-eight percent of nurses in the selected provinces said they lacked the time to pursue self-education. Lack of knowledge of how to perform procedures in the spirit of current scientific reports contributes to numerous medical errors, underestimation of the quality of nursing services, and performing actions in a schematic manner exposing the recipient of care to harm. Respondents also showed a lack of knowledge of the terminology used in EBP. Acquiring basic knowledge would allow nurses to understand the fundamental assumptions and interactions of evidence-based practice.

Similar results were confirmed by the study of the team of Florin *et al.*, who obtained 2107 questionnaires from a research group of first-year undergraduate nursing students. The main research problem adopted in the study was the evaluation of didactic support in relation to the use of scientific facts in students' daily practice. The evaluation of the data showed that the students' self-assessment of their ability to find specific knowledge related to a specific issue is at a significantly higher level than their ability to correctly ask a clinical question. This may be due to the heavy workload of educators with the implementation of the core curriculum and the limited amount of this subject matter in the syllabuses of the subjects taught. The huge deficits of nursing staff worldwide and the high occupancy of clinical facilities negatively affect the level of EBP use, and the vast majority of nurses rely on routine management. The student group surveyed highlighted the great difficulty of making changes to top-down established procedures [28]. Although the cited study concerns young nursing students and not working professionals, interesting conclusions can be drawn from the interpretation of this study. The problem of the popularity of the use of EBP ideas among nursing staff appears already at the stage of pre-graduate training. Devoting too little attention to this topic during undergraduate studies contributes to the low level of use of evidence-based practice in later professional work.

Bogdan-Lovis and Sousa obtained similar statistical results on a sample of nurses and midwives. The aim of the study was to compare the knowledge, availability, and extent of use of EBP elements by the medical staff of larger and smaller health care centres. The responses obtained were analysed by processing, coding, and comparing in a dedicated data management programme. The results obtained highlighted that both professional groups are characterised by a rich knowledge of EBP, but a detailed analysis of individual records showed that they do not fully understand its assumptions and sense of practical use [29]. The author's survey of 173 nurses showed similar results. Respondents reported a high level of research skills (32%) and computer proficiency (46%), but only 31% were able to correctly use electronic databases containing scientific publications. A noticeable problem is the lack of application of the analysed scientific evidence in the patient nursing process. Only 15% of respondents make practical use of scientific information in relation to specific clinical cases. There are many factors contributing to this situation. We can include, among others, an insufficient number of medical staff, which translates into an excessive workload for the individual units of the therapeutic team and limited opportunities to apply EBP principles.

The global healthcare sector is undergoing chronic and dynamic change. Research teams around the world are making a significant contribution to improving the quality of healthcare services provided, in line with the latest standards. Nursing staff, who are a vital link in the therapeutic team, by undertaking interventions in line with the EBP paradigm, provide the best care to the patient and their family at every stage of their lives.

There are 2 main limitations to the present study, which can be addressed in future attempts to address a similar topic. Firstly, 2 standardised tools were used: the GSES questionnaire and the extended EBP^2 questionnaire, which was met with reluctance on the part of the respondents to take a large amount of time to complete the questionnaires correctly. In the future, I suggest limiting the survey tools to the EBP^2 questionnaire or another available tool with a shorter and more accessible format for the recipient. The second

major limitation of the study was the number of respondents. For the purposes of this study, the research was narrowed down to 3 provinces of Poland. In the future, I propose that the research be extended to a nationwide scale so that the synthesis of data would provide a reliable source of scientific evidence.

Conclusions

Nursing practice is integrally linked to continuing education and the deepening of professional experience through reflective practice using a scientific knowledge base.

The higher level of professional competence obtained by nursing staff directly translates into the degree of practical application of EBP concepts in daily clinical practice. There is a need to continuously address the deficits in knowledge and practical skills of nurses in EBP.

Evidence-based nursing practice significantly improves quality in nursing. It contributes to the improvement of nursing services, increases the sense of safety of patients and medical staff, and reduces the economic aspect. The low level of knowledge regarding the evaluation, synthesis, and production of scientific facts requires changes in the education system for students and active nurses.

Lack of time and a heavy workload limit the frequency with which EBP is used. Making changes to enable effective evidence-based knowledge generation and support for colleagues and managers should be a priority for future system changes.

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Ethical approval

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Conflict of interest

The author declares no conflict of interest.

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