

Knowledge and attitudes of midwives towards using study results in everyday clinical practice – focus group interview

(Wiedza i postawy położnych wobec wykorzystywania wyników badań naukowych w codziennej praktyce klinicznej – badanie focusowe)

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Abstract – The ability to use up-to-date study results in everyday clinical practice is necessary in health care professions such as doctors, nurses and midwives in order to provide efficient and safe nursing care of highest quality standards. The aim of the study was to analyse the knowledge and attitudes of students in midwifery towards using study results in everyday clinical practice.

Material. A group of 58 extra-mural (bridging) undergraduate students in midwifery, 98% working as midwives. 50 persons had medical secondary education, 7 persons completed MA studies, 1 person had a BA diploma. Mean age of the study population amounted to 44.34 years (min. 36, max. 55, SD: 4.632), mean length of service was 19.92 years (min. 5 year, max. 32, SD: 6,152). 79% of the study population worked in the public sector, 95% of study participants had a full-time employment.

Methods. Extended focus in two rounds. A pilot study. Qualitative study, structured interview. Qualitative analysis of the study results.

Results. The study participants were able to correctly define the acronyms EBM and EBMP and explain them. Students had a wealth of knowledge of available scientific journals in the field of obstetrics and declared their regular reading. The students mentioned the following journals most often: *Magazyn Pielęgniarki i Położnej, Medycyna Praktyczna, Ginekologia po Dyplomie, Położna. Nauka i Praktyka (Magazine for Nurses and Midwives, Practical Medicine, Post – diploma Gynecology, Midwife. The Science and Practice)*. In the study group, none of the midwives was involved in establishing midwifery procedures in their workplace nor in developing recommendations for the birth environment. The majority of the study group were aware of benefits resulting from using most recent study results in everyday clinical practice and of ensuing professional responsibility. In terms of continuing education, midwives declare frequent participation in scientific conferences related to their professional work and interests.

Conclusions. 1. The level of knowledge of Evidence-based Midwifery Practice and of possibilities of using study results in midwifery practice among the study group was passable.

2. The awareness of benefits resulting from using the most recent study results in everyday clinical practice was high. The

midwives understood benefits of being up-to-date with medical knowledge, involving not only quality assurance of their services but also protection of their professional liability.

3. It is necessary to expand the skills of midwives with reference to searching for scientific evidence.

Key words - Evidence-based midwifery practice, safety, quality of midwifery care.

Streszczenie – Umiejętność wykorzystywania i zastosowania aktualnych wyników badań naukowych przez pracowników ochrony zdrowia: lekarzy, pielęgniarki czy położne w ich codziennej praktyce zawodowej jest konieczne do zapewnienia efektywnej, bezpiecznej oraz spełniającej najwyższe standardy jakości opieki sprawowanej nad pacjentem. Celem pracy była analiza wiedzy i postaw położnych wobec wykorzystywania wyników badań naukowych w codziennej praktyce klinicznej. **Materiał i metody.** 58 studentek studiów niestacjonarnych I stopnia (pomostowych) na kierunku Położnictwo, 98% pracujących w zawodzie położnej; 50 osób posiadało wykształcenie średnie medyczne, 7 - dyplom magistra, 1 – dyplom licencjata; średnia wieku 44,34 lata (min. 36, maks. 55, SD: 4,632); średni staż pracy 19,92 lat (min. 5, maks. 32, SD: 6,152). 79% studentek pracujących w sektorze publicznym, 95% w ramach pełnego etatu. Rozszerzony focus. Badania pilotażowe. Badania jakościowe, wywiad ustrukturyzowany. Analiza jakościowa uzyskanych wyników.

Wyniki. Badana grupa położnych potrafiła prawidłowo rozwinąć skróty EBM EBMP i wyjaśnić ich znaczenie. Studentki posiadały bardzo bogatą wiedzę dotyczącą dostępnych na rynku czasopism naukowych z dziedziny położnictwa i deklarowały ich regularne czytanie. Najczęściej wskazywanymi przez położne czasopismami były: *Magazyn Pielęgniarki i Położnej, Medycyna Praktyczna, Ginekologia po Dyplomie, Położna. Nauka i Praktyka*. Żadna z badanych położnych nie uczestniczyła w tworzeniu procedur położniczych w swoim miejscu pracy ani opracowywaniu rekomendacji dla środowiska położniczego. Większość miała świadomość korzyści wynikających z korzystania z najnowszych wyników badań naukowych w codziennej praktyce klinicznej i wynikającej z nich odpowiedzialności zawodowej. W aspekcie kształcenia ustawicznego położne deklarowały częste udziały w

konferencjach naukowych związanych z ich pracą zawodową i zainteresowaniami.

Wnioski. 1. W badanej grupie położnych poziom wiedzy temat Evidence-based Midwifery Practice oraz możliwości wykorzystania wyników badań naukowych w praktyce położniczej był zadowolający. 2. Świadomość dotycząca wykorzystywania EBM w praktyce klinicznej w badanej grupie była wysoka. Położne rozumiały korzyści wynikające z posiadania aktualnej wiedzy medycznej, nie tylko w zapewnianiu jakości udzielanych przez nich świadczeń, ale również w zakresie ochrony ich odpowiedzialności zawodowej. 3. Istnieje konieczność poszerzenia umiejętności położnych w zakresie wyszukiwania dowodów naukowych.

Słowa kluczowe - praktyka położnicza oparta na faktach, bezpieczeństwo, jakość opieki położniczej.

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- A. The idea and the planning of the study
- B. Gathering and listing data
- C. The data analysis and interpretation
- D. Writing the article
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I. INTRODUCTION

The ability to use and apply up-to-date study results by health care personnel: doctors, nurses or midwives in their everyday clinical practice, is necessary to provide effective and safe nursing care of the highest standards [1-11].

Global trends indicate that midwifery practice places increasingly heavy emphasis on the use of study results, which should benefit not only patients' safety, medical personnel and effective medical procedures, but also their financial effectiveness [1-11].

Education of students of undergraduate and graduate degree programmes in midwifery at medical universities

with long-term experience in conducting studies and applying their results in clinical practice should put more emphasis on teaching methodology of scientific research, critical analysis of their results and critical reading of scientific papers which are all key elements of the evidence-based midwifery practice.

Aim of the study

The aim of the article was to analyse knowledge and attitudes of students in midwifery towards professional practice based on scientific evidence and using up-to-date study results in their everyday clinical practice.

II. MATERIALS AND METHODS

Materials

The study included 58 female students of extra-mural undergraduate (bridging) studies in midwifery (100% of women). Mean age of the group was 44.34 years (min. 36, max. 55, SD: 4.632). As regards their marital status, 46 persons were married, 5 persons were single, 5 persons were divorced, and two were widows. The largest part, including 25 persons, came from the city with a population of 100,000 inhabitants, 15 women came from the countryside, 10 persons from the city with a population of more than 500,000 inhabitants, and 8 persons – from the city with a population between 100,000 and 500,000 inhabitants. In the study group, 50 persons had secondary medical education, 7 persons had a master's degree and 1 person – a bachelor's degree. The substantial majority (57 women) worked as midwives, 54 were employed full-time under employment contract. 79% of women worked in the public healthcare sector, and only 21% in the private sector. Mean length of service in the study group was 19.92 years (min. 5, max. 32, SD: 6.152). The largest group of persons were employed in general hospitals (29 persons), community care (9 persons), or research and teaching hospitals (7 persons). There were single cases of women employed in a birth centre and institute. A vast majority were senior midwives, 3 persons were coordinating midwives, one was a head nurse and one worked as an assistant head nurse. 21 persons from the group completed at least one training course, 20 of them completed qualifying courses, 20 – specialist courses, and 13 midwives had medical specialties in one of the areas of midwifery practice.

Methods

The study was conducted on March 2nd 2014 during seminar classes on Scientific Research in Midwifery. The meeting was moderated by scientific and didactic workers of the Division of Teaching and Outcomes of Education, Faculty of Health Science at the Medical University of Warsaw. To ensure adherence to guidelines defining methodology of conducting focus research, 58 participants were divided into two groups in the alphabetical order based on their last names: one group consisted of persons with names starting with letters A-L, the second one – with letters M-Z. Such division guaranteed randomised assignment to each of the two focus groups.

The study was of pilot and qualitative nature. On the basis of the Polish and international scientific literature on evidence-based midwifery practice, key issues were identified and written down in the form of a discussion scenario.

The study was carried out with a semi-structured group interview method, which uses a set of already prepared questions and rules set forth on the basis of the earlier review of subject-related literature. However, it allows moderators to delve into a topic they find interesting. The planned topics were presented at the meeting in the form of a PowerPoint presentation and a flipchart board was used to write down slogans and key words related to evidence-based midwifery practice which participants proposed.

In line with standards for conducting qualitative research – interviews – the study was conducted in a specially arranged seminar room with a round conference table to allow participants and moderators to make continued eye contact with each other, multimedia projector, white flipchart board and sheets of paper to make notes.

The interview was indirect as respondents had not been informed about taking part in a qualitative study. The discussion held at the meeting was registered with voice recorders. After the meeting, the results – recorded discussion and slogans written down on the flipchart board – were subject to critical analysis. The meeting recording file in the mp3 format can be accessed from the authors of this article.

Table 1 presents a detailed scenario of the semi-structured group interview.

Table 1. Semi-structured group interview scenario

1	Knowledge of the definition and meaning of the terms: <i>Evidence-based Medicine (EBM)</i> and <i>Evidence-based Midwifery Practice (EBMP)</i>
2	Knowledge of the definition and criteria of scientific evidence
3	Frequency of using Polish/international scientific literature for midwives, knowledge of scientific and professional magazines
4	Knowledge of sources of scientific evidence
5	Ability to evaluate scientific data in terms of its reliability; opinions of the study group as to who and when should teach students such skills
6	Possibilities for using evidence-based midwifery practice in one's workplace
7	Attitude of the managing staff towards continuing education of midwives
8	Opinions of the study group on advantages and disadvantages of EBMP in midwifery practice
9	Possibility of upgrading the quality of care for patients and medical personnel's safety by putting EBMP into practice in workplace

III. RESULTS

Midwives taking part in the study could correctly define EBM and EBMP, knew their meanings and provided full explanations in Polish (*Medycyna oparta na badaniach naukowych, na dowodach*). They could not provide their full name in English, though. As a source of knowledge on this topic they indicated classes attended in the course of their specialisation programme. After having been introduced to the full terms of *Evidence-based Medicine* and *Evidence-based Midwifery Practice*, most of the midwives admitted to not having come across those full explanations in English. Further, the midwives were provided with definitions of *Evidence-based Medicine* and *Evidence-based Midwifery Practice* with an emphasis placed on their key element, that is scientific evidence. The next point was related to the knowledge of criteria according to which *scientific evidence* is defined. The midwives were requested to write down on the sheets several terms which they associate with *scientific evidence*. Table 2 presents terms describing scientific evidence according to the midwives (repetitions were omitted).

Table 2. Knowledge of definitions and criteria of scientific evidence – terms describing scientific evidence according to the midwives

SCIENTIFIC EVIDENCE		
Studies	Credibility	Methodology
<ul style="list-style-type: none"> • case study • proceedings • research-supported, proven • scientific research • observations • demand • time span • volunteer • fact • knowledge • defined problem • publication • collected into a group • reason • thought • consultation • scientific problem • case • grounds for a theory • verification • influence on an individual • experience • innovation • arguments 	<ul style="list-style-type: none"> • visual, visible • statistics • current • important for the general public • well-proven • recursive problem research • comparison with similar cases • confirmation of a case • procedures • positive • documented information • in line with current knowledge • objective attitude • credible • measurable • incontrovertible • reliable • true • representative group 	<ul style="list-style-type: none"> • control group • literature • research team • wilful consent of the participants • clinical studies • discussion • place • organisation • equipment • hypothesis • research object • process • procedures • multi-stage approach • documentation • interview • diagnosis • material • analysis • problem, thesis, assumption • evaluation • findings • study results • comparison • method

Later at the meeting, midwives were asked to provide the definition of scientific literature together with sources of scientific evidence they were acquainted with. Conferences and the Internet were the most popular sources for searching out scientific evidence mentioned by the midwives from the study group, thanks to which students can access medical articles, recommendations or “*something more definite and insightful than medical discussion forums*”, as well as specialist literature in a given field of science, particularly with regard to magazines and books. It was noted that to consider an online scientific article to be credible, it must be up-to-date and written by an expert in a given field, supported by other publications and based on a representative group of studied persons. Google was the leading browser used by the study group members to search out scientific articles. Many midwives

enumerated Polish journals of obstetrics which they know and read. The main reason why they use professional literature is their desire to broaden their knowledge, find out „something new” and become acquainted with novelties in medicine. The most popular journals were: *Magazyn Pielęgniarki i Położnej, Medycyna Praktyczna, Ginekologia po Dyplomie, Położna. Nauka i Praktyka, Położna Środowiskowa, Klinika Pediatryczna*. The midwives unanimously stated they do not read scientific literature regularly, although “*throughout our studies, we are constantly (...) obliged and in a way forced to continually upgrade our knowledge, keep searching for new information not to fall far behind*”.

A substantial part of the midwives participating in the study decide to attend conferences and symposiums. From the listed disciplines, they participate in meetings dedicated to midwives or doctors on labour law, preterm birth and many other problems in the world of medicine. Economic reasons are the only constraint on participation in symposiums and conferences. “*It is necessary to read, listen to and attend because one can always come back enriched with something nice, something new. It is of great value*”.

The midwives stated that in their everyday practice they use recommendations which include “*studies, experiences and formulated conclusions, described by a group of people who keep an eye on them*”. A prerequisite for ensuring that recommendations and their basic principles be substantially correct requires them to keep up with and adhere to changing conditions and trends in health care. A substantial part of the midwives questioned correctness and validity of recommendations used in everyday clinical practice: “*(...) it is a nonsense that every woman who has undergone caesarean delivery must have the blood pressure taken twice a day (...) just for the sake of taking it since that is what recommendations say*”. “*Recommendations are produced by persons packed with theory who do not have the faintest idea of what practice is about*”. According to the midwives, knowledge, observations and experiences gained at work can help change actions and behaviours observed nowadays. Examples of changes put forward by the midwives included using vertical positions in the perinatal period, mobilising women after surgery within 12 hours, discharging patients on the third day following delivery, bathing a newborn baby upon hospital discharge or observation of bleeding with the use of panty liners. A very lively discussion broke out with regard to the provision included in recommendations which relates to performing Pap test less frequently than once a year. “*In line*

with the recommendation, in performing Pap test and examining the sample of cells, one cannot dismiss the human error factor. It suffices that a person takes the sample badly, a pathologist checks it badly, and after 5 years a patient ends up with an advanced stage of a disease". "When in the surgery, we ask women not to stint 30 zloty a year on Pap test. Although the recommendations state otherwise, we provide patients with this information to have a fair and objective view of the situation", said midwives and pointed out that present recommendations comprise wide generalisation of prescriptions and procedures, which is why they do not refer directly to every individual. "We are not the mass!"

The study group declared they did not feel prepared to carry out a critical analysis of scientific articles and expressed a desire to learn new methods and rules to this end. The midwives could not indicate parts of research papers which should be considered in a critical evaluation of the research material. When the moderator presented such factors as the aim, proper selection of a study group or preparation of a relevant research tool, the midwives considered such knowledge as extremely useful because they had never paid attention to such things before. Knowledge obtained in this field would help to develop skills at searching professional medical literature, gaining critical approach to literature on the subject and, consequently, would help influence and change valid medical recommendations which the midwives substantially disapprove of.

In the interviewed women's opinion, in order to update, upgrade and adjust valid recommendations to the reality it is necessary to conduct new studies and collect scientific evidence which would confirm validity of innovative techniques and actions. Midwives show enthusiasm about undertaking and participating in research, but these actions are constrained by lack of clout in medical environment, time and necessary extensive qualifications. The key elements mentioned in the group discussion were relevant knowledge and degree obtained in a given field in order to be creditworthy and perceived differently. Although on the one hand professional titles do not translate into knowledge and experience as "patients do not know them because they do not care – it is important for hospital governing bodies", on the other one "having a master or doctoral degree makes you perceived by patients and doctors differently – then, we are considered partners at work". The discussion also raised a problem of addressing midwives as nurses ("siostry") which seems offensive and humiliating to such health care employees as midwives.

In the final part of the meeting, the midwives were asked about the attitude of the managing staff towards upgrading professional qualifications, including a bachelor degree in midwifery, and towards self-study and personal development in their field of expertise. This sparked off a lively discussion and caused outrage of the midwives. Only one-third of the midwives from the group obtained an official consent of the hospital executive team to go to university. The substantial majority of the midwives were refused research leave, which would allow them to attend classes within the first-cycle degree programme. As a result, they had to use up their holiday entitlement for that purpose. "When I said I needed a research leave, I heard the answer: 'Oh, come off it, come off it! Half of the company's staff has done such studies!'". There is a high risk of competition on the job market which someday will become a threat to them (to superiors)". An argument behind such reactions lies in the managing staff's objection against educational and professional development of their employees. Some midwives obtained consents of the managing staff, but on condition of being fully available to superiors at the cost of one's own time off-work. It is alarming that part of the study group was forced to upgrade their professional qualifications without an official consent, in secrecy from colleagues and managing staff in the workplace.

To sum up the meeting, the midwives stated that such a thematic scope and type of classes are an unusually valuable source of knowledge of scientific research and criteria according to which their relevance and credibility are assessed. In their opinion, using the latest studies and undertaking innovative actions and modern procedures of proven effectiveness in everyday clinical practice can translate into better and more convenient healthcare services, cost reduction, greater inner-satisfaction and safety. More extensive knowledge in this area could help popularise partnership relations between midwives and doctors, change the status of this profession and raise its prestige. „Nowadays, a midwife is not someone who makes coffee and serves tea, but someone who educates and has extensive and specialist knowledge".

IV. DISCUSSION

In the available databases of world literature (PubMed, SCOPUS, EMBASE, PROQUEST, data retrieval period: 1st January 2000 – 2nd November 2013, language: English, key words: *midwifery, evidence-based practice, evidence-based midwifery practice*) there were 7 search results on the techniques of using specific elements of

evidence-based midwifery practice [12-18] and 5 on using EBM and EBP by midwives [19-24].

In the Polish database of scientific literature (Polish Medical Bibliography) there were no search results related to knowledge and attitudes of midwives towards using study results in everyday clinical practice.

The study results presented here concern students of the bridging study programme in midwifery who work in profession and want to complete their education with a bachelor's degree in midwifery. Due to a specific character of the study group, Polish and world literatures lack any publications on a similar group of midwives, which is why the authors also referred to the literature on nursing environment [1-11, 25]. Publications were used only for information purposes to highlight the importance of using study results in nursing practice, which is why the article can be considered as ground-breaking in many respects.

Most publications underline that EBP-related issues more often refer to everyday clinical practice or basic health care than to syllabuses for midwifery and nursing students [4-11]. In Polish midwifery and nursing syllabuses the issues concerned with *Evidence-based Nursing Practice/ Evidence-based Midwifery Practice* are included in such courses as *Scientific Research in Nursing/Midwifery*, but they do not make up a separate course within the syllabus. Students in the study group were unable to tell who and when should teach them rules for assessing credibility of scientific publications and using evidence-based professional practice.

At present, due to changing tendencies, development of obstetrics and a specific nature of the profession, a midwife has to continuously upgrade her professional qualifications. By getting involved in a variety of forms of continuing education, she can behave professionally with patients and make steady professional development. In 2009, Kadłubowska *et al.* examined opinions of undergraduate students in nursing about upgrading professional qualifications. Findings of the analysis suggest that nurses are fully aware of the changes occurring in their profession and are eager to take challenges brought by the development and a need to improve qualifications despite numerous obstacles related to work system and incurred costs [25]. In the authors' own study, all midwives express their demand to take part in various forms of professional training and to steadily upgrade their qualifications. Moreover, they were motivated to work and seek challenges in their professional careers.

The results of studies by Florin *et al.* (2006) [7] conducted in Sweden on a group of 1,440 students from 26 different universities (68% of all nursing students)

showed that pre-clinical studies place definitely more emphasis on EBP-related competencies than clinical courses involving direct contact with patients. The results obtained by Florin *et al.* tally with the authors' own study findings. The study group also reported that while on duty they have no time to develop additional competencies to assess scientific credibility of publications. Moreover, the group also pointed out indecisiveness and impossibility of introducing changes to recommendations and midwifery procedures, which caused indifference to the latest study results, considered impossible to implement in everyday clinical practice. No such opinions have been found in the world literature, firstly because the study involved primarily midwifery students and secondly – in many countries in the world nurses and midwives have definitely better professional qualifications than in Poland.

Similar results were obtained by Morris *et al.* [11], who carried out studies on a group of graduate students attending classes in EBP within the undergraduate programme. Morris analysed students' self-appraisal of their clinical competencies. The results confirmed that attendance at classes on EBP translates into students' higher self-appraisal and confidence about their level of preparation for clinical classes and tasks assigned at work. It is worth noting that according to students, lack of time and a peculiar organisation culture, which prevents nurses from using latest study results in their everyday clinical practice in a satisfactory manner, are the factors which limited application of EBNP principles in their work with patients. The authors' own studies also indicate that lack of time for personal development and exploration of new and credible study results is the main factor limiting the extent of using the research by midwives.

Studies conducted by Bogdan-Lovis *et al.* [21] were based on structured individual interviews with 21 midwives working professionally in general and regional hospitals with a view to comparing their knowledge about ways of accessing and practising evidence-based medicine. Responses were processed, coded and compared in the specialist programme designed to manage qualitative data by using key words and phrases, such as EBM, Cochrane or systematic review. The results showed that the midwives working both at general and regional hospital have extensive general knowledge about EBMP, but their answers to specific questions concerning EBMP practices indicate that they have not fully understood EBM and EBMP concepts or their application. Similar results were obtained in the authors' studies, where midwives could correctly explain EBM and EBMP abbreviations, knew their general idea, mean-

ings and explanations in Polish, but were unable to apply their elements: critical assessment of scientific literature in terms of their credibility or usefulness in clinical practice or search for scientific articles on the Internet.

IV. CONCLUSIONS

1. The level of knowledge of *Evidence-based Midwifery Practice* and of possibilities of using study results in midwifery practice among the study group was passable.
2. The awareness of benefits resulting from using the most recent study results in everyday clinical practice was high. The midwives understood benefits resulting from being up-to-date with medical knowledge, involving not only quality assurance of their services but also protection of their professional liability.
3. It is necessary to expand the skills of midwives with reference to searching for scientific evidence.

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