



DEVELOPMENT OF RESEARCH ACTIVITY AMONG NURSES AND MIDWIVES IN BULGARIA – DELPHI SURVEY

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ABSTRACT

Conducting research in nursing and midwifery is a relatively new area in Bulgaria. There is no national strategy for research in health care. Conducting scientific research is still a serious challenge for nurses and midwives.

The purpose of the study is to propose directions for the development of research activity in health care in Bulgaria by experts with concrete measures.

Material and Methods: A Delphi survey was conducted in two stages among authorities at a national level with contributions to the development of health care.

Results: There was a consensus about the definition and scope of “research in health care” and about the need for a national strategy. All of the experts expressed agreement on the presented measures and the necessary development actions. They have common ideas and a vision for the future development in this field.

Discussion: According to the international development of healthcare research, five main directions have been adopted. Some of the necessary measures are investing in education for research, integrating research into practice, enforcing collaborations between educators and practitioners, and funding. Bulgaria’s health care research activity should be encouraged and stimulated with appropriate measures and adequate activities.

Conclusions: The findings of this study have significant implications for universities, educators, leaders of the professional organization and other stakeholders in the field of health care. The proposed measures are a base for developing a national strategy for research and for applying evidence-based practice in the future.

Keywords: research, nurses, midwives, development,

INTRODUCTION

The first nurse researcher is Florence Nightingale with her work during the Crimean War (1850), but for a long time no one followed her example. The development of nursing research in Europe was observed in the late 20th century. A significant moment was the creation of a working group of European nurse researchers (Workgroup of European Nurse Researchers - WENR) [1, 2]. The group started active work on the development of nursing research in European countries by organizing conferences and meetings in different countries. WENR has been active for 25 years, during which time it has organized 39 events published more than 60 articles. In 1972, a report from the Committee on Nursing in the UK was published, which recommended that nursing should become a ‘research-based’ profession, and this was a turning point historically in the development of nursing research.

Within the framework of the Sixth European Research Framework Program for the period 2002-2006, the European Commission envisages the implementation of a project: “Specific Support Action to establish a European Platform for Nursing Research”. The project took place in 2005 and aims to take a “snapshot” of the state of nursing research in healthcare in Europe with a focus on public funding and policy [2]. Some of the results of the 2005 review, followed by a progress report in 2007 of the status of research in health care in the European countries were: difference in the definition of the term research in the field of health care; lack of reliable comparative data in Europe on relatively clear issues such as the absolute number of nurses and number of nurses; strategies and priorities for scientific research in health care exist only in some countries; in most countries there is a lack of opportunities for career and development in research activity.

In May 2013, the European Federation of Nurses Associations established the European Nursing Research Foundation (ENRF). ENRF presents a Strategic and Operational Research Plan for the period 2017-2020 [3]. The foundation defines four priority areas for scientific studies and research activity, corresponding to the health priorities of the population of Europe. Education of nurses in Europe to improve their and research competencies and capabilities is one of these priorities.

In the Strategic and Operational Research Plan of ENRF for the period 2021-2024, the first three priority areas were preserved, and the last one, aimed at innovation, is expanded and reads as follows: Digitalization of the Healthcare ecosystem with a specific focus on AI [4].

Various studies have been conducted on the need to develop the research skills of nurses. Analyses of publications by nurses in 2010 and 2013 from various European countries, for example, show that research in nursing remains overwhelmingly descriptive [5]. The authors emphasized that researchers in nursing must become better educated and skilled in developing, testing, evaluating, and reporting complex nursing interventions.

The new framework of the European health policy "Health 2020" aims to improve the health and well-being of the population and reduce inequalities. In order to support the realization of the "Health 2020" goals, European strategic directions for strengthening nursing and midwifery towards the Health 2020 goals have been developed [6]. In 2015, the European Office of the World Health Organization (WHO) published the European compendium of good practices in nursing and midwifery towards the Health 2020 goals. Priority areas for action include a focus on evidence-based practice and innovation, delivered through training, research and governance. The WHO calls for expanding the role of nurses in their practice by conducting scientific research. A number of studies prove the importance of scientific research in improving the quality of health care [7]. The topic of implementing evidence-based practice in health care is also increasingly relevant. A bibliometric analysis of nursing publications in Web of Science databases shows that high-quality articles play a role in improving both the quality and quantity of related research. The authors emphasize that "the highly cited articles reveal new perspectives in the nursing field, providing inspiration for nursing management and education researchers" [8]. It is also important that nurses must interpret adequately the information provided by scientific publications, to assess the value of the results for the practice, to have the competencies to implement and apply the results [9]. According to other authors, to preserve and develop nursing as a patient-centered profession, nursing research must be valued, promoted, and invested in. It is a moral and professional responsibility to protect and develop nursing research if nursing is to ensure the health of the society it claims to

serve [10].

Changes in education and the regulatory framework have created new opportunities for the development of nurses and midwives, not available to them until now such as: to become university educators; health care managers at different levels in medical facilities; to hold administrative positions in regional healthcare structures, management positions in non-governmental organizations, etc. The collaboration between different structures in health care is also an essential element and a basic competency domain in the Caring Advanced Practice Nursing Model [11]. These possibilities are an objective prerequisite for the development of scientific and research activities. In the following years, however, extremely low scientific activity was observed.

In Bulgaria, research activity among nurses and midwives is a relatively new professional area. The modern requirements of patients and the whole society for the quality of health care, which must correspond to the latest scientific achievements, has a significant impact on the professional knowledge and skills of nurses and midwives. Conducting scientific research in health care is an integral part of these competencies. This activity marks its beginning in the first years of the 21st century with radical changes in education and practice in our country in response to European requirements.

Various authors evaluate the training of nurses and midwives in our country as very good, which meets modern European standards, which gives the opportunity for more active participation in scientific research work and conducting studies in health care, as well as to develop these [12]. The increase in practitioners conducting research indicates a desire for professional development, but innovative practices must be sought to stimulate this activity alone or in collectives with educators [13]. This will contribute to the expansion of competencies in health care, which has a positive impact on both education and the management of their practical activity [14].

In the "Strategy for the Development of Health Care in the Republic of Bulgaria from the 2013 to 2020", written by The Bulgarian Association of Health Care Professionals there are some recommendations about development of nursing researches [15]: development of scientific research capacity in medical universities and ensuring the connection between science and the application of scientific developments in the practice of healthcare professionals; creation of organizational prerequisites for realizing the principle of unity of medical science and practice; study of the needs of the population, economic efficiency, accessibility and satisfaction with health care; developing scientific question and conducting scientific research in the field of health care.

A number of legal documents in the country regulated the conduct of scientific research by graduate nurses and midwives, but the curricula of the bachelor's programs

in both specialties do not include training for this activity [16].

The aim of the study is to reach a consensus among experts on the main directions for the future development of nursing and midwifery research activity in Bulgaria in accordance with international development and to propose concrete measures in every direction.

MATERIALS AND METHODS

A Delphi survey was conducted in January 2022 among authorities at a national level with contributions to the development of health care in two stages. Only 37 individuals (7 professors and 30 associate professors) met the criterion of having acquired a doctoral dissertation and made a significant scientific contribution. In the first stage of the study, a total of 18 persons from all over the country and meeting the pre-set selection criteria were randomly selected and invited to attend in the project, and 15 of them (41.0%), from 7 universities, expressed a desire to participate in the Delphi survey.

To ensure effective application of the method and obtain reliable results, we follow six steps:

1. Development of primary questions for the individual survey of persons.

2. Determining the persons for Delphi – heads of health care departments, professors and associate professors (from 12 to 15 persons) will be involved as experts. It is very important to select individuals who are interested in the topic of the research, because this will maintain their commitment to participate in the individual stages. Individuals were sent invitations to participate in the study by e-mail.

Criteria for inclusion of persons:

- have a basic specialty of “nurse” or “midwife”;
- participate in the education of nurses and midwives;
- have obtained a doctorate degree and are directly involved in research in health care;
- professor or associate professor, who are head of the department.

3. Preservation of the anonymity of participants.

4. The time to collect answers from the questionnaire is within 1 week (questionnaires are sent and returned by e-mail).

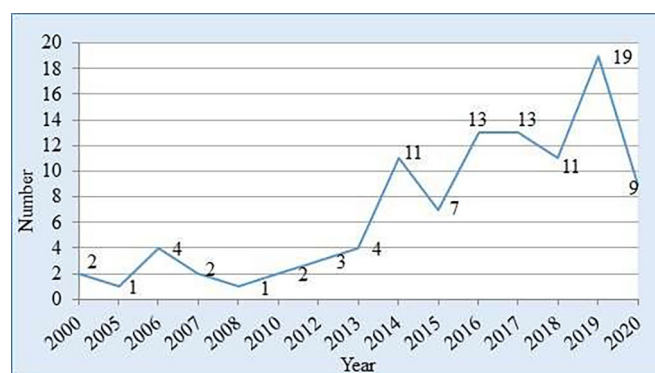
5. Processing of results. The participants are introduced to the opinion of the majority, as well as to the widely differing opinions. Upon familiarization with the results, a second questionnaire with reformulated answers is also sent.

6. The opinions from the second questionnaires are summarized.

In the National Centre for Information and Documentation in our country, there is a public information and register of scientists and dissertations defended [14]. The information was reviewed, and 102 nurses and mid-

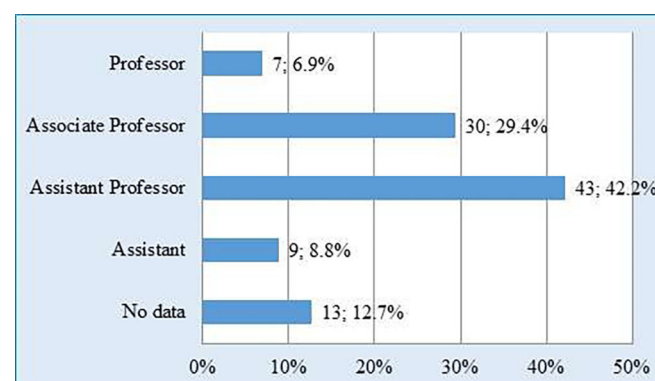
wives who obtained doctoral degree during the period from 2000 to 2020 were identified. Nurses are 78.4% (N=80), and the midwives are 21.6% (N=22). Until 2010, only 11 nurses and 1 midwife defended a dissertation and obtained a doctoral degree. During 2010, a new Law for the Development of Academic Staff in the Republic of Bulgaria was adopted. From 2010 to 2020, a total of 90 nurses and midwives acquired doctoral degree in different medical universities. In Bulgaria the doctoral degree for nurses and midwives was developed for the first time in 2016, only in “Management of Health Care”. Before that (from 2000 to 2016), nurses and midwives defended their doctorates in the medical specialty “Social Medicine and Organization of Pharmacy” (program for physicians). After 2010, the number of nurses and midwives who obtained doctoral degree increased significantly, and since 2016, there has been an upward trend (Fig. 1).

Fig. 1. Dynamics in the number of nurses and midwives who have obtained doctoral degree by years for the period 2000-2020.



The data in the register also provided information on the academic position held by the respondents at the time of the study, presented in Fig. 2. The majority of persons with a doctorate degree are academic teachers (87.3%).

Fig. 2. Distribution of individuals with doctorates by their current academic position as n (%) along the x-axis.



Ethical Consideration. The Ethics Commission at the Medical University – Pleven approved the study (No.650/20.07.2020). For the study, 18 people were randomly selected based on pre-set selection criteria and were invited to fill a questionnaire. Fifteen (n=15) of them have given informed consent to participate in the Delphi survey. In this study, no patients were involved.

RESULTS

After conducting the second stage, the experts adopted a definition for the concept of “research activity in health care” in Bulgarian. A total of 86.7% of the experts agreed that the research activity in health care includes: conducting research, participation in a conference with a poster or with an oral presentation, working on a research problem and publication of an article.

Experts have come together around the idea that the “Strategy for the development of research activity in health care in Bulgaria” should be part of the National Strategy for the development of health care. Such a strategy should be developed by a specially formed team of experts from all over the country who are nurses and midwives and have experience in conducting scientific studies. Team members should also include representatives from all higher education institutions that train nurses and midwives, as well as the leadership of the professional association.

The questionnaire’s 13 questions and statements referred specifically to research developments and measures needed. There were 2 statements that the experts agreed with over 70 %, and 11 were endorsed by over 90 % of the experts. In the second stage, there were no objections and all expressed agreement on the presented measures and the necessary development actions. The experts have common ideas and a vision for the future development of scientific research. After conducting the second Delphi round, they reached a consensus on the principles to be followed when developing the strategy:

1. It is necessary to have an active research institution at the national level and a department in the universities. Research units should also be led by nurses and midwives, and their activities should be aimed at initiating scientific projects, attracting young researchers, close cooperation and implementation of common scientific projects with health institutions, conducting training for scientific research.

2. At the time of the survey, there was only one master’s degree program for nurses and midwives in Health Care Management. There is a need to develop new master’s programs in health care, as well as to initiate regulatory changes to regulate the education, professional realization and opportunities for academic development of these masters. In accordance with the European experience, the experts suggested that new master’s programs be de-

veloped for various fields such as: paediatrics, mental health, primary health care, emergency health care, obstetrics, community health care etc.

3. According to experts, providing financial support from employers of nurses and midwives involved in health research projects is a measure that stimulates scientific research in health care practice.

DISCUSSION

Joint efforts, collaboration and cooperation between all participants in the process are extremely important for the successful development and consolidation of research activities in healthcare in Bulgaria. A professional atmosphere of trust, support and cooperation are the basis of effective results. In the questionnaire, we proposed two questions on consensus on the definition of the term “Research activity in healthcare”, because there was no unique one in the native language theory. We proposed a definition, to which the experts gave their suggestions for addition and consensus was reached in the second round that: “Research activity in the field of health care is any systematic creative work of health care professionals, which uses a scientific approach to the development of knowledge and skills, based on analysis of existing professional theoretical and practical training, tests hypotheses, approves interventions based on human response and leads to the development of innovative applications of available knowledge. The main objectives of research are new advances in science and practice, and the introduced innovations to lead to improved quality of health care and patient safety by providing evidence-based care.”

The next questions proposed were in line with the recommendations of the European Commission and cover five main areas. The experts accepted the suggested five directions and united around the following measures to be taken:

1. To create a structures and organization for nursing and midwifery research, such as: a research department at the universities in the field of health care; a National Research Centre in order to coordinate and support regional structures; an administrative structure for the coordination of research in health care in hospitals at the national level.

2. Integrating research into practice: developing Guidelines for conducting research with the participation of nurses and midwives; initiation of research projects in clinical practice by collaborative teams between educators and practitioners; establishment of an electronic database for research.

3. Education for research activity: to ensure adequate education for research at each educational level; regulation of the main competencies for research in basic education at the national level; development of new mas-

ter's programs for clinical care; attracting students (nurses and midwives) in research projects.

4. Funding nursing and midwifery researches: initiatives to involve nurses and midwives in research projects funded by higher education institutions; use of different opportunities for funding research; financial support for students and practitioners from employers for research activities; establishment of a research fund for research on a competitive basis at the professional organization.

5. Measures for national and international cooperation: organizing joint initiatives between universities; attracting facilities (participation in research projects, conferences, forums); organizing round tables.

The experts made proposals for specific measures and actions to change the attitude and actions of the management of medical institutions, related to continuing education, specializations, conducting scientific research and participation in scientific forums:

- the management of each medical institution must determine its actions regarding support for continuing education, specializations, participation in scientific forums and conducting research;

- legislative changes related to the differentiation of the activities of specialists according to their qualifications are needed by adding new positions, such as "nurse-researcher";

- promoting opportunities for funding scientific research by nurses and midwives;

- development of project activity with included funding for training and publications in specialized journals.

International and European health care recommendations are for the development of research and evidence-based practice, which is the responsibility of each country. In Bulgaria, there is a need for active actions to encourage nursing research and to develop a national policy.

The proposed measures can be used in the development of a national strategy for research and for applying evidence-based practice. The directions of development determined by the experts are in accordance with WHO recommendations as well as European requirements for evidence-based nursing practice.

Limitations of the study. At the time of the survey, 15 experts in health care were covered (41% of the total of 37 persons who met the criteria in the country), but in the last few years, the number of professors and associate professors has been significantly higher. The study can be repeated with a larger number of participants, which will reinforce the importance of the problem and direct their attention to more active actions that are within their powers. The study will have a more serious influence if international experts are included in the sample, who will be familiar with the current situation in advance. Research on this topic has been expanded with other studies of different design and methodology (including students, educators and practitioners) to collect more data so that serious action could be taken at the national level.

CONCLUSION

The specific proposals for actions and measures that are in line with international recommendations and the results of the Delphi study should be promoted among the professional authorities. The findings revealed significant information for universities, educators, leaders of the professional organization. The findings of this study have significant implications for universities, educators, leaders of the professional organization and other stakeholders in the field of health care.

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